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SEÑOR JEFE
DIVISION DE NUEVAS CREACIONES
SUPERINTENDENCIA DE INDUSTRIA Y COME
E. S. D.

SUPERINDUSTRIA - COMERCIO
Radicación : 00031598 00000000 Folios: 450
Fecha (AAAA): 2000-05-03 17:00:59
Dependencia: 8020 DIVISION DE NUEVAS CREACIONES

COD. 08

157

REF.: SOLICITUD DE PATENTE
EXPEDIENTE No 00031598
FECHA DE SOLICITUD: MAYO 3, 2000
SOLICITANTE: THE CHASE MANHATTAN BANK
TITULO: MÉTODO Y SISTEMA PARA PROCESAMIENTO DE PAGOS POR INTERNET USANDO LA RED DE TRANSFERENCIA DE FONDOS ELECTRÓNICOS

DILIA RODRIGUEZ D´ALEMAN, en mi condición de apoderada de la sociedad solicitante, en esta oportunidad por el presente escrito me permito presentar:

1. Copia certificada de la prioridad reivindicada de Estados Unidos Nº 60/132,305 de Mayo 3 de 1999.

2. Copia certificada de la prioridad reivindicada de Estados Unidos Nº 60/150,725 de Agosto 25 de 1999.

3. Copia certificada de la prioridad reivindicada de Estados Unidos Nº 60/161,300 de Octubre 22 de 1999.

4. Copia certificada de la prioridad reivindicada de Estados Unidos Nº 60/163,828 de Noviembre 5 de 1999.

5. Copia certificada de la prioridad reivindicada de Estados Unidos Nº 60/173,044 de Diciembre 23 de 1999.

6. Copia certificada de la prioridad reivindicada de Estados Unidos Nº. 09/497,307 de Febrero 3 de 2.000

- Traducción al Español de las mencionadas prioridades.

Esta prioridad está siendo presentada dentro del término de 3 meses que exige el Convenio de Paris, toda vez que la solicitud fué radicada el 3 de Mayo de 2.000

Ruego a usted continuar con el presente trámite.

Señor Jefe,

DILIA RODRIGUEZ D´ALEMAN
LCD/srr

2

158

PA 247014

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 11, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***60/132,305***
FILING DATE: ***May 03, 1999***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

P. SWAIN
Certifying Officer

jc520 U.S. PTO
05/03/99

A / PROV 3

jc541 U.S. PTO
60/132305
05/03/99

159

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-95	Type a plus sign (+) inside this box -->	+

INVENTOR(s)/APPLICANT(s)			
LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
Cantor	Mark		c/o The Chase Manhattan Bank 140 East 45th Street, 11th Floor New York, NY 10017-3162

TITLE OF THE INVENTION (*280 characters max*)

METHOD FOR PROCESSING INTERNET POINT OF SALE PAYMENTS USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT

CORRESPONDENCE ADDRESS

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, NY 10036

STATE	NY	ZIP CODE	10036	COUNTRY	U.S.A.

ENCLOSED APPLICATION PARTS (*check all that apply*)

[X] Specification 12 Pages [3] Drawing(s) 3 Sheets [ ] Small Entity Statement

[ ] Other (specify)

METHOD OF PAYMENT

Our check No. 84272 is enclosed to cover the Provisional Application filing fee. The Commissioner is hereby authorized to charge any additional or missing fee to Deposit Account Number: 15-0700	PROVISIONAL APPLICATION FILING FEE AMOUNT ($)	$150.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government:

[X] No. [ ] Yes, Agency and Government contract number are: _____

Respectfully submitted,

SIGNATURE Michael J. Scheer Date 05/3/99

TYPED NAME: Michael J. Scheer REGISTRATION NO. 34,425

00400961.W51

05/03/99 jc520 U.S. PTO

METHOD FOR PROCESSING INTERNET POINT OF SALE PAYMENTS USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT

FIELD OF THE INVENTION

The present invention generally relates to methods for processing electronic payments purchases made over the Internet and more particularly to a method by which a consumer pushes a payment to an Internet merchant.

BACKGROUND OF THE INVENTION

Presently, there are several methods by which a consumer can electronically pay for purchases made on the Internet, such as credit cards, off-line debit cards, online debit cards, digital cash, and smart cards. Each of these methods has its own advantages and disadvantages. An off-line debit card uses the traditional credit card system for clearing the payment but no Personal Identification Number (PIN) is required. The use of an on-line debit card requires that the consumer supply his or her PIN, and the amount of the purchase is debited from the consumer's account instantaneously. One disadvantage with both the on and off-line debit cards, from a consumer's point of view, is the inability to reverse or repudiate the transaction. In contrast, by use of a credit card, the consumer at a later date can reverse the transaction (e.g., if the purchased goods are never shipped to the consumer).

It is predicted that credit cards will be the dominant on-line point of sale (POS) payment choice for at least the next five years. While new Internet payment

mechanisms have been rapidly emerging, consumers and merchants have been happily conducting a growing volume of commerce using basic credit card functionality. None of the emerging efforts to date have gotten more than a toehold in the market place and momentum continues to build in favor of credit cards.

Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line POS for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. In contrast to ACH transactions, credit and off-line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication).

Two significant drawbacks with some or all of the above models for Internet POS payments are that: 1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the potential merchants conducting business on the Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about

electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 100, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

SUMMARY OF THE INVENTION

In the method of the present invention, a consumer uses its Internet software to browse the Internet for goods being offered by various Internet merchants. Once the customer finds an item its wishes to purchase, the consumer's Internet software extracts from the merchant's web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer then transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the

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amount of the price quote and that the payment be made crediting the merchant's account at the merchant's bank. If there is sufficient funds in the consumer's account, the consumer's bank will return a payment advice digitally over the Internet which guarantees the payment. This payment advice is then transmitted by the customer's Internet software to the merchant's Internet server. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. In an alternative embodiment, the payment advice is transmitted via the Internet directly from the consumer's bank to the merchant's Internet server.

Payment totals for each merchant are settled on a daily basis using Electronic Funds Transfer via the regional ATM network infrastructure with funds being moved from the consumer's account at its bank to the merchant's account at its bank.

By the method of the present invention, both of the significant disadvantages of the prior art have been overcome. First of all, the consumer is no longer providing its confidential financial information to strangers over the Internet. Rather, the consumer is dealing directly with its own trusted institution, the bank. Furthermore, no pre-existing relationship has to exist between the customer and the merchant. The only requirement is that the merchant recognize and honor the guaranteed payment from the consumer's bank.

BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that

the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the method of the present invention; and

Figure 3 depicts a second embodiment according to the method of the present invention.

DETAILED DESCRIPTION OF THE INVENTION

In contrast to the credit card, on-line and off-line debit and other payment models existing today, one of the unique features of the method of the present invention is the flow of the payment instruction and the payment which follows. In the credit card, on-line and off-line debit models, a consumer provides the merchant with an instruction that authorize the merchant to collect funds from the consumer's bank account. Depending on the system, this payment instruction results in a guaranteed customer payment in the case of an on-line debit rather than a lengthy wait for funds (such in the case of a check) or something in between in the case of an off-line debit and credit card. The difference between the prior art models and the model of the present invention can be described as the difference between a "pull" and a "push" model. In the conventional models of today, the merchant "pulls" the payment from the consumer's account, while in the present invention the customer "pushes" the payment to the merchant's account.

Figure 2 illustrates a first embodiment of the method of the present invention. Prior to conducting any on-line purchases using the method of the present invention, the consumer establishes an Internet payment account (IPA) 230 with its bank 220. Once this IPA account 230 has been established, the consumer funds this account from its direct deposit account (DDA) 240. The establishment of a separate IPA 230 is preferable from a consumer's point of view in order to provide a separate accounting and statement from its normal DDA account 240. Furthermore, the IPA account might not be interest bearing and the consumer would accordingly only fund small amounts into this account in order to cover potential on-line purchases. In an alternative embodiment of the present invention, the consumer's payment request for credits and debits can be made directly against its DDA account 240. Furthermore, the IPA 230 can be funded from a consumer's Line of Credit or credit or debit card account held by the bank 220.

The consumer uses Internet browsing software 200 loaded on its personal computer in order to browse the Internet and visit the websites of various merchants. As a consumer browses the web site of a particular merchant, all of the information viewed by the consumer is downloaded onto the consumer's computer. This information downloaded to the consumer's computer includes prices for the goods and services offered by the merchant as well as an identification of the merchant's bank and account number at the bank. If a consumer decides to go ahead with a particular purchase, the consumer's Internet software 200 extracts from the downloaded information the price for the item and the identification of the merchants bank and account number.

A transaction identifier is preferably assigned at this time either by the merchant's Internet server 210 or the consumer's software 200

With this information captured, the consumer's Internet software 200 formats and transmits a message containing this information to its own bank 220. For example, this payment instruction from the consumer asks that fifty dollars be debited against its account #1234 and that credit be forwarded to merchant's account #5678 at the merchant's bank.

With respect to authentication, because the consumer's are pushing the payments to merchants, rather than the merchants pulling payments from consumer accounts, the consumers do not need to authenticate themselves to the merchant at the POS. Rather, the consumers authenticate themselves to their own bank 220 which then executes the payment to the merchant's account. The consumer's bank 220 will require some form of authentication of the payment request from the consumer. This authentication can be in the form of a software certification, an encrypted PIN, or the mother's maiden name of the consumer. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment request.

In fulfilling the payment request from the consumer, the bank 220 will initially verify that there is sufficient funds in the consumer's IPA account 230 to satisfy the payment request. If there are sufficient funds in the consumer's IPA account 230, the account is immediately debited or the funds held such that funds equal to the amount of the payment are no longer available in the customer's IPA account 230. The funds

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debited from the consumer's IPA account 230 are credited to the merchant's account 260 as described in more detail below. If insufficient funds are available in the customer's IPA account 230, the payment request is denied and the consumer's Internet software 200 is informed of the insufficient funds condition. In an alternative embodiment of the present invention, the consumer is provided with the ability to transfer funds from its DDA account 240 into the IPA account 230 such that sufficient funds are available to cover the payment request.

If sufficient funds exist in the IPA account 230 to process the payment request, the consumer's bank 220 generates a digital payment advice which is transferred back over the Internet to the consumer's Internet software 200. This payment advice is digitally signed by the consumer's bank 220, thus guaranteeing the payment. Once this payment has been digitally signed by the consumer's bank 220, all of the risk associated with this payment lies with the consumer's bank 220 and not with the merchant 210 or its bank 250 as with some of the models described above. For this reason, the model of the present invention is an attractive alternative to merchants conducting business on the Internet. Various forms of implementing the digital signature by the consumer's bank 220 are well known in the art.

Upon receipt of the payment advice from the consumer's bank 220, the consumer's Internet software 200 forwards this payment advice to the merchant's Internet server 210. Once the merchant has received the payment advice from the consumer's Internet software 220, the transaction can be completed by the shipment of the goods or provision of the service to the consumer.

The settlement process between the consumer's bank 220 and the merchant's bank 250 typically occurs once a day, at the end of the day. As described above, the consumer's IPA account 230 has been debited for the amount of the purchase. This debited amount now needs to be transferred to the merchant's bank 250 in order that a credit be applied to the merchant's account 260. In a preferred embodiment of the present invention, the merchant has established a deposit only IPA 260 in which funds can only be deposited and not withdrawn. This is a security feature which protects the merchant from various forms of electronic fraud. In the present invention, the consumer's bank 220 accomplishes the payment settlement via the conventional ATM electronic Funds Transfer process. Using this well known process, the consumer's bank 220 designates the merchant's bank 250 and the specific account 260 to which the credit of the purchased amount should be applied. Furthermore, the consumer's bank can include in the ATM message the transaction ID previously described for tracking and auditing purposes by the merchant and the merchant's bank 250. Periodically, funds from the merchant's deposit only IPA account 260 are transferred by the merchant bank 250 into the merchant's conventional DDA account 270.

Figure 3 illustrates an alternative embodiment of the present invention. All of the initial steps with respect to the consumer browsing the merchant's website and formulating the payment request which is forwarded to its bank 220 are the same as illustrated in Figure 2. The difference in the embodiment illustrated in Figure 3 as compared with the embodiment depicted in Figure 2 is that the payment advice from the consumer's bank 220 is forwarded directly to the merchant's Internet server 210.

This payment advice will therefore come on a separate Internet link from the link connecting the consumer's Internet software 200 to the merchant's Internet server 210. This feature will provide additional confidence to the merchant that the advice has indeed originated from the consumer's bank and is not a fraudulently generate advice.

The push model of the present invention has significant advantages over the conventional methods used today. This method is extremely easy for online banking customers to adopt. The method guarantees payment to the merchant without any concerns about repudiation inherent in the use of a credit card. The present invention reduces fraud loses compared to offline debit, credit card or checks. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with its own financial institution.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

We claim:

1. A method for effecting electronic payments for online purchases made by a consumer from a merchant, the method comprising the steps of:

retrieving a purchase amount and an identifier for a merchant's account from an Internet site of the merchant;

forming a payment request including the purchase amount and the merchant's account identifier;

the consumer transmitting the payment request to a financial institution at which the consumer maintains an account;

debiting the consumer's account;

generating a payment advice guaranteeing the payment amount will be credited to the merchant's account;

transmitting the payment advice to the merchant; and

crediting the merchant's account using the Automated Teller Machine (ATM) system infrastructure.

ABSTRACT OF THE INVENTION

A method for effectuating electronic payments for Internet purchases. Upon finding an item which itr wishes to purchase on an Internet retailer's web site, a consumer uses its Internet software extracts from the web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer then transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchants account at the merchants bank. The consumer's bank returns a payment advice digitally over the Internet which guarantees the payment, The payment advice is then transmitted by the customer's Internet software to the merchants. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. The customer's bank credits the merchant's account using Electronic Funds Transfer via the regional ATM network infrastructure.

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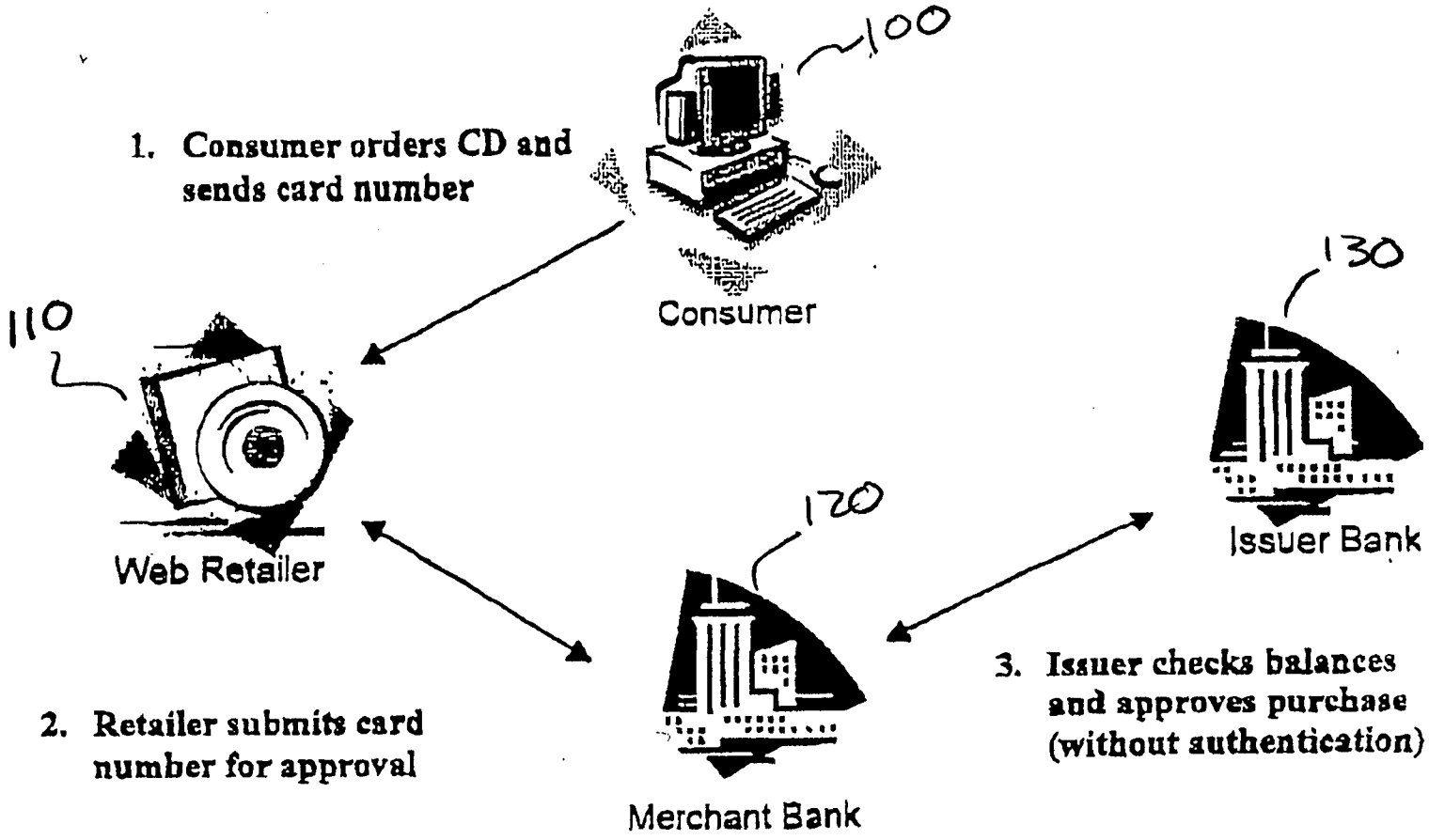


FIG. 1
PRIOR ART

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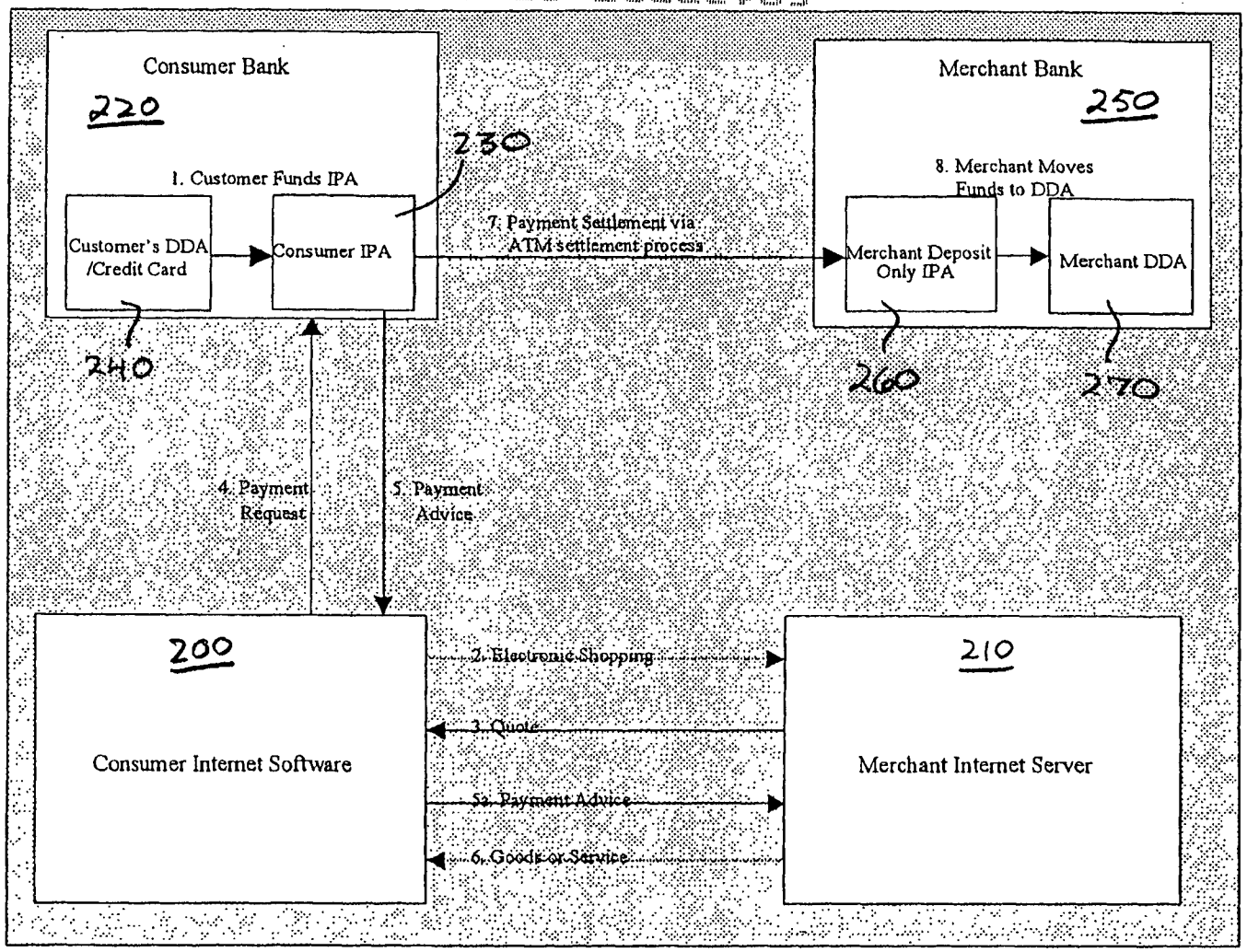

Consumer Bank
220
1. Customer Funds IPA
230
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
200
Consumer Internet Software
2. Electronic Shopping
3. Quote
5a. Payment Advice
6. Goods or Service
210
Merchant Internet Server

FIG. 2

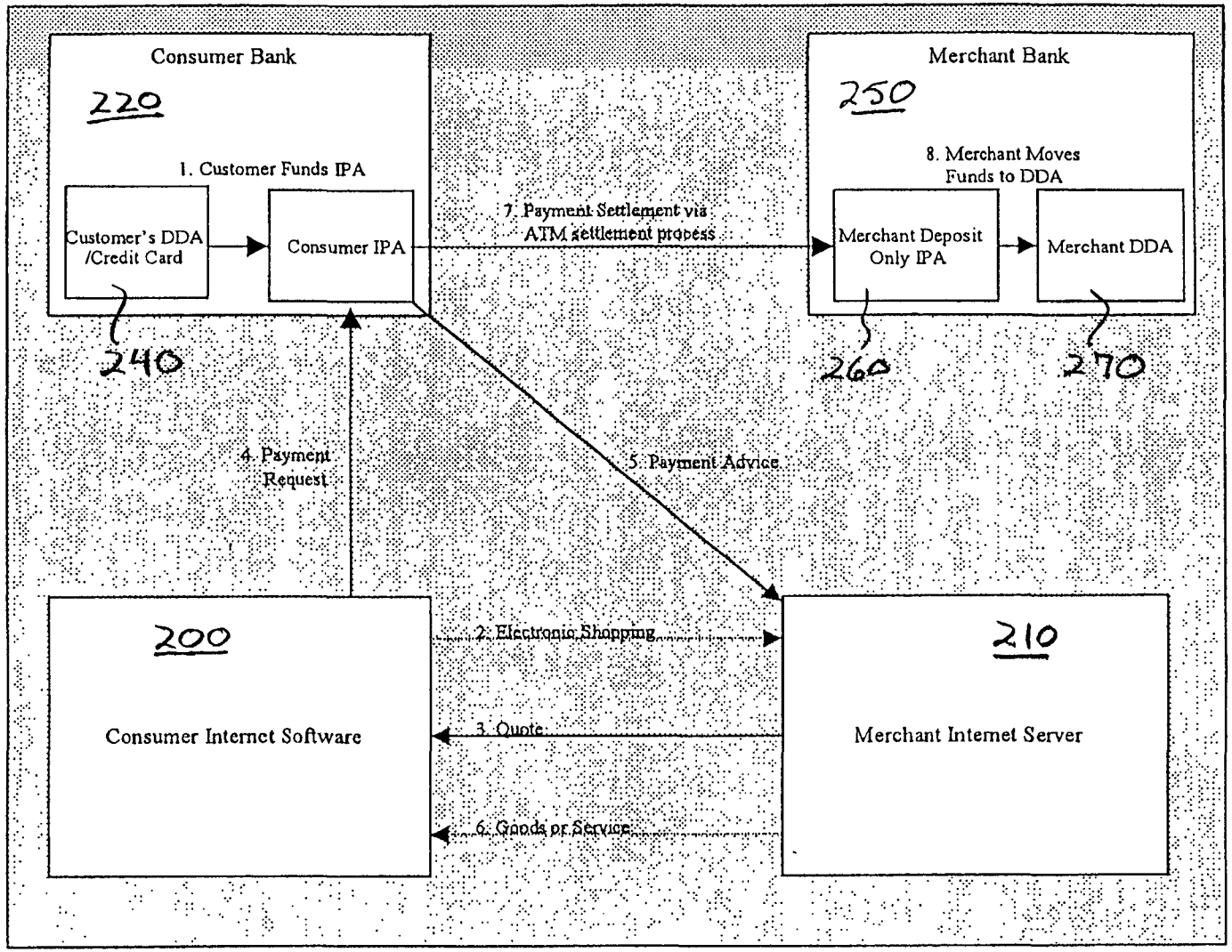

Consumer Bank
220
1. Customer Funds IPA
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
200
Consumer Internet Software
2. Electronic Shopping
3. Quote
6. Goods or Service
210
Merchant Internet Server

FIG. 3

A COVERBIND® COVER 1-800-366-6060
1/16" Classic PTO 16B3-1 for 1 to 15 sheets

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LOS ESTADOS UNIDOS DE AMÉRICA

A TODOS AQUELLOS A QUIENES LA PRESENTE LLEGARE:

DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Patentes y Marcas de los Estados Unidos

Mayo 11, 2000.

LA PRESENTE ES PARA CERTIFICAR QUE LA ANEXA A ESTA ES UNA COPIA FIEL DE LOS REGISTROS DE LA OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS DE LOS DOCUMENTOS DE LA SOLICITUD DE PATENTE IDENTIFICADA MÁS ADELANTE QUE SATISFACEN LOS REQUISITOS PARA QUE SE OTORGUE UNA FECHA DE PRESENTACIÓN BAJO 35 USC 111.

SOLICITUD NÚMERO: 60/132,305.

FECHA DE PRESENTACIÓN: Mayo 3, 1999.

Por la autoridad del

COMISIONADO DE PATENTES Y MARCAS

P. SWAIN

Funcionario Certificador

SELLO EN RELIEVE

177

CARÁTULA DE SOLICITUD DE PATENTE PROVISIONAL

Esta es una petición para presentar una SOLICITUD PROVISIONAL bajo la 37 CFR 1.53(b)(2).

NUMERO DE EXPEDIENTE	PP/2167-95	Signo (+) en esta casilla	+

INVENTOR(ES)/SOLICITANTE(S)

APELLIDO	NOMBRE	INICIAL MEDIA	RESIDENCIA (CUIDAD Y YA SEA ESTADO O PAIS EXTRANJERO)
Cantor	Mark		C/O The Case Manhattan Bank 140 East 45th Street, 11th floor New York, NY 10017-3162

TITULO DE LA INVENCIÓN (280 caracteres máximo)

MÉTODO PARA PROCESAR UBICACIÓN DE INTERNET DE PAGOS DE LIQUIDACIONES UTILIZANDO AJUSTE POR CONMUTADOR DE LA MÁQUINA PAGADORA AUTOMATIZADA

DIRECCION POSTAL

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, N.Y., 10036

ESTADO: NY No. DE ZONA POSTAL: 10036 PAIS U.S.A

PARTES INCLUIDAS DE LA SOLICITUD (verifique todas las que se apliquen)

☒ Especificación — No.de Páginas .....12.....

☐ Dibujos — No. de Hojas .....3.....

METODO DE PAGO

El comisionado esta autorizado por este medio a cobrar impuestos de presentación y acreditar al No. de cuenta del depósito : 15-0700 Nuestro cheque No. 84272 se incluye para cubrir los derechos de presentación de la Solicitud Provisional	Impuesto provisional de pesentación Cantidad $150.00

178

La invención fue hecha por un Agencia del Gobierno de los Estados Unidos o bajo un contrato con una agencia del Gobierno de los Estados Unidos.

☐ No.

Presentada Respetuosamente,

FIRMA (ILEGIBLE) **FECHA 05/3/99.**

Nombre mecanografiado o impreso: MICHAEL J. SCHEER

Registro No. 34,425

Reivindicamos:

1. Un método para efectuar pagos electrónicos para compras en serie hechas por un consumidor desde un comerciante, comprendiendo el método las etapas de:

recuperar una cantidad de compra y un identificador para una cuenta de comerciante desde una ubicación de Internet del comerciante;

formar un pedido de pago que incluye la cantidad de compra y el identificador de cuenta del comerciante;

transmitiendo el consumidor el pedido de pago a una institución financiera en la cual el consumidor mantiene una cuenta;

debitar la cuanta del consumidor;

generar un informe de pago que garantice que la cantidad de pago será acreditada a la cuenta del comerciante;

transmitir el informe de pago al comerciante; y

abonar a la cuenta del comerciante utilizando la infraestructura del sistema de Máquina Pagadora Automatizada (ATM).

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PA 247010

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 18, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***60/150,725***
FILING DATE: ***August 25, 1999***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

T. Wallace
T. WALLACE
Certifying Officer

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a **PROVISIONAL APPLICATION** under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-114	Type a plus sign (+) inside this box -->	+

INVENTOR(s)/APPLICANT(s)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
O'Leary	Denis		c/o Chase Manhattan Bank 140 East 45th Street 11th Floor, NY 10017

TITLE OF THE INVENTION (*280 characters max*)

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

CORRESPONDENCE ADDRESS

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, NY 10036

STATE	NY	ZIP CODE	10036	COUNTRY	U.S.A.

ENCLOSED APPLICATION PARTS (*check all that apply*)

- [X] Specification 23 Pages
- [X] Drawing(s) 6 Sheets
- [ ] Small Entity Statement
- [ ] Other (specify)

METHOD OF PAYMENT

Our check No. _____ is enclosed to cover the Provisional Application filing fee.

The Commissioner is hereby authorized to charge any additional or missing fee to Deposit Account Number: 15-0700

PROVISIONAL APPLICATION FILING FEE AMOUNT ($)	$150.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government:

- [ ] No.
- [ ] Yes, Agency and Government contract number are: _____

Respectfully submitted,

SIGNATURE Michael J. Scheer

Date 8/25/99

TYPED NAME Michael J. Scheer

REGISTRATION NO. 34,425

- [ ] Additional Inventors are being named on separately numbered sheets and attached hereto.

FORM\MASTERS\PROVAPP

25

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EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee (mail label # EL 010 251 224 US) in an envelope addressed to: Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231, on August 25, 1999:

Dorothy Jenkins

Name of Person Mailing Correspondence

Dorothy Jenkins

Signature

August 25, 1999

Date of Signature

9632*0357*09

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

RELATED APPLICATION

This application is based on and claims priority to U.S. Provisional Patent Application No. 60/132,305, filed May 3, 1999, the entire disclosure of which is hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to methods for processing electronic payments purchases made over the Internet and more particularly to a method by which a consumer pushes a payment to an Internet merchant.

BACKGROUND OF THE INVENTION

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Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line POS for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. Furthermore, ACH payments have to be received, deposited and cleared before the funds are available. In contrast to ACH transactions, credit and off-line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication).

Two significant drawbacks with some or all of the above models for Internet POS payments are that:

1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the potential merchants conducting business on the

Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 100, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

The at least one of the drawbacks described above equally applies to electronic bill payment. The first drawback, requiring a pre-existing relationship between the consumer and bill payee is not as great a concern because this relationship most likely already exists between the consumer and the payee (e.g., the telephone, cable or utility company for example). The second drawback which requires the consumer to provide the payee with his or her account and/or PIN still remains a concern with electronic bill payment. Although fraud is less of a problem with respect to bill payment, since the consumer presumably has regular dealings with the payee, some consumers still

view the provision of the payee with at least his/her account number a diminution in the consumer's privacy.

SUMMARY OF THE INVENTION

In the method of the present invention, a consumer uses its Internet software to browse the Internet for goods being offered by various Internet merchants. Once the customer finds an item its wishes to purchase, the consumer's Internet software extracts from the merchant's web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer then transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchant's account at the merchant's bank. If there is sufficient funds in the consumer's account, the consumer's bank will return a payment advice digitally over the Internet which guarantees the payment. This payment advice is then transmitted by the customer's Internet software to the merchant's Internet server. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. In an alternative embodiment, the payment advice is transmitted via the Internet directly from the consumer's bank to the merchant's Internet server.

Payment totals for each merchant are settled on a daily basis using Electronic Funds Transfer via the regional ATM network infrastructure with funds being moved from the consumer's account at its bank to the merchant's account at its bank.

By the method of the present invention, both of the significant disadvantages of the prior art have been overcome. First of all, the consumer is no longer providing its confidential financial information to strangers over the

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Internet. Rather, the consumer is dealing directly with its own trusted institution, the bank. Furthermore, no pre-existing relationship has to exist between the customer and the merchant. The only requirement is that the merchant recognize and honor the guaranteed payment from the consumer's bank.

The present invention significantly reduces the transactional cost as compared to the use of credit cards. The method also provides a reduction in fraud and credit losses, while the finality of the transaction virtually eliminates dispute and chargeback processing from the viewpoint of the financial institution.

The present invention is not limited to the case of a consumer making purchases from Internet merchants. The method has further, broader applicability by providing the ability for anyone with an account at a financial institution to transfer funds to anyone else who also has an account at the same or a different financial institution.

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BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the method of the present invention; and

Figure 3 depicts a second embodiment according to the method of the present invention.

Figure 4 illustrates a third embodiment of the method of the present invention.

Figure 5 illustrates additional details of the method of the present invention.

Figure 6 illustrates a specific example of the method of Figure. 4.

DETAILED DESCRIPTION OF THE INVENTION

In contrast to the credit card, on-line and off-line debit and other payment models existing today, one of the unique features of the method of the present invention is the flow of the payment instruction and the payment which follows. In the credit card, on-line and off-line debit models, a consumer provides the merchant with an instruction that authorizes the merchant to collect funds from the consumer's bank account. Depending on the system, this payment instruction results in a guaranteed customer payment in the case of an on-line debit rather than a lengthy wait for funds (such in the case of a check) or something in between in the case of an off-line debit and credit card. The difference between the prior art models and the model of the present invention can be described as the difference between a "pull" and a "push" model. In the conventional models of today, the merchant "pulls" the payment from the consumer's account, while in the present invention the customer "pushes" the payment to the merchant's account.

Figure 2 illustrates a first embodiment of the method of the present invention. Prior to conducting any on-line purchases using the method of the present invention, the consumer establishes an Internet payment account (IPA) 230 with its bank 220. Once this IPA account 230 has been established, the consumer funds this account from its demand deposit account (DDA) 240. The establishment of a separate IPA 230 is preferable from a consumer's point of view in order to provide a separate accounting and statement from its normal DDA account 240. Furthermore, the IPA account might not be interest bearing and the

consumer would accordingly only fund small amounts into this account in order to cover potential on-line purchases. In an alternative embodiment of the present invention, the consumer's payment request for credits and debits can be made directly against its DDA account 240. Furthermore, the IPA 230 can be funded from a consumer's Line of Credit or credit or debit card account held by the bank 220 or any other linked account from which the consumer can transfer funds.

The consumer uses Internet browsing software 200 in order to initiate a payment transaction. In one embodiment of the present invention, the Internet software is loaded on the consumer's personal computer 201. In alternative embodiments, the software can reside in a web enabled ATM machine 202, or remotely located and accessed via a telephone 203. The element Other 204 has been illustrated in order to convey that the present invention is not limited by any particular physical device and can employ any device which provides access to the Internet. For example a public Internet kiosk which provides access to the Internet can be used to practice the present invention.

In one embodiment of the present invention, the Internet software 200 is used in order to browse the Internet and visit the web sites of various merchants. As a consumer browses the web site of a particular merchant 210, all of the information viewed by the consumer is downloaded onto the consumer's computer or the device which is providing the Internet access. This downloaded information includes prices for the goods and services offered by the merchant as well as an identification of the merchant's bank 250 and the number of an account 260 which the merchant holds at its bank 250. If a consumer decides to go ahead with a particular purchase, the consumer's Internet software 200 extracts from the downloaded information the price for the item and the identification of the merchant's bank 250 and account number 260. A transaction identifier is

preferably assigned at this time either by the merchant's Internet server 210 or the consumer's software 200.

In another embodiment of the present invention, the entity who will eventually be receiving funds from the consumer can be an individual. For example, the consumer might be responding to a classified advertisement (electronic or traditional paper) or purchasing an item or a service through an electronic auction site such as eBay(TM). In either of these cases, the consumer obtains the payee's bank 250 identification and account number 260 in a variety of ways. In one method, the consumer obtains this information electronically from the service where it contacted the individual (e.g. through eBay(TM)). Alternatively, the consumer can obtain the necessary destination bank information through offline methods such as the traditional paper classified advertisement or through an Email which has been "pushed" to the consumer by the potential payee.

In an alternative bill paying embodiment, the consumer has all of the relevant bank and account information for each of the payees (e.g. telephone service provider) which the consumer regularly pays bill electronically. An electronic bill can be presented to the consumer either through E-mail or from an Internet site maintained by the payee or by a Consumer Service Provider for the payee. The bill can contain a button for paying the bill through the use of the present invention (i.e. through the ATM system). When the customer selects the button, a template is presented to the customer which has all of the bank and account information prefilled. The customer merely fills in the amount he/she wishes to pay. Upon completion, the user selects a transmit button in response to which the payment message is formatted with the supplied information and transmitted to the consumer's bank for processing. The same payment template

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can be used either included in an E-mail or from the payee's web site as described above.

In a further embodiment, the consumer has a personal relationship with the eventual payee and has been previously provided with the destination banking information by the eventual payee. For example, if a parent has a son or daughter away at college, the parent has knowledge of the child's bank 250 and account 260 and is able to transfer funds to the child's account 260 in a simple, quick and cost efficient manner by use of the present invention.

Returning to Fig. 2, with the bank 250 identification and account 260 information in hand, the consumer's Internet software 200 formats and transmits a message containing this information to its own bank 220. The message will contain at least the identification of the consumer's account 230, the destination bank 250, and the destination account 260. For example, this payment instruction from the consumer asks that fifty dollars be debited against its account #1234 and that credit be forwarded to merchant's account #5678 at the merchant's bank.

With respect to authentication, because the consumer is pushing the payment to merchants or other entities or individuals, rather than the merchants pulling payments from consumer accounts, the consumers do not need to authenticate themselves to the merchant. Rather, the consumers authenticate themselves to their own bank 220 which then executes the payment to the merchant's account. The consumer's bank 220 will require some form of authentication of the payment request from the consumer. This authentication can be in the form of a software certification, an encrypted PIN, or the mother's maiden name of the consumer. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment request.

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This method of the present invention is quite attractive to consumers because they can pay any individual or entity regardless of the existence of a pre-existing relationship with that individual or entity. The transaction can furthermore be conducted from anywhere there is access to the Internet. The IPA account 230 can be used and managed through the consumer's PC 201, a web enabled ATM 202, by phone 203 or by any other web enabled device 204. With respect to merchants, individuals or other entities which are paid by the method of the present invention, there are several advantages. This method opens up a universe of buyers/payors without the access or desire to use credit or debit cards online. A very low effort is required on the part of a merchant which only has to publish its bank 250 and IPA deposit only account 260 information on its web site. If a merchant has been using traditional credit card methods, the present invention provides the merchant with significant savings in credit card processing, fraud loss, and chargeback costs. The present invention also provides the ability to economically accept micropayments.

Returning again to Fig. 2, in fulfilling the payment request from the consumer, the bank 220 will initially verify that there are sufficient funds in the consumer's IPA account 230 to satisfy the payment request. If there are sufficient funds in the consumer's IPA account 230, the account is immediately debited or the funds held such that funds equal to the amount of the payment are no longer available in the customer's IPA account 230. The funds debited from the consumer's IPA account 230 are credited to the destination account 260 as described in more detail below. If insufficient funds exist in the customer's IPA account 230, the payment request is denied and the consumer's Internet software 200 is informed of the insufficient funds condition. In an alternative embodiment of the present invention, the consumer is provided with the ability to transfer

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funds from its DDA account 240 into the IPA account 230 such that sufficient funds are available to cover the payment request.

If sufficient funds exist in the IPA account 230 to process the payment request, the consumer's bank 220 generates a digital payment advice which is transferred back over the Internet to the consumer's Internet software 200. In a preferred embodiment, this payment advice is digitally signed by the consumer's bank 220, thus guaranteeing the payment. Once this payment has been digitally signed by the consumer's bank 220, all of the risk associated with this payment lies with the consumer's bank 220 and not with the merchant 210 or its bank 250 as with some of the models described above. For this reason, the model of the present invention is an attractive alternative to merchants conducting business on the Internet. Various forms of implementing the digital signature by the consumer's bank 220 are well known in the art.

Upon receipt of the payment advice from the consumer's bank 220, the consumer's Internet software 200 forwards this payment advice to the merchant's Internet server 210. Once the merchant has received the payment advice from the consumer's Internet software 220, the transaction can be completed by the shipment of the goods or provision of the service to the consumer.

The settlement process between the consumer's bank 220 and the merchant's bank 250 typically occurs once a day, at the end of the day, but may occur in real time or batched processed when the transactions reaches a dollar or absolute number limit. As described above, the consumer's IPA account 230 has been debited for the amount of the purchase. This debited amount now needs to be transferred to the merchant's bank 250 in order that a credit be applied to the merchant's account 260. In a preferred embodiment of the present invention, the merchant has established a deposit only IPA 260 in which funds can only be

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deposited and not withdrawn. This is a security feature which protects the merchant from various forms of electronic fraud. Alternatively, the destination account 260 could be another type of deposit only account or a DDA account in the case where the receiving party truly trusts the consumer (e.g. the parent/child relationship previously described).

In the present invention, the consumer's bank 220 accomplishes the payment settlement via the conventional ATM electronic Funds Transfer process. Using this well known process, the consumer's bank 220 designates the merchant's bank 250 and the specific account 260 to which the credit of the purchased amount should be applied. Furthermore, the consumer's bank can include in the ATM message the transaction ID previously described for tracking and auditing purposes by the merchant and the merchant's bank 250. This auditing information allows the merchant to match the merchant's payables to its receipts. This information can also be used in the reconciliation process with respect to the merchant's account.

Periodically, funds from the merchant's deposit only IPA account 260 are transferred (swept) by the merchant bank 250 into the merchant's conventional DDA account 270.

Figure 3 illustrates an alternative embodiment of the present invention. All of the initial steps with respect to the consumer browsing the merchant's web site and formulating the payment request which is forwarded to its bank 220 are the same as illustrated in Figure 2. The difference in the embodiment illustrated in Figure 3 as compared with the embodiment depicted in Figure 2 is that the payment advice from the consumer's bank 220 is forwarded directly to the merchant's Internet server 210. This payment advice will therefore come from a separate Internet Protocol (IP) address from the address that connects the consumer's Internet software 200 to the merchant's Internet server

210. This feature will provide additional confidence to the merchant that the advice has indeed originated from the consumer's bank and is not a fraudulently generate advice.

The push model of the present invention has significant advantages over the conventional methods used today. This method is extremely easy for online banking customers to adopt. The method guarantees payment to the merchant without any concerns about repudiation inherent in the use of a credit card. The present invention reduces fraud loses compared to offline debit, credit card or checks. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with its own financial institution.

Fig. 4 illustrates the broader embodiment of the present invention briefly described above. In this embodiment, a customer 1 (payor) of a financial institution is able to transfer funds to a customer 2 (payee) of a the same or different financial institution. This embodiment is particularly suitable for the bill payment example described above. Prior to the practice of the method illustrated in Fig. 4, both customer 1 (payor) and customer 2 (payee), must each have established an account and deposited funds into their respective financial institutions. In a preferred embodiment, these accounts are specific Internet Payment Accounts (IPA) I1 and I2, at the customers' respective banks B1 and B2 (Fig. 5). Here, customer 1 has deposited $1000 into IPA I1 and customer 2 has deposited $200 into IPA I2. As previously described, an IPA can be funded through any linked account such as the customer's DDA or credit account, or through another IPA. The customer does not need to have a DDA or credit account at a bank to set up an IPA, as these accounts could be funded by accounts at another bank or through cash. As shown in Fig. 5, however, both customer 1

and customer 2 have linked DDA accounts D1 and D2, respectively, to IPA I1 and IPA I2. Once this is done, the IPAs can be used for web shopping, pay anyone anywhere, and bill payment. Alternatively, as described above, the payments made according to the method of the present invention can be made directly from/to a DDA account.

Once customer 1 has set up its IPA I1, the customer 1 can request that payments be made (e.g. bills) through the IPA I1. With this payment system, customer 2, the payment recipient, can be a billing company, such as a telephone company. As previously described with respect to Fig. 3, in step 400, the payment can be requested by phone, ATM or PC. Customer 1 must give his/her bank, B1, the following information: the payment amount, customer 2's BIN and IPA#. In step 410, this information is used by bank B1 to create a transaction instruction filed under a transaction ID#, T1. Because customer 1 is directly contacting his/her own bank B1, no authorization is required. Customer 1 authenticates him/herself by inputting a pin number or other ID. In step 420, after authentication, customer 1's bank, B1, debits customer 1's IPA, I1, by the amount of the payment (e.g. $100 as illustrated in Fig. 4). In step 430, the transaction instruction representing the credit to customer 2 is transmitted to customer 2's bank B2 through the ATM network. The receiving bank B2 can send a confirmation message back to customer 1 through its bank B1 that the transaction was received by bank B2.

In step 440, upon its receipt by the bank B2, the transaction information T1 representing the credit to customer 2's account, is stored in a personal virtual lockbox. Alternatively, the credit is directly applied to customer 2's IPA I2. The concept of a personal virtual lockbox is borrowed from retail lockbox processing in which a bank collects the receivables for an entity and performs the financial processing on such receivables. The personal virtual

lockbox in the present invention operates similarly in that it stores receivables throughout the day for customer 2 which are then swept, in step 450, into the customer's IPA I2. In step 460 the actual credit is applied to customer 2's IPA I2.

Reference is now made to Fig. 6 which illustrates a further example of the present invention. Fig. 6 illustrates a specific application of the present invention in which a customer 1 desires to transfer funds to customer 2, where customer 2 is anyone that needs to be paid, such as one's gardener, or anyone who requires funds, such as a child at college. As with the example of Fig. 4, customer 1 and customer 2 preferably have established and deposited funds into internet payment accounts IPA I1 and IPA I2 at the customer's respective banks B1 and B2 (Fig. 5). Customer 1, for example the owner of real property, has deposited $1000 into IPA I1 and customer 2, for example a gardener, has deposited $200 into IPA I2.

Although not necessary, customer 1 and customer 2 have established DDA accounts D1, D2, respectively, at their banks B1, B2 to link with the IPA accounts.

At step 600, customer 1 requests that a payment be made, for example by phone, ATM, PC, etc. In this instance, customer 1 wishes to transfer $100 from his IPA account I1 in bank B1 to customer 2's IPA account I2 at bank B2. At step 610, customer 1 provides his payment account number, customer 2's BIN number and customer 2's IPA account number. This produces a transaction instruction for a particular transaction, here designated ID# 1, where the BIN number is designated B2 and the IPA number is designated I2. Customer 1 authenticates himself by inputting a pin number or other such ID number into the system.

At step 620, bank B1 debits customer 1's IPA I1 by $100, leaving IPA I1 with a balance of $900. At step 630, the transaction instruction is transmitted to bank B2 through the ATM switch network.

At step 640, the transaction instruction commanding a deposit into customer 2's IPA account I2 is stored in a personal virtual lockbox. As previously discussed, the credit to customer 2's IPA account I2 may alternatively be directly applied rather than utilizing the virtual lockbox. The credit of $100 is applied to customer 2's IPA I2 when accounts are swept in. At step 650, customer 2 actually receives the $100 credit to his account and is provided with a bill payment message indicating that the transaction was completed.

Those skilled in the art will appreciate that the above example applies equally well to the situation in which customer 1 would wish to transfer funds to, for example, a child at college, rather than providing funds in exchange for services.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

We claim:

1. A method for effectuating an electronic payment between a payor and a payee, the payor having a payor account at a payor bank and the payee having a payee account at a payee bank, the method comprising the steps of:

generating a payment request identifying the payee bank, the payee account and an amount of the payment;

transmitting the payment request to the payor bank;

debiting the payor account by the amount of the payment;

transmitting a transaction instruction representing a credit in the amount of the payment from the payor bank, through an Automated Teller Machine (ATM) system to the payee bank; and

crediting the payee account in the amount of the payment in response to the receipt of the transaction instruction.

2. The method as recited in claim 1, further comprising the step of retrieving payee information that identifies the payee bank and the payee account.

3. The method as recited in claim 2, wherein the retrieving step further comprises the step of retrieving the payee information from an Internet web site.

4. The method as recited in claim 3, wherein the retrieving step is automatic.

5. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request through the Internet.

6. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using a personal computer.

7. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using am Internet enabled ATM machine.

8. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request by telephone.

9. The method as recited in claim 1, further comprising the step of transmitting a guarantee of the payment from the payor bank to the payee.

10. The method as recited in claim 9, wherein the transmittal of the guarantee is directly to the payee.

11. The method as recited in claim 9, wherein the transmittal of the guarantee is from the payor bank to the payor to the payee.

12. The method as recited in claim 9, further comprising the step of the payor bank digitally signing the guarantee.

13. The method as recited in claim 1, wherein the payee account is a deposit only account.

14. The method as recited in claim 1, wherein the payee is a billing company, the payor is a customer of the billing company and the payment is in response to a bill from the billing company.

15. The method as recited in claim 14, further comprising the step of receiving the bill electronically.

16. The method as recited in claim 15, wherein bill is electronically received via E-mail.

17. The method as recited in claim 15, wherein bill is electronically received from an Internet site.

18. The method as recited in claim 14, further comprising the step of receiving a template containing at least information identifying the payee bank and payee account .

19. The method as recited in claim 18, further comprising the steps of:

inserting into the template the amount of the payment; and

generating the payment request in response to the information contained in the template .

20. A method for effectuating electronic payments for online purchases made by a consumer from a merchant, the method comprising the steps of:

retrieving from an Internet site of the merchant a purchase amount and merchant information identifying a merchant's financial institution and a merchant's account;

forming a payment request including the purchase amount and the merchant information;

transmitting the payment request to a financial institution at which the consumer maintains an account;

debiting the consumer's account by the purchase amount;

generating a payment instruction for crediting the merchant's account by the purchase amount

transmitting the payment instruction to the merchant's financial institution through an Automated Teller Machine (ATM); and

crediting the merchant's account by the purchase amount.

21. The method as recited in claim 20, wherein the retrieving step is automatic.

22. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request through the Internet.

23. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumers's financial institution is accomplished by using a personal computer.

24. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumer's financial institution is accomplished by using am Internet enabled ATM machine.

25. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request by telephone.

26. The method as recited in claim 20, further comprising the steps of:

generating a payment advice guaranteeing the payment amount will be credited to the merchant's account; and

transmitting the payment advice to the merchant.

27. The method as recited in claim 26, wherein the transmittal of the guarantee is directly to the merchant.

28. The method as recited in claim 27, wherein the transmittal of the guarantee is made using a different Internet Protocol (IP) address from the IP address used by the consumer to view the merchant's Internet site.

29. The method as recited in claim 26, wherein the transmittal of the guarantee is from the consumer's financial institution to the consumer to the merchant.

30. The method as recited in claim 26, further comprising the step of the payor bank digitally signing the guarantee.

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31. The method as recited in claim 20, wherein the merchant's account is a deposit only account.

32. The method as recited in claim 20, wherein the consumer's account is a demand deposit account.

33. The method as recited in claim 20, wherein the consumer's account is an account only used for making payments using the method of the present invention.

34. The method as recited in claim 20, wherein the consumer's account is funded from a different account maintained by the consumer.

35. The method as recited in claim 34, wherein the different account is a demand deposit account.

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ABSTRACT OF THE INVENTION

A method for effectuating electronic payments more specifically for making electronic payments for Internet purchases. Upon finding an item which it wishes to purchase on an Internet retailer's web site, a consumer using its Internet software extracts from the web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchants account at the merchants bank. The consumer's bank generates a payment advice that guarantees the payment. The payment advice is transmitted to the merchant. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. The customer's bank credits the merchant's account using the regional ATM network infrastructure.

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As a below named inventor, I hereby declare that: my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

the specification of which is attached hereto, unless the following box is checked:

☐ was filed on _____ as United States patent Application Number or PCT International patent application number _____ and was amended on _____ (if any).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate or United States provisional application(s) listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign or Provisional Application(s)

COUNTRY	APPLICATION NUMBER	DATE OF FILING *(day, month, year)*	PRIORITY CLAIMED UNDER 35 U.S.C. 119
U.S.A.	60/132,305	03 May 1999	YES XX NO ___
			YES ___ NO ___
			YES ___ NO ___

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

UNITED STATES APPLICATION NUMBER	DATE OF FILING *(day, month, year)*	STATUS *(patented, pending, abandoned)*

I hereby appoint customer no. 2352 OSTROLENK, FABER, GERB & SOFFEN, LLP, and the members of the firm, Samuel H. Weiner - Reg. No. 18,510; Jerome M. Berliner - Reg. No. 18,653; Robert C. Faber - Reg. No. 24,322; Edward A. Meilman - Reg. No. 24,735; Stanley H. Lieberstein - Reg. No. 22,400; Steven I. Weisburd - Reg. No. 27,409; Max Moskowitz - Reg. No. 30,576; Stephen A. Soffen - Reg. No. 31,063; James A. Finder - Reg. No. 30,173; William O. Gray, III - Reg. No. 30,944; Louis C. Dujmich - Reg. No. 30,625 and Douglas A. Miro - Reg. No. 31,643, as attorneys with full power of substitution and revocation to prosecute this application, to transact all business in the Patent & Trademark Office connected therewith and to receive all correspondence.

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☐ CONTINUED ON PAGE 2

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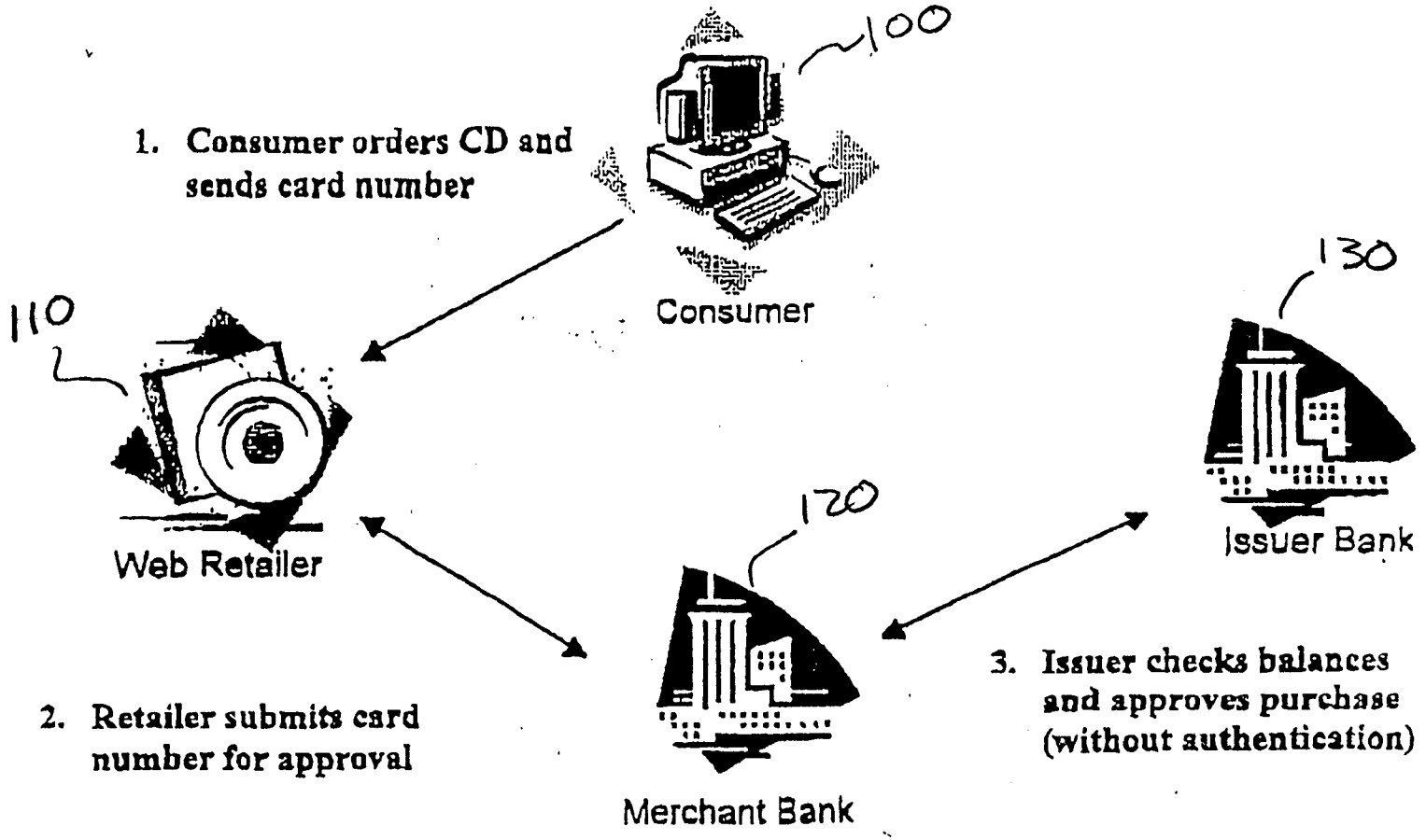


FIG. 1
PRIOR ART

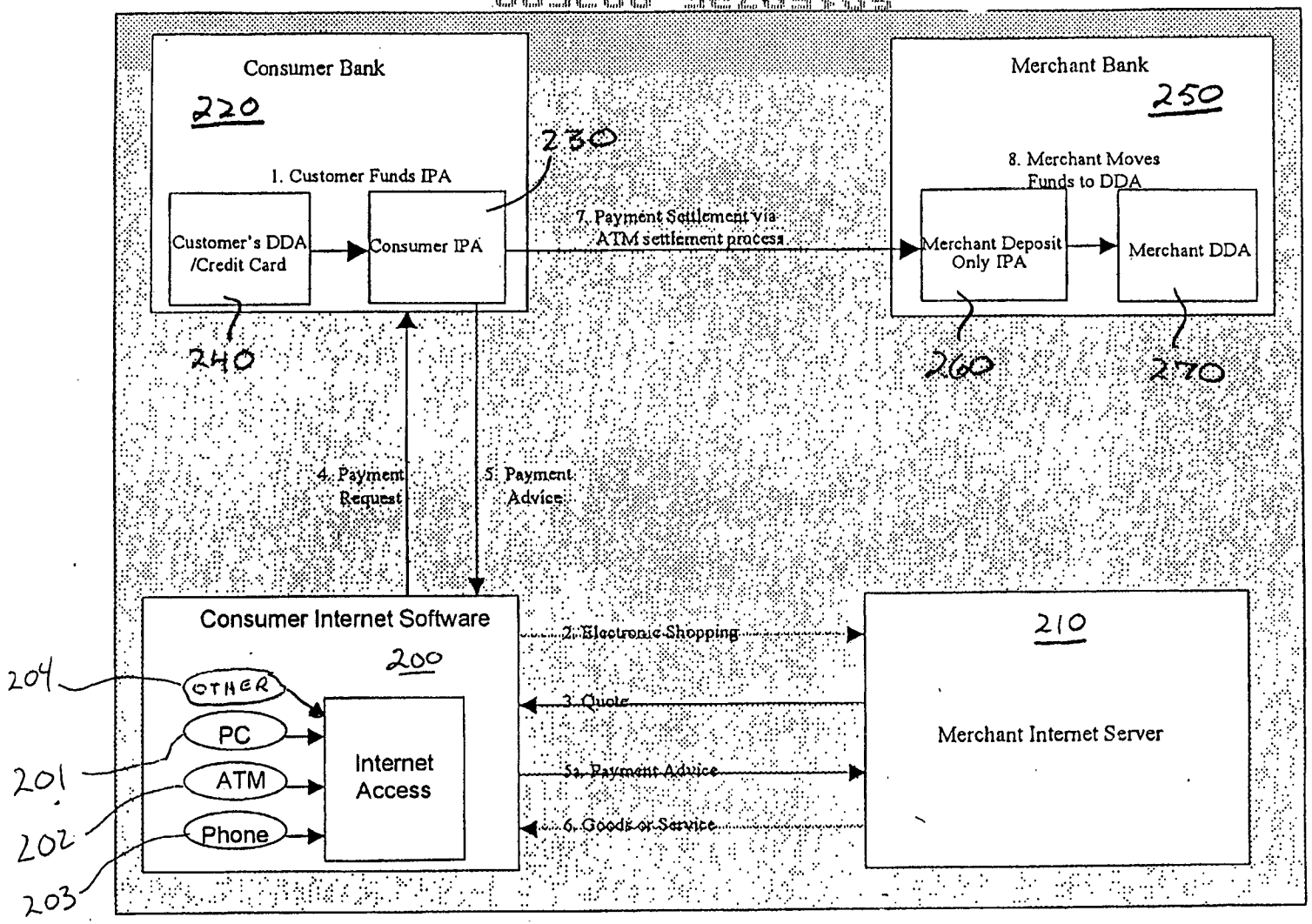

Consumer Bank
220
1. Customer Funds IPA
230
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
204
OTHER
PC
201
ATM
202
Phone
203
Internet Access
2. Electronic Shopping
3. Quote
5a. Payment Advice
6. Goods or Service
210
Merchant Internet Server

FIG. 2

207

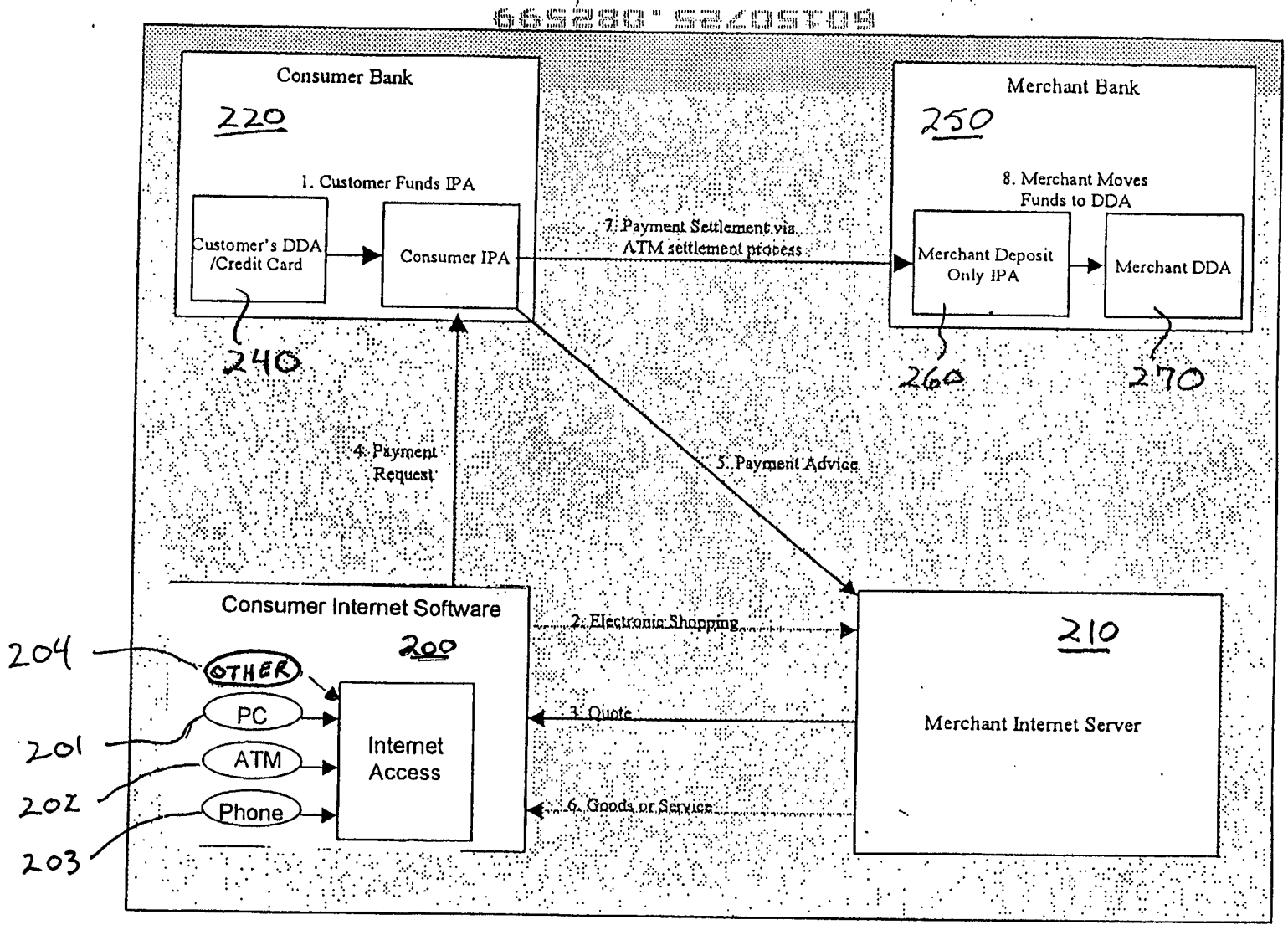

Consumer Bank
220
1. Customer Funds IPA
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
204
OTHER
PC
201
ATM
202
Phone
203
Internet Access
2. Electronic Shopping
3. Quote
6. Goods or Service
210
Merchant Internet Server

FIG. 3

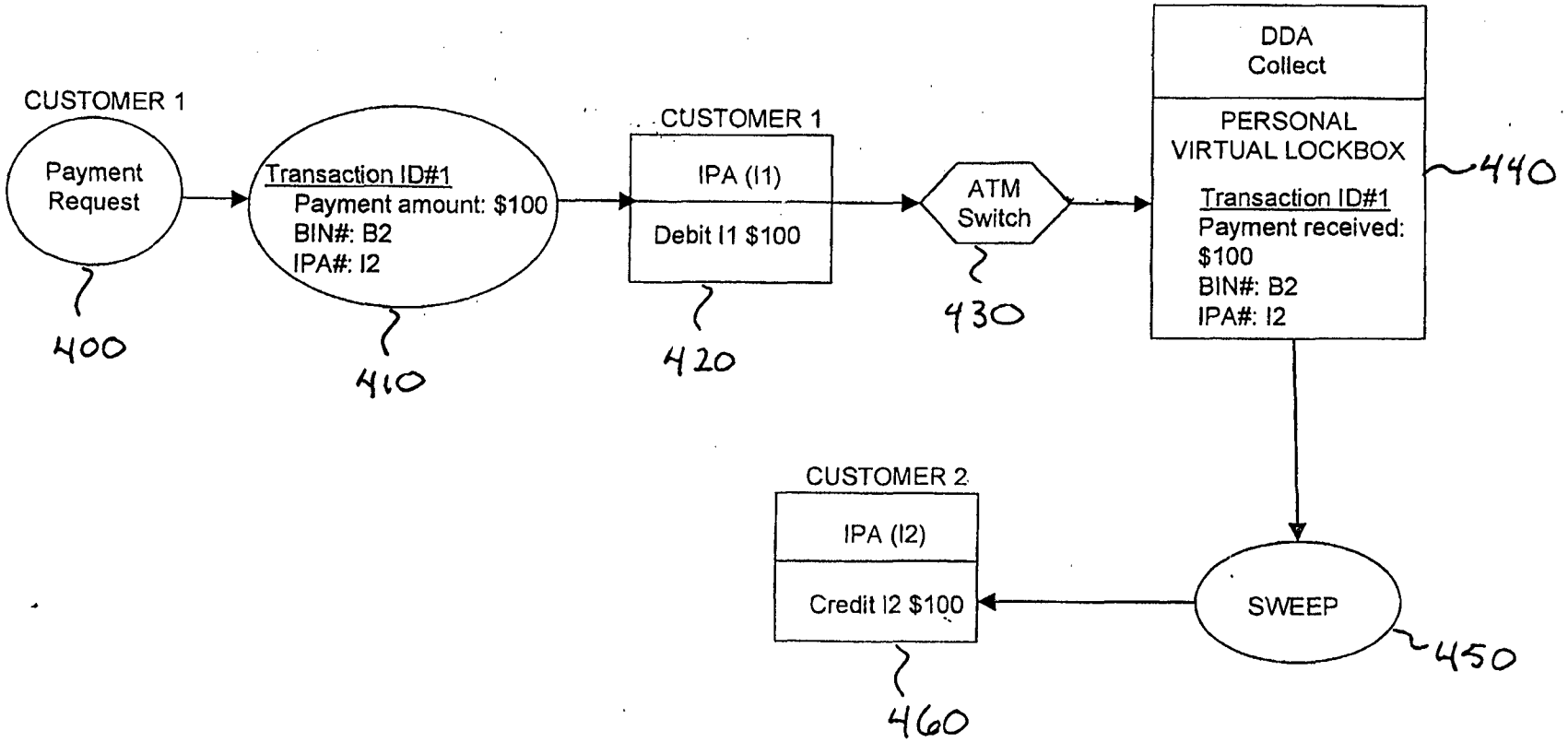

CUSTOMER 1
Payment Request
400
Transaction ID#1
Payment amount: $100
BIN#: B2
IPA#: I2
410
CUSTOMER 1
IPA (I1)
Debit I1 $100
420
ATM Switch
430
DDA Collect
PERSONAL VIRTUAL LOCKBOX
Transaction ID#1
Payment received: $100
BIN#: B2
IPA#: I2
440
CUSTOMER 2
IPA (I2)
Credit I2 $100
460
SWEEP
450

FIG. 4

400

6652890 "52605709

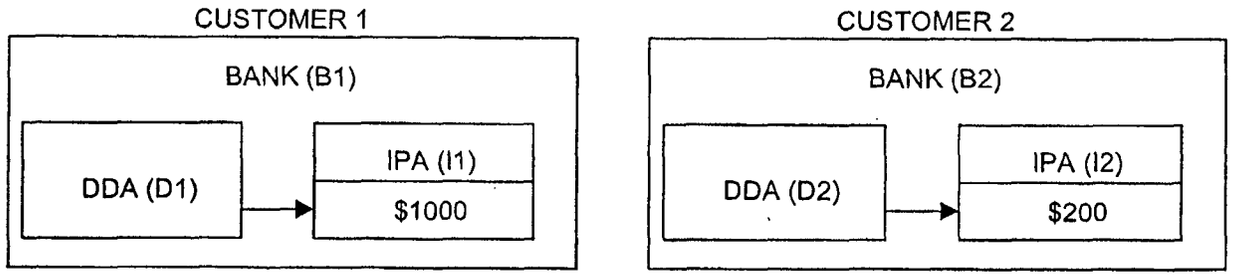
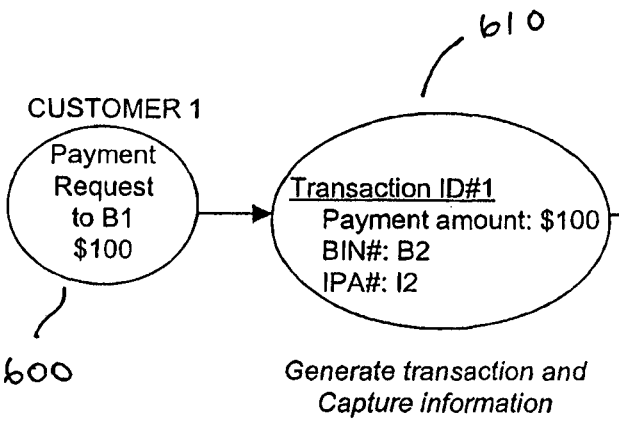


Fig. 5


610
CUSTOMER 1
Payment Request to B1 $100
600
Transaction ID#1
Payment amount: $100
BIN#: B2
IPA#: I2
Generate transaction and Capture information

280" 92/05/09

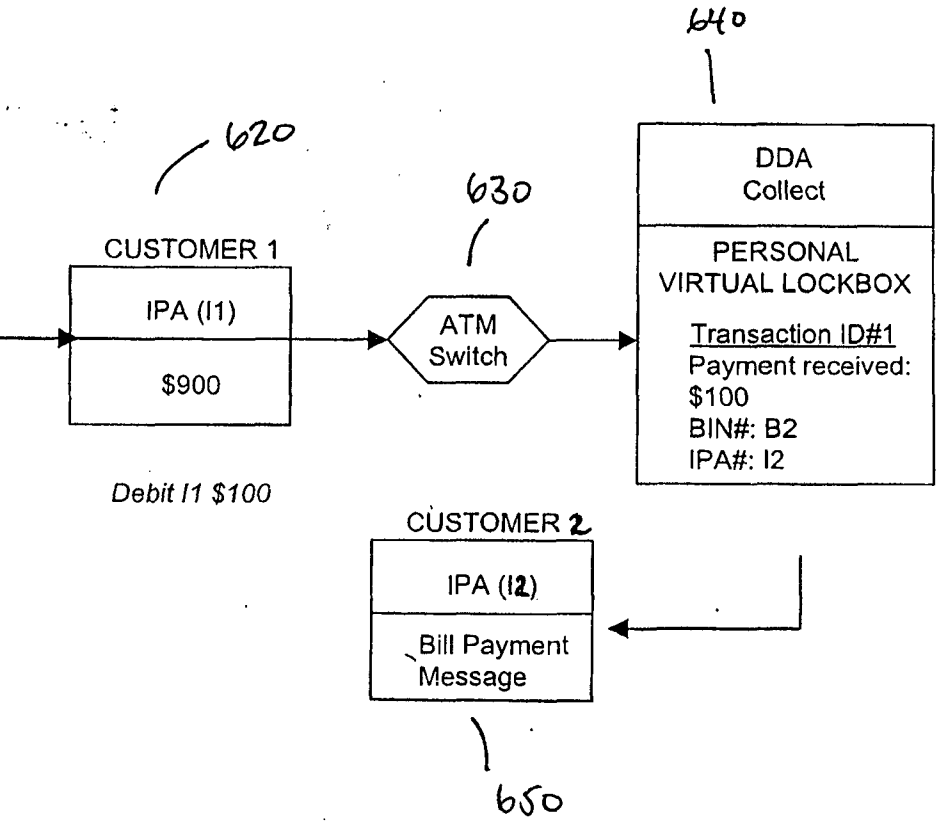


FIG. 6.

212

A COVERBIND® COVER 1-800-366-6060
1/4" Classic PTO 1583-3 for 31-60 sheets

24

LOS ESTADOS UNIDOS DE AMÉRICA

A TODOS AQUELLOS A QUIENES LA PRESENTE LLEGARE:

DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Patentes y Marcas de los Estados Unidos

Mayo 18, 2000.

LA PRESENTE ES PARA CERTIFICAR QUE LA ANEXA A ESTA ES UNA COPIA FIEL DE LOS REGISTROS DE LA OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS DE LOS DOCUMENTOS DE LA SOLICITUD DE PATENTE IDENTIFICADA MÁS ADELANTE QUE SATISFACEN LOS REQUISITOS PARA QUE SE OTORGUE UNA FECHA DE PRESENTACIÓN BAJO 35 USC 111.

SOLICITUD NÚMERO: 60/150,725.

FECHA DE PRESENTACIÓN: Agosto 25, 1999.

Por la autoridad del

COMISIONADO DE PATENTES Y MARCAS

T. WALLACE.

Funcionario Certificador

SELLO EN RELIEVE

215

CARÁTULA DE SOLICITUD DE PATENTE PROVISIONAL

Esta es una petición para presentar una SOLICITUD PROVISIONAL bajo la 37 CFR 1.53(b)(2).

NUMERO DE EXPEDIENTE	PP/2167-114	Signo (+) en esta casilla	+

INVENTOR(ES)/SOLICITANTE(S)

APELLIDO	NOMBRE	INICIAL MEDIA	RESIDENCIA (CUIDAD Y YA SEA ESTADO O PAIS EXTRANJERO)
O'Leary	Denis		C/O The Case Manhattan Bank 140 East 45th Street, 11th floor New York, NY 10017

TITULO DE LA INVENCIÓN (280 caracteres máximo)

MÉTODO PARA USAR AJUSTE POR COMPUTADOR DE MÁQUINA PAGADORA AUTOMATIZADA PARA PROCESAR TRANSACCIONES

DIRECCION POSTAL

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, N.Y., 10036

ESTADO: NY No. DE ZONA POSTAL: 10036 PAIS U.S.A

PARTES INCLUIDAS DE LA SOLICITUD (verifique todas las que se apliquen)

☒ Especificación No.de Páginas .....23.....

☒ Dibujos No. de Hojas .....6.....

METODO DE PAGO

El comisionado esta autorizado por este medio a cobrar impuestos de presentación y acreditar al No. de cuenta del depósito : 15-0700 Nuestro cheque No. incluye para cubrir los derechos de presentación de la Solicitud Provisional	Impuesto provisional de pesentación Cantidad $150.00

216

La invención fue hecha por un Agencia del Gobierno de los Estados Unidos o bajo un contrato con una agencia del Gobierno de los Estados Unidos.

☐ **No.**

Presentada Respetuosamente,

FIRMA (ILEGIBLE) **FECHA 8/25/99.**

Nombre mecanografiado o impreso: MICHAEL J. SCHEER

Registro No. 34,425

217

CERTIFICADO DE CORREO EXPRESO

Certifico por este medio que esta correspondencia está siendo depositada con el servicio postal de los Estados Unidos como Oficina de Correo Expreso al destinatario (rótulo de correo # EL 010 251 224 US) en un sobre dirigido a: Comisionado Asistente de Patentes y Marcas, Washington, D.C., 20231, el 25 de Agosto de 1999:

Dorothy Jenkins

_____

Nombre de la persona que envía el Correo

FIRMA (ILEGIBLE)

Agosto 25, 1999

_____

Fecha de Firmado

28

Reivindicamos:

1. Un método para efectuar un pago electrónico entre un pagador y un beneficiario, teniendo el pagador una cuenta de pagador en un banco de pagador y teniendo el beneficiario una cuenta de beneficiario en un banco de beneficiario, comprendiendo el método las etapas de:

   generar una petición de pago que identifique el banco del beneficiario, la cuenta del beneficiario y un monto del pago;

   transmitir la petición del pago al banco pagador;

   debitar la cuenta del pagador por el monto del pago;

   transmitir una instrucción de transacción que represente un crédito en el monto del pago del banco pagador, a través de un sistema de Máquina Pagadora Automatizada (ATM) al banco del beneficiario; y

   abonar la cuenta del beneficiario en la cantidad del pago en respuesta al recibo de la instrucción de transacción.

2. El método definido en la reivindicación 1, que comprende adicionalmente la etapa de recuperar información del beneficiario que identifique el banco del beneficiario y la cuenta del beneficiario.

3. El método según se definió en la reivindicación 2, en donde la etapa de recuperar comprende adicionalmente la etapa de recuperar la información del beneficiario desde un emplazamiento de red de Internet.

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4. El método según se definió en la reivindicación 3,en donde la etapa de recuperación es automática.

5. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la petición de pago al banco del pagador comprende adicionalmente la etapa de transmitir y a petición de pago a través del Internet.

6. El método según se definió en la reivindicación 5, en donde la etapa de transmitir la petición de pago al banco del pagador se lleva a cabo utilizando un computador personal.

7. El método según se definió en la reivindicación 5, en donde la etapa de transmitir la petición de pago al banco del pagador se lleva a cabo utilizando una máquina ATM habilitada por Internet.

8. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la petición de pago al banco del pagador comprende adicionalmente la etapa de transmitir la petición de pago por teléfono.

9. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de transmitir una garantía del pago del banco del pagador al beneficiario.

10. El método según se definió en la reivindicación 9, en donde la transmisión de la garantía es directamente al beneficiario.

11. El método según se definió en la reivindicación 9, en donde la transmisión de la garantía es desde el banco del beneficiario al pagador al beneficiario.

12. El método según se definió en la reivindicación 9, que comprende adicionalmente la etapa del banco del pagador que firma digitalmente la garantía.

13. El método según se definió en la reivindicación 1, en donde la cuenta del beneficiario es una cuenta sólo de depósito.

14. El método según se definió en la reivindicación 1, en donde el beneficiario es una compañía de facturación, el pagador es un cliente de la compañía de facturación y el pago es en respuesta a una factura proveniente de la compañía de facturación.

15. El método según se definió en la reivindicación 14, que comprende adicionalmente la etapa de recibir la factura electrónicamente.

16. El método según se definió en la reivindicación 15, en donde la factura es recibida electrónicamente por correo electrónico.

17. El método según se definió en la reivindicación 15, en donde la factura es recibida electrónicamente desde un emplazamiento de Internet.

18. El método según se definió en la reivindicación 14, que comprende adicionalmente la etapa de recibir una plantilla que contiene por lo menos información que identifica el banco del beneficiario y la cuenta del beneficiario.

19. El método según se definió en la reivindicación 18, que comprende adicionalmente las etapas de:
insertar dentro de la plantilla el monto del pago; y
generar la petición de pago en respuesta a la información contenida en la plantilla.

20. Un método para efectuar pagos electrónicos por compras en serie hechas por un consumidor desde un comerciante, comprendiendo el método las etapas de:
recuperar desde un emplazamiento de Internet del comerciante un monto de compra, e información del comerciante que identifique una institución financiera del comerciante y una cuenta del comerciante;
formar una petición de pago que incluya el monto de compra y la información del comerciante;

transmitir la petición de pago a una institución financiera en la cual el consumidor mantiene una cuenta;

debitar la cuenta del consumidor por el monto del compra;

generar una instrucción de pago para abonar a la cuenta del comerciante por el monto de compra;

transmitir la instrucción de pago a la institución financiera del comerciante a través de una Máquina Pagadora Automatizada (ATM); y

abonar a la cuenta del comerciante por el monto de compra.

21. El método según se definió en la reivindicación 20, en donde la etapa de recuperar es automática.

22. El método según se definió en la reivindicación 20, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor comprende adicionalmente la etapa de transmitir la petición de pago a través del Internet.

23. El método según se definió en la reivindicación 22, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor es llevada a cabo utilizando un computador personal.

24. El método según se definió en la reivindicación 22, en donde la etapa de transmitir la petición de pago a la institución financiera del

consumidor es llevada a cabo utilizando una máquina ATM capacitada por Internet.

25. El método según se definió en la reivindicación 20, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor comprende adicionalmente la etapa de transmitir la petición de pago por teléfono.

26. El método según se definió en la reivindicación 20, que comprende adicionalmente las etapas de:
generar un aviso de pago que garantiza que el monto de pago será acreditado a la cuenta del comerciante; y
transmitir el aviso de pago al comerciante.

27. El método según se definió en la reivindicación 26, en donde la transmisión de la garantía es directamente al comerciante.

28. El método según se definió en la reivindicación 27, en donde la transmisión de la garantía se hace utilizando una dirección de Protocolo de Internet (PI) diferente de la dirección PI utilizada por el consumidor para observar el emplazamiento de Internet del comerciante.

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29. El método según se definió en la reivindicación 26, en donde la transmisión de la garantía es desde la institución financiera del consumidor al consumidor al comerciante.

30. El método según se definió en la reivindicación 26, que comprende adicionalmente la etapa de firmar digitalmente el banco del pagador la garantía.

31. El método según se definió en la reivindicación 20, en donde la cuenta del comerciante es una cuenta de depósito solamente.

32. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es una cuenta de demanda de depósito.

33. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es una cuenta usada solamente para hacer pagos utilizando el método se la presente invención.

34. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es financiada desde una cuenta diferente mantenida por el consumidor.

35. El método según se definió en la reivindicación 34, en donde la cuenta diferente es una cuenta de depósito a la vista.

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PA 264849

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

June 20, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***60/161,300***
FILING DATE: ***October 22, 1999***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

J. Phillips

H. PHILLIPS
Certifying Officer

10/22/99
JC672 U.S. PTO

A/PROV

68

JC553 U.S. PTO
60/161300
10/28/99

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-134	Type a plus sign (+) inside this box -->	+

INVENTOR(s)/APPLICANT(s)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
O' Leary	Denis		c/o Chase Manhattan Bank 140 East 45th Street 11th Floor New York, NY 10017

TITLE OF THE INVENTION (*280 characters max*)

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

CORRESPONDENCE ADDRESS

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, NY 10036

STATE	NY	ZIP CODE	10036	COUNTRY	USA

ENCLOSED APPLICATION PARTS (*check all that apply*)

[X] Specification 40 Pages [X] Drawing(s) 12 Sheets [ ] Small Entity Statement

[ ] Other (specify)

METHOD OF PAYMENT

Our check No. 88906 is enclosed to cover the Provisional Application filing fee

The Commissioner is hereby authorized to charge any additional or missing fee to Deposit Account Number. 15-0700

PROVISIONAL APPLICATION FILING FEE AMOUNT ($) $ 150.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government

[ ] No [ ] Yes, Agency and Government contract number are _____

Respectfully submitted,

SIGNATURE Michael J. Scheer

Date 10/26/99

TYPED NAME Michael J. Scheer

REGISTRATION NO. 34,425

[ ] Additional Inventors are being named on separately numbered sheets and attached hereto

00425755 1

Specification Included

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

RELATED APPLICATION

This application is based on and claims priority to U.S. Provisional Patent Applications Nos. 60/132,305, filed May 3, 1999, and 60/150,725, filed August 25, 1999, the entire disclosures of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to methods for processing electronic payments purchases made over the Internet and more particularly to a method by which a consumer pushes a payment to an Internet merchant.

BACKGROUND OF THE INVENTION

Presently, there are several methods by which a consumer can electronically pay for purchases made on the Internet, such as credit cards, off-line debit cards, online debit cards, digital cash, and smart cards. Each of these methods has its own advantages and disadvantages. An off-line debit card uses the traditional credit card system for clearing the payment but no Personal Identification Number (PIN) is required. The use of an on-line debit card requires that the consumer supply his or her PIN, and the amount of the purchase is debited from the consumer's account instantaneously. One

disadvantage with both the on and off-line debit cards, from a consumer's point of view, is the inability to reverse or repudiate the transaction. In contrast, by use of a credit card, the consumer at a later date can reverse the transaction (e.g., if the purchased goods are never shipped to the consumer).

It is predicted that credit cards will be the dominant on-line point of sale (POS) payment choice for at least the next five years. While new Internet payment mechanisms have been rapidly emerging, consumers and merchants have been happily conducting a growing volume of commerce using basic credit card functionality. None of the emerging efforts to date have gotten more than a toehold in the market place and momentum continues to build in favor of credit cards.

Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line POS for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. Furthermore, ACH payments have to be received, deposited and cleared before the funds are available. In contrast to ACH transactions, credit and off-line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication).

Two significant drawbacks with some or all of the above models for Internet POS payments are that:

1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the potential merchants conducting business on the Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 100, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

The at least one of the drawbacks described above equally applies to electronic bill payment. The first drawback, requiring a pre-existing

relationship between the consumer and bill payee is not as great a concern because this relationship most likely already exists between the consumer and the payee (e.g., the telephone, cable or utility company for example). The second drawback which requires the consumer to provide the payee with his or her account and/or PIN still remains a concern with electronic bill payment. Although fraud is less of a problem with respect to bill payment, since the consumer presumably has regular dealings with the payee, some consumers still view the provision of the payee with at least his/her account number a diminution in the consumer's privacy.

SUMMARY OF THE INVENTION

In the method of the present invention, a consumer uses its Internet software to browse the Internet for goods being offered by various Internet merchants. Once the customer finds an item its wishes to purchase, the consumer's Internet software extracts from the merchant's web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer then transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchant's account at the merchant's bank. If there is sufficient funds in the consumer's account, the consumer's bank will return a payment advice digitally over the Internet which guarantees the payment. This payment advice is then transmitted by the customer's Internet software to the merchant's Internet server. With guaranteed funding, the merchant can immediately deliver the

goods of services to the consumer. In an alternative embodiment, the payment advice is transmitted via the Internet directly from the consumer's bank to the merchant's Internet server.

Payment totals for each merchant are settled on a daily basis using Electronic Funds Transfer via the regional ATM network infrastructure with funds being moved from the consumer's account at its bank to the merchant's account at its bank.

By the method of the present invention, both of the significant disadvantages of the prior art have been overcome. First of all, the consumer is no longer providing its confidential financial information to strangers over the Internet. Rather, the consumer is dealing directly with its own trusted institution, the bank. Furthermore, no pre-existing relationship has to exist between the customer and the merchant. The only requirement is that the merchant recognize and honor the guaranteed payment from the consumer's bank.

The present invention significantly reduces the transactional cost as compared to the use of credit cards. The method also provides a reduction in fraud and credit losses, while the finality of the transaction virtually eliminates dispute and chargeback processing from the viewpoint of the financial institution.

The present invention is not limited to the case of a consumer making purchases from Internet merchants. The method has further, broader applicability by providing the ability for anyone with an account at a financial institution to transfer funds to anyone else who also has an account at the same or a different financial institution.

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BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the method of the present invention;

Figure 3 depicts a second embodiment according to the method of the present invention;

Figure 4 illustrates a third embodiment of the method of the present invention;

Figure 5 illustrates additional details of the method of the present invention;

Figure 6 illustrates a specific example of the method of Figure. 4;

Figure 7 illustrates a specific example of the method of the present invention;

Figure 8 illustrates a specific example of the method of the present invention;

Figure 9 illustrates a specific example of the method of the present invention;

Figure 10 illustrates a specific example of the method of the present invention;

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access. This downloaded information includes prices for the goods and services offered by the merchant as well as an identification of the merchant's bank 250 and the number of an account 260 which the merchant holds at its bank 250. If a consumer decides to go ahead with a particular purchase, the consumer's Internet software 200 extracts from the downloaded information the price for the item and the identification of the merchant's bank 250 and account number 260. A transaction identificr is preferably assigned at this time either by the merchant's Internet server 210 or the consumer's software 200.

In another embodiment of the present invention, the entity who will eventually be receiving funds from the consumer can be an individual. For example, the consumer might be responding to a classified advertisement (electronic or traditional paper) or purchasing an item or a service through an electronic auction site such as eBay(TM). In either of these cases, the consumer obtains the payee's bank 250 identification and account number 260 in a variety of ways. In one method, the consumer obtains this information electronically from the service where it contacted the individual (e.g. through eBay(TM)). Alternatively, the consumer can obtain the necessary destination bank information through offline methods such as the traditional paper classified advertisement or through an Email which has been "pushed" to the consumer by the potential payee.

In an alternative bill paying embodiment, the consumer has all of the relevant bank and account information for each of the payees (e.g. telephone service provider) which the consumer regularly pays bill electronically. An electronic bill can be presented to the consumer either

through E-mail or from an Internet site maintaincd by the payee or by a Consumer Service Provider for the payee. The bill can contain a button for paying the bill through the use of the present invention (i.e. through the ATM system). When the customer selccts the button, a template is presented to the customer which has all of the bank and account information prefilled. The customer merely fills in the amount he/she wishes to pay. Upon completion, the user selects a transmit button in response to which the payment message is formatted with the supplied information and transmitted to the consumer's bank for processing. The same payment template can be used either included in an E-mail or from the payee's web sitc as described above.

In a further embodiment, the consumer has a pcrsonal relationship with the eventual payee and has been previously provided with the destination banking information by the evcntual payee. For example, if a parent has a son or daughter away at college, the parent has knowledge of the child's bank 250 and account 260 and is able to transfer funds to the child's account 260 in a simple, quick and cost efficient manner by use of the present invention.

Returning to Fig. 2, with the bank 250 identification and account 260 information in hand, the consumer's Internet software 200 formats and transmits a message containing this information to its own bank 220. The message will contain at least the identification of the consumer's account 230, the destination bank 250, and the destination account 260. For example, this payment instruction from the consumer asks that fifty dollars be debited against its account #1234 and that credit be forwarded to merchant's account #5678 at the merchant's bank.

With respect to authentication, because the consumer is pushing the payment to merchants or other entities or individuals, rather than the merchants pulling paymcnts from consumer accounts, the consumers do not need to authenticate themselves to the merchant. Rather, the consumers authenticate themselves to their own bank 220 which then executes the payment to the merchant's account. The consumer's bank 220 will require some form of authentication of the payment request from the consumer. This authentication can be in the form of a software certification, an encrypted PIN, or the mother's maiden name of the consumer. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment request.

This method of the present invention is quite attractive to consumers because they can pay any individual or entity regardless of the existence of a pre-existing relationship with that individual or entity. The transaction can furthermore be conducted from anywhere there is access to the Internet. The IPA account 230 can be used and managed through the consumer's PC 201, a web enabled ATM 202, by phone 203 or by any other web enabled device 204. With respect to merchants, individuals or other entities which are paid by the method of the present invention, there are several advantages. This mcthod opens up a universe of buyers/payors without the access or desire to use credit or debit cards online. A very low effort is required on the part of a merchant which only has to publish its bank 250 and IPA deposit only account 260 information on its web site. If a merchant has been using traditional credit card methods, the present invention provides the merchant with significant savings in credit card proccssing, fraud

loss, and chargeback costs. The present invention also provides the ability to economically accept micropayments.

Returning again to Fig. 2, in fulfilling the payment request from the consumer, the bank 220 will initially verify that there are sufficient funds in the consumer's IPA account 230 to satisfy the payment request. If there are sufficient funds in the consumer's IPA account 230, the account is immediately debited or the funds held such that funds equal to the amount of the payment are no longer available in the customer's IPA account 230. The funds debited from the consumer's IPA account 230 are credited to the destination account 260 as described in more detail below. If insufficient funds exist in the customer's IPA account 230, the payment request is denied and the consumer's Internet software 200 is informed of the insufficient funds condition. In an alternative embodiment of the present invention, the consumer is provided with the ability to transfer funds from its DDA account 240 into the IPA account 230 such that sufficient funds are available to cover the payment request.

If sufficient funds exist in the IPA account 230 to process the payment request, the consumer's bank 220 generates a digital payment advice which is transferred back over the Internet to the consumer's Internet software 200. In a preferred embodiment, this payment advice is digitally signed by the consumer's bank 220, thus guaranteeing the payment. Once this payment has been digitally signed by the consumer's bank 220, all of the risk associated with this payment lies with the consumer's bank 220 and not with the merchant 210 or its bank 250 as with some of the models described above. For this reason, the model of the present invention is an attractive alternative to

merchants conducting business on the Internet. Various forms of implementing the digital signature by the consumer's bank 220 are well known in the art.

Upon receipt of the payment advice from the consumer's bank 220, the consumer's Internet software 200 forwards this payment advice to the merchant's Internet server 210. Once the merchant has received the payment advice from the consumer's Internet software 220, the transaction can be completed by the shipment of the goods or provision of the service to the consumer.

The settlement process between the consumer's bank 220 and the merchant's bank 250 typically occurs once a day, at the end of the day, but may occur in real time or batched processed when the transactions reaches a dollar or absolute number limit. As described above, the consumer's IPA account 230 has been debited for the amount of the purchase. This debited amount now needs to be transferred to the merchant's bank 250 in order that a credit be applied to the merchant's account 260. In a preferred embodiment of the present invention, the merchant has established a deposit only IPA 260 in which funds can only be deposited and not withdrawn. This is a security feature which protects the merchant from various forms of electronic fraud. Alternatively, the destination account 260 could be another type of deposit only account or a DDA account in the case where the receiving party truly trusts the consumer (e.g. the parent/child relationship previously described).

In the present invention, the consumer's bank 220 accomplishes the payment settlement via the conventional ATM electronic Funds Transfer process. Using this well known process, the consumer's bank 220 designates

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the merchant's bank 250 and the specific account 260 to which the credit of the purchased amount should be applied. Furthermore, the consumer's bank can include in the ATM message the transaction ID previously described for tracking and auditing purposes by the merchant and the merchant's bank 250. This auditing information allows the merchant to match the merchant's payables to its receipts. This information can also be used in the reconciliation process with respect to the merchant's account.

Periodically, funds from the merchant's deposit only IPA account 260 are transferred (swept) by the merchant bank 250 into the merchant's conventional DDA account 270.

Figure 3 illustrates an alternative embodiment of the present invention. All of the initial steps with respect to the consumer browsing the merchant's web site and formulating the payment request which is forwarded to its bank 220 are the same as illustrated in Figure 2. The difference in the embodiment illustrated in Figure 3 as compared with the embodiment depicted in Figure 2 is that the payment advice from the consumer's bank 220 is forwarded directly to the merchant's Internet server 210. This payment advice will therefore come from a separate Internet Protocol (IP) address from the address that connects the consumer's Internet software 200 to the merchant's Internet server 210. This feature will provide additional confidence to the merchant that the advice has indeed originated from the consumer's bank and is not a fraudulently generate advice.

The push model of the present invention has significant advantages over the conventional methods used today. This method is extremely easy for online banking customers to adopt. The method guarantees

payment to the merchant without any concerns about repudiation inherent in the use of a credit card. The present invention reduces fraud loses compared to offline debit, credit card or checks. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with its own financial institution.

Fig. 4 illustrates the broader embodiment of the present invention briefly described above. In this embodiment, a customer 1 (payor) of a financial institution is able to transfer funds to a customer 2 (payee) of a the same or different financial institution. This embodiment is particularly suitable for the bill payment example described above. Prior to the practice of the method illustrated in Fig. 4, both customer 1 (payor) and customer 2 (payee), must each have established an account and deposited funds into their respective financial institutions. In a preferred embodiment, these accounts are specific Internet Payment Accounts (IPA) I1 and I2, at the customers' respective banks B1 and B2 (Fig. 5). Here, customer 1 has deposited $1000 into IPA I1 and customer 2 has deposited $200 into IPA I2. As previously described, an IPA can be funded through any linked account such as the customer's DDA or credit account, or through another IPA. The customer does not need to have a DDA or credit account at a bank to set up an IPA, as these accounts could be funded by accounts at another bank or through cash. As shown in Fig. 5, however, both customer 1 and customer 2 have linked DDA accounts D1 and D2, respectively, to IPA I1 and IPA I2. Once this is done, the IPAs can be used for web shopping, pay anyone anywhere, and bill payment. Alternatively, as described above, the payments made according to

the method of the present invention can be made directly from/to a DDA account.

Once customer 1 has set up its IPA I1, the customer 1 can request that payments be made (e.g. bills) through the IPA I1. With this payment system, customer 2, the payment recipient, can be a billing company, such as a telephone company. As previously described with respect to Fig. 3, in step 400, the payment can be requested by phone, ATM or PC. Customer 1 must give his/her bank, B1, the following information: the payment amount, customer 2's BIN and IPA#. In step 410, this information is used by bank B1 to create a transaction instruction filed under a transaction ID#, T1. Because customer 1 is directly contacting his/her own bank B1, no authorization is required. Customer 1 authenticates him/herself by inputting a pin number or other ID. In step 420, after authentication, customer 1's bank, B1, debits customer 1's IPA, I1, by the amount of the payment (e.g. $100 as illustrated in Fig. 4). In step 430, the transaction instruction representing the credit to customer 2 is transmitted to customer 2's bank B2 through the ATM network. The receiving bank B2 can send a confirmation message back to customer 1 through its bank B1 that the transaction was received by bank B2.

In step 440, upon its receipt by the bank B2, the transaction information T1 representing the credit to customer 2's account, is stored in a personal virtual lockbox. Alternatively, the credit is directly applied to customer 2's IPA I2. The concept of a personal virtual lockbox is borrowed from retail lockbox processing in which a bank collects the receivables for an entity and performs the financial processing on such receivables. The personal virtual lockbox in the present invention operates similarly in that it stores

receivables throughout the day for customer 2 which are then swept, in step 450, into the customer's IPA I2. In step 460 the actual credit is applied to customer 2's IPA I2.

Reference is now made to Fig. 6 which illustrates a further example of the present invention. Fig. 6 illustrates a specific application of the present invention in which a customer 1 desires to transfer funds to customer 2, where customer 2 is anyone that needs to be paid, such as one's gardener, or anyone who requires funds, such as a child at college. As with the example of Fig. 4, customer 1 and customer 2 preferably have established and deposited funds into Internet payment accounts IPA I1 and IPA I2 at the customer's respective banks B1 and B2 (Fig. 5). Customer 1, for example the owner of real property, has deposited $1000 into IPA I1 and customer 2, for example a gardener, has deposited $200 into IPA I2.

Although not necessary, customer 1 and customer 2 have established DDA accounts D1, D2, respectively, at their banks B1, B2 to link with the IPA accounts.

At step 600, customer 1 requests that a payment be made, for example by phone, ATM, PC, etc. In this instance, customer 1 wishes to transfer $100 from his IPA account I1 in bank B1 to customer 2's IPA account I2 at bank B2. At step 610, customer 1 provides his payment account number, customer 2's BIN number and customer 2's IPA account number. This produces a transaction instruction for a particular transaction, here designated ID# 1, where the BIN number is designated B2 and the IPA number is designated I2. Customer 1 authenticates himself by inputting a pin number or other such ID number into the system.

At step 620, bank B1 debits customer 1's IPA I1 by $100, leaving IPA I1 with a balance of $900. At step 630, the transaction instruction is transmitted to bank B2 through the ATM switch network.

At step 640, the transaction instruction commanding a deposit into customer 2's IPA account I2 is stored in a personal virtual lockbox. As previously discussed, the credit to customer 2's IPA account I2 may alternatively be directly applied rather than utilizing the virtual lockbox. The credit of $100 is applied to customer 2's IPA I2 when accounts are swept in. At step 650, customer 2 actually receives the $100 credit to his account and is provided with a bill payment message indicating that the transaction was completed.

Those skilled in the art will appreciate that the above example applies equally well to the situation in which customer 1 would wish to transfer funds to, for example, a child at college, rather than providing funds in exchange for services.

The following sections will describe five different specific embodiments of the present invention with respect to Figures 7-12.

Product Definition:

The Global Internet Pay Anyone account is a safe, sound, and secure electronic payment system which will allow consumers and merchants to shop on the web, pay bills, and pay anyone virtually anywhere. Through the use of Internet technology married to an existing payment infrastructure, consumers and merchants alike will find that Internet Pay Anyone (IPA) accounts are both efficient and convenient, while offering the highest levels of

security. The following document illustrates how five different transaction types would flow through this payment system.

IPA accounts are available to both consumers and merchants. By furnishing both payors and payees with IPA's, banks can validate the identities of both parties. In addition, all payment messages are 128 bit SSL encrypted. This coupling of authentication and encryption provide consumers and merchants with the comfort that their transactions are secure and private. The IPA enriches the consumer e-commerce experience by eliminating the tedious process of filling out lengthy payment and shipping fields- this is done automatically. Merchants will also benefit from the above features, as research indicates that most e-commerce purchases are abandoned at the point of sale due to consumers' unwillingness to complete lengthy forms or provide personal credit card numbers. Once a transaction is authorized on the web, it is then passed through the existing ATM infrastructure.

Product Components:

The enabling functionality resides in two pieces: a consumer "Wallet" and a merchant "Virtual Private Lockbox" (VPL). The Wallet and VPL is software that, when installed, augments any Internet browser with e-commerce capability. The software sits in front of (and links to) an IPA account. This account is a special purpose DDA with limited functionality.

The Wallet: Consumers access their IPA's via their Wallet, which is accessible through their Internet browser. Consumers use this Wallet to fund their account, shop on the web, pay bills, pay anyone else with an IPA, receive funds from any IPA owner, and check their recent Wallet activity. The Wallet sits in front of their IPA account, which is a limited purpose DDA

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account that sends transactions over the ATM network. The Wallet provides consumers with a safe, secure, and convenient way to conduct financial transactions over the web.

The VPL: Merchants access their IPA's via their VPL which, like a Wallet, is accessible through any Internet browser. The VPL securely receives all payments via the ATM network. Once a day, these funds can be automatically swept from their IPA to their DDA account. In addition, the VPL supplies merchants with value-added services. The VPL provides online, real-time transaction reports, which reconcile accounts receivable/purchase records against payment records. All transactions are archived and retrievable via the VPL's payment search engine, so that merchants will have powerful data mining and customer service tools at their fingertips. These features make the VPL the perfect vehicle for order fulfillment and record keeping.

With respect to Figure 7, Initiating/Funding the Wallet - The Internet Pay Anyone (IPA) account is accessed through a virtual Wallet. This Wallet can be accessed via the Internet, ATM, telephone, Kiosk, and even a personal digital assistant. The primary method for funding the Wallet is through the Wallet owner's DDA, credit, and savings accounts, which can be linked to the Wallet through Online Banking. Alternative funding options are by an externally sponsored credit card, by check or money order, or through the ACH network.

Step #	Description
	Installing the Wallet
1	User signs on to Online Banking via PC. Site is 128-bit SSL encrypted, and user is authenticated

2	Once logged on, user selects Wallet option from main menu. There are two options: · Install a web Wallet · Move funds to/from Wallet
3	User selects "Install a web Wallet". Screen instructs user that web Wallet will now be installed as a button on the browser toolbar. Once installed, user is prompted to provide some background information that will assist in web purchases and payments: examples include: shipping name, shipping address, and other optional information.
	Funding the Wallet
4	The primary method for initial and future funding of Wallet is performed through a link between the Wallet and Online Banking. For initial funding of the Wallet, the user will select "move funds to/from Wallet" from online banking menu. User selects "move funds to Wallet", and provides the following:
	· Source of funds- checking, credit card, savings, etc. · $ amount · funding date · one time or repeat Upon completion of above, the Wallet is funded (subsequent funding of the Wallet can be done via both the Wallet or directly within Online Banking).
5	In addition to funding via online banking, instructions can be given for funding via phone, ATM, kiosk, or PDA.
	Funding the Wallet from an external credit or debit card, or DDA account
6	For accounts not linked to online banking, user selects "fund with a non-[my bank] account". User selects the financial merchant

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	(AMEX, VISA, etc.) and keys in account number, expiration (if applic.), and $ amount, and a funding request is transmitted to merchant acquirer (this account info will be stored for future funding requests)
7	Merchant Acquirer (such as Chase Merchant Svcs) authorizes the transaction and passes the request through the EFT switch.
8	Financial merchant receives funding request via EFT switch, and verifies card number, expiration, and credit limit.
9	Funding is authorized by financial merchant
10	Funding is received by Wallet, which is an IPA (Internet Pay Anyone) account.
11	Funds are settled once a day between credit card's bank and user's bank's IPA
Note:	Other alternatives sources for Wallet funding are check, money order, or ACH

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Model #1

With respect to Figure 8, Web Shopping: The Wallet and the Virtual Private Lockbox (VPL) significantly enhances the consumer and merchant experience when used for web shopping. A Wallet icon will be located on the browser toolbar. When shopping the web, the user simply launches the Wallet. Once the consumer commits to purchasing an item, the merchant's site will recognize that the transaction is from a Wallet owner. The Wallet will instantly fill out all required fields. In addition, rather than the merchant "pulling" in the consumers account information, the Wallet "pushes" guaranteed funds to the merchant's Virtual Private Lockbox, without the merchant obtaining the consumers account info. This transaction is virtually

instantaneous, provides privacy, security, and convenience to the consumer -- and guarantees funding, provides reconcilement, and supplies archival records to the merchant.

Step #	Description
1	User launches browser and selects Wallet icon from browser toolbar.
2	User keys in IPA (Internet Pay Anyone) # and password. The user is authenticated and has access to their Wallet.
3	User is then presented with balance information and can select from several options:
4	User selects "Shop on the Web". Browser could be initially directed to ChaseShop.com for a list of chase-approved merchants, however user is free to navigate to the merchant web site of their choice.
5	User selects item for purchase from merchant web site. Since web Wallet is active, merchant recognizes user as a Wallet customer, and purchase fields (shipping address, name, etc.) are auto-populated from Wallet.
6	Merchant site generates and transmits to user a bill payment message providing the following data: · Merchant BIN · Merchant Account # · Transaction ID · $ Amount
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "purchase item".

8	Wallet verifies balance and passes transaction to IPA account; payment conformation sent to the Merchant's website.
9	Bill payment message is passed from user's bank's IPA to the merchant's DDA via the ATM switch.
10	The bill payment record is transmitted from the merchant's DDA to the merchant's Virtual Private Lockbox (VPL).
11	Upon receipt of these guaranteed funds, merchant's payment record can be reconciled against the merchant's purchase records. With VPL, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
12	Merchant ships goods
13	Funds are settled once a day between user's bank's DDA and merchant's bank's DDA.
14	Funds can be swept to merchant's cash concentration bank.
15	DDA could also be swept to a host account

Model #2

With respect to Figure 9, Pay Anyone: The Wallet provides the user with tremendous flexibility. Anyone with a Wallet can send funds to anyone else with a Wallet. This funds transfer is instantaneous and at no cost to the consumer, and is conducted in a secure environment.

Step #	Description
1	User launches browser and selects Wallet icon from browser toolbar.
2	User keys in IPA (Internet Pay Anyone) # and password. The user

	is authenticated and has access to their Wallet.
3	User is then presented with balance information and can select from several options:
4	User selects "Pay Anyone". User is given several options in the Pay Anyone menu screen: · Manually key in payee's IPA # · Select a prior payee from a drop down menu · Add/Remove/Edit Payee from drop down menu User keys in (or selects) payee's IPA #, $ amount, and a description (optional). This payee IPA will be linked to either a Wallet or a VPL, depending on whether the payee is a consumer or a merchant.
5	Payment info. is transmitted to payee's Wallet for IPA # verification as well authorization to pay.
6	Wallet confirms that information is correct and transmits a payment message with the following data: · Payee BIN · Payee Account # · Transaction ID · $ Amount · description
7	User reviews payment message and selects "OK to Pay".
8	Wallet sends transaction to IPA account; an expected payment record is also transmitted to the payee's Wallet or VPL.
9	Payment message is passed from user's bank's IPA to the payee's DDA via the ATM switch.

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10	The payment record is transmitted from the payee's DDA to the payee's IPA/Wallet
11	Upon receipt of these guaranteed funds, payee's payment record is reconciled against the expected record.
12	Payee now has immediate use of funds. These funds can be used for web shopping, bill payment, pay anyone, or withdrawal via an ATM. If the Payee Wallet or VPL owner does not have access to a PC, they can still utilize their funds through conventional banking methods (by visiting a branch, through the phone, or at any store that carries a credit or debit card reader, using their IPA # and password).
13	Funds are settled once a day between user's bank's DDA and payee's bank's DDA.

Model #3A

With respect to Figure 10, Bill Payment-Direct: There are three different bill payment methods described in this document. The first method is the direct model. In this model a biller establishes an e-billing capability on its own web site. Once enrolled in the service, the customer will receive an e-mail notification that a bill is available for payment at the biller's web site. The customer will launch the Wallet from the browser and then access the biller's web site. A payment will then be transmitted from the Wallet to the biller's Virtual Private Lockbox. As in the other models, the transaction is secure, protects the customer's privacy, and provides the biller with guaranteed funding, reconcilement, and archival records.

Step #	Description
	Establishing e-billing relationship
1	Merchant advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service at biller's web site. After enrollment, user will receive monthly email notification when bills are available.
	Using the Wallet
3	User launches browser and selects Wallet icon from browser toolbar. User keys in IPA # and password. The user is authenticated and has access to their Wallet.
4	User is then presented with balance information and can select from several options:
	User selects "Pay Bills". User is given several options in the Pay Bills menu screen: · Pay Bills · Edit Billing information User selects "pay bills" and navigates to biller's web site (Wallet will already contain user's billing info)
5	Since web Wallet is active, biller's website recognizes user as a Wallet customer. In addition, biller's website verifies that customer has an established e-billing relationship.
6	Biller site generates and transmits to user a bill payment message providing the following data: · Biller's BIN

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	· Biller's Account # · Transaction ID · $ Amount
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".
8	Wallet verifies balance and passes transaction to IPA account; payment conformation sent to the Biller's website.
9	Bill payment message is passed from user's bank's IPA to the biller's DDA via the ATM switch.
10	The bill payment record is transmitted from the biller's DDA to the biller's VPL (virtual private lockbox).
11	Upon receipt of these guaranteed funds, biller's payment record is reconciled against the biller's accounts receivable files. With VPL, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
12	Funds are settled once a day between user's bank's DDA and biller's bank's DDA.
13	Funds can be swept to biller's cash concentration bank.

Model #3B

With respect to Figure 11, Bill Payment- Service Provider Consolidation: The second bill payment method is similar to the first, however in this model a central service provider consolidates e-bills from different billers, so that the customer has a single web site for reviewing bills and

making payments. The service provider can be seamlessly outfitted with archival capability, so that customers can review their bill payment history. The Wallet provides the consumer with privacy, security and convenience. The Virtual Private Lockbox provides Merchants receiving payments through this web site guaranteed funding, reconcilement and archival records.

Step #	Description
	Establishing e-billing relationship
1	Customer Service Provider (CSP) advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service at CSP's web site, and selects which bills it wishes to receive. After enrollment, user will receive monthly email notification when bills are available.
	Using the Wallet
3	User launches browser and selects Wallet icon from browser toolbar. User keys in IPA (Internet Pay Anyone) # and password. The user is authenticated and has access to their Wallet.
4	User is then presented with balance information and can select from several options:
	User selects "Pay Bills". User is given several options in the Pay Bills menu screen: · Pay Bills · Edit Billing information · Review Billing History User selects "pay bills" and navigates to CSP's
5	Since web Wallet is active, CSP's website recognizes user as a Wallet customer. In addition, CSP's website verifies that customer has an established e-billing relationship.

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6	User selects which bills to pay, and keys in $ amount. CSP site generates and transmits to user a bill payment message providing:
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".
8	Wallet verifies balance and passes transaction to IPA account; bill payment expected record is transmitted to the CSP's website.
9	Bill payment message is passed from user's bank's IPA to the CSP's DDA via the ATM switch.
10	The bill payment record is transmitted from the CSP's DDA to the CSP's VPL (virtual private lockbox).
11	Upon receipt of these guaranteed funds, CSP's payment record is reconciled against the CSP's accounts receivable file. With VPL, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
12	Funds are settled once a day between user's bank's DDA and billers' bank's DDA.
13	Funds can be swept to biller's cash concentration bank.
14	Note: Multiple record keeping models can be supported. The billers can push billing info. directly to the CSP's web site, or alternatively, bills can be channeled to the CSP via Spectrum.
15	Note: CSP can be outfitted with an archive to store transaction history as well as a customer service unit to resolve transaction inquiries.

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Model #3C

With respect to Figure 12, Bill Payment- Customer Consolidation: In the third bill payment method, the e-bills are delivered directly to the customer in the form of an e-mail. Each e-bill contains a hotlink, which directs the customer to the biller's web site. When the customer activates the Wallet, the web site recognizes the Wallet customer and initiates a payment message. The customer can then push the payment to the biller in the same manner that a payment is pushed in the web model, pay anyone model, and two other bill models. As in the two previous models, the merchant receives the guaranteed funding, reconcilement, and archival records benefits of the Virtual Private Lockbox product.

Step #	Description
	Establishing e-billing relationship
1	Biller advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service by clicking on "sign me up!" hotlink in email, which launches browser and auto-directs user to biller's web site. After enrollment, user will receive bills directly in their email box.
	Using the Wallet
3	User logs on to email and receives an e-bill. User clicks on payment hotlink in email, which launches browser and auto-directs user to billers web site. User selects Wallet icon from browser toolbar. User keys in IPA (Internet Pay Anyone) # and password. The user is authenticated and has access to their Wallet.
4	Since web Wallet is active, biller's website recognizes user as a

	Wallet customer. In addition, biller's website verifies that customer has an established e-billing relationship.
5	User keys in $ amount to pay. Biller's site generates and transmits to user a bill payment message providing the following data: · Biller's BIN · Biller's Account # · Transaction ID · $ Amount
6	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".
7	Wallet verifies balance and passes transaction to IPA account; a bill payment expected record is transmitted to the Biller's website
8	Bill payment message is passed from user's bank's IPA to the biller's DDA via the ATM switch.
9	The bill payment record is transmitted from the biller's DDA to the biller's VPL (virtual private lockbox).
10	Upon receipt of these guaranteed funds, biller's payment record is reconciled against the biller's accounts receivable file. With VPL, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
11	Funds are settled once a day between user's bank's DDA and billers' bank's DDA.
12	Funds can be swept to biller's cash concentration bank.

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Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

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We claim:

1. A method for effectuating an electronic payment between a payor and a payee, the payor having a payor account at a payor bank and the payee having a payee account at a payee bank, the method comprising the steps of:

generating a payment request identifying the payee bank, the payee account and an amount of the payment;

transmitting the payment request to the payor bank;

debiting the payor account by the amount of the payment;

transmitting a transaction instruction representing a credit in the amount of the payment from the payor bank, through an Automated Teller Machine (ATM) system to the payee bank; and

crediting the payee account in the amount of the payment in response to the receipt of the transaction instruction.

2. The method as recited in claim 1, further comprising the step of retrieving payee information that identifies the payee bank and the payee account.

3. The method as recited in claim 2, wherein the retrieving step further comprises the step of retrieving the payee information from an Internet web site.

4. The method as recited in claim 3, wherein the retrieving step is automatic.

5. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request through the Internet.

6. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using a personal computer.

7. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using am Internet enabled ATM machine.

8. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request by telephone.

9. The method as recited in claim 1, further comprising the step of transmitting a guarantee of the payment from the payor bank to the payee.

10. The method as recited in claim 9, wherein the transmittal of the guarantee is directly to the payee.

11. The method as recited in claim 9, wherein the transmittal of the guarantee is from the payor bank to the payor to the payee.

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12. The method as recited in claim 9, further comprising the step of the payor bank digitally signing the guarantee.

13. The method as recited in claim 1, wherein the payee account is a deposit only account.

14. The method as recited in claim 1, wherein the payee is a billing company, the payor is a customer of the billing company and the payment is in response to a bill from the billing company.

15. The method as recited in claim 14, further comprising the step of receiving the bill electronically.

16. The method as recited in claim 15, wherein bill is electronically received via E-mail.

17. The method as recited in claim 15, wherein bill is electronically received from an Internet site.

18. The method as recited in claim 14, further comprising the step of receiving a template containing at least information identifying the payee bank and payee account .

19. The method as recited in claim 18, further comprising the steps of: inserting into the template the amount of the payment; and

Express Mail Label No. EV 326 067 309

generating the payment request in response to the information contained in the template .

20. A method for effectuating electronic payments for online purchases made by a consumer from a merchant, the method comprising the steps of:

retrieving from an Internet site of the merchant a purchase amount and merchant information identifying a merchant's financial institution and a merchant's account;

forming a payment request including the purchase amount and the merchant information;

transmitting the payment request to a financial institution at which the consumer maintains an account;

debiting the consumer's account by the purchase amount;

generating a payment instruction for crediting the merchant's account by the purchase amount

transmitting the payment instruction to the merchant's financial institution through an Automated Teller Machine (ATM); and

crediting the merchant's account by the purchase amount.

21. The method as recited in claim 20, wherein the retrieving step is automatic.

22. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request through the Internet.

Golden Source

23. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumers's financial institution is accomplished by using a personal computer.

24. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumer's financial institution is accomplished by using am Internet enabled ATM machine.

25. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request by telephone.

26. The method as recited in claim 20, further comprising the steps of:

generating a payment advice guaranteeing the payment amount will be credited to the merchant's account; and

transmitting the payment advice to the merchant.

27. The method as recited in claim 26, wherein the transmittal of the guarantee is directly to the merchant.

28. The method as recited in claim 27, wherein the transmittal of the guarantee is made using a different Internet Protocol (IP) address from the IP address used by the consumer to view the merchant's Internet site.

29. The method as recited in claim 26, wherein the transmittal of the guarantee is from the consumer's financial institution to the consumer to the merchant.

30. The method as recited in claim 26, further comprising the step of the payor bank digitally signing the guarantee.

31. The method as recited in claim 20, wherein the merchant's account is a deposit only account.

32. The method as recited in claim 20, wherein the consumer's account is a demand deposit account.

33. The method as recited in claim 20, wherein the consumer's account is an account only used for making payments using the method of the present invention.

34. The method as recited in claim 20, wherein the consumer's account is funded from a different account maintained by the consumer.

35. The method as recited in claim 34, wherein the different account is a demand deposit account.

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ABSTRACT OF THE INVENTION

A method for effectuating electronic payments more specifically for making electronic payments for Internet purchases. Upon finding an item which it wishes to purchase on an Internet retailer's web site, a consumer using its Internet software extracts from the web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchants account at the merchants bank. The consumer's bank generates a payment advice that guarantees the payment. The payment advice is transmitted to the merchant. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. The customer's bank credits the merchant's account using the regional ATM network infrastructure.

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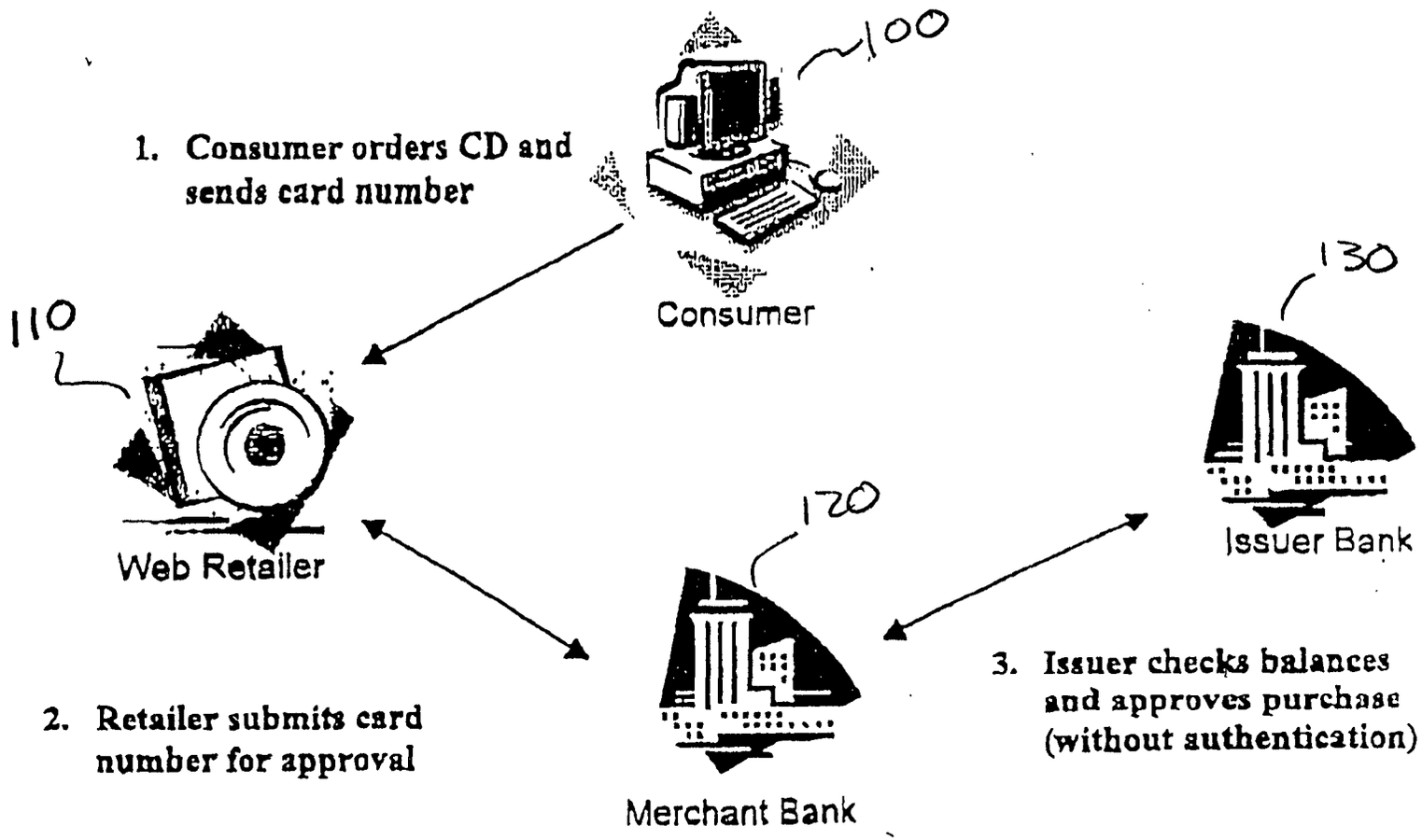


FIG. 1
PRIOR ART

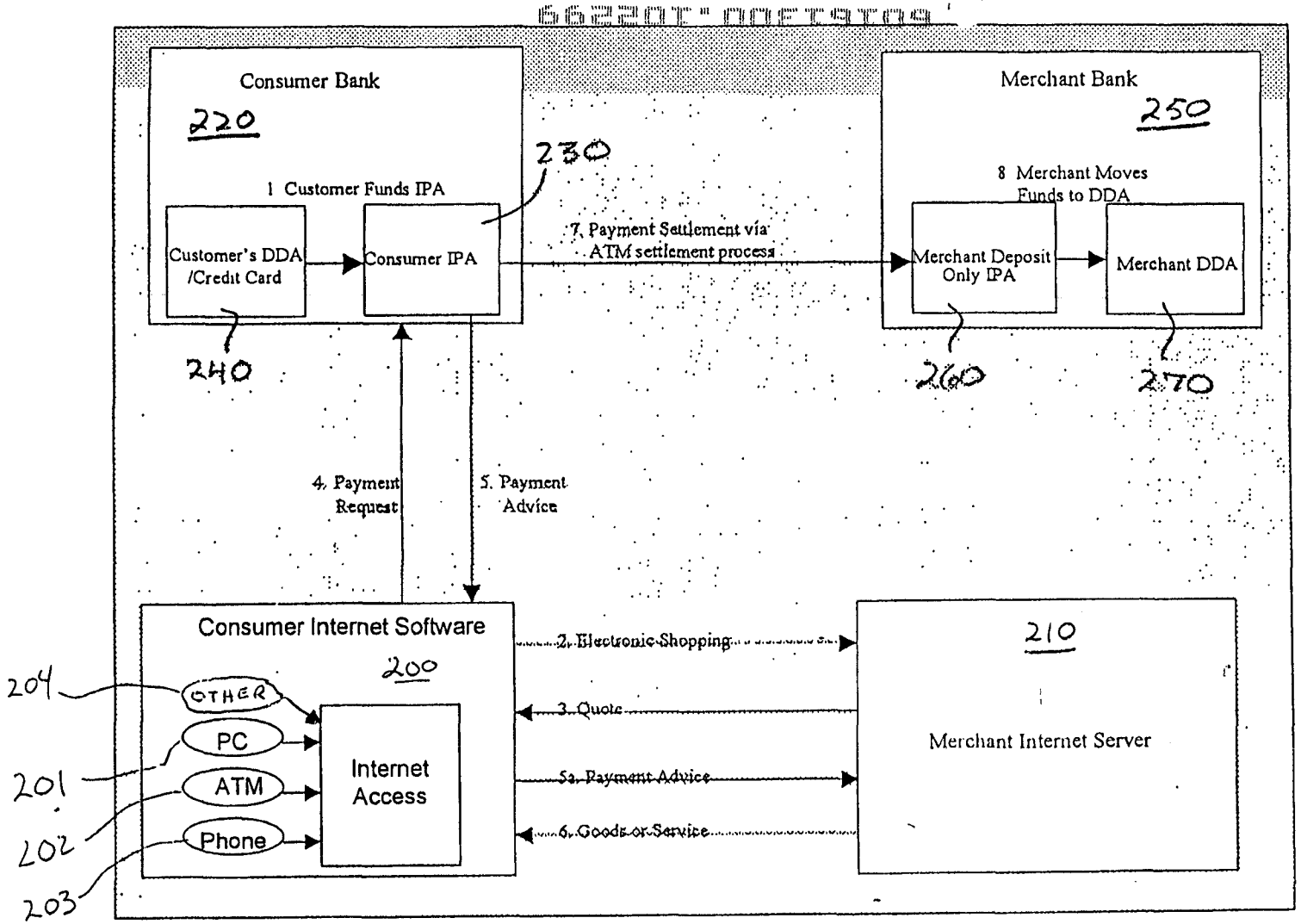

Consumer Bank
220
1 Customer Funds IPA
230
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8 Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
204
OTHER
PC
201
ATM
202
Phone
203
Internet Access
2. Electronic Shopping
3. Quote
5a. Payment Advice
6. Goods or Service
210
Merchant Internet Server

FIG. 2

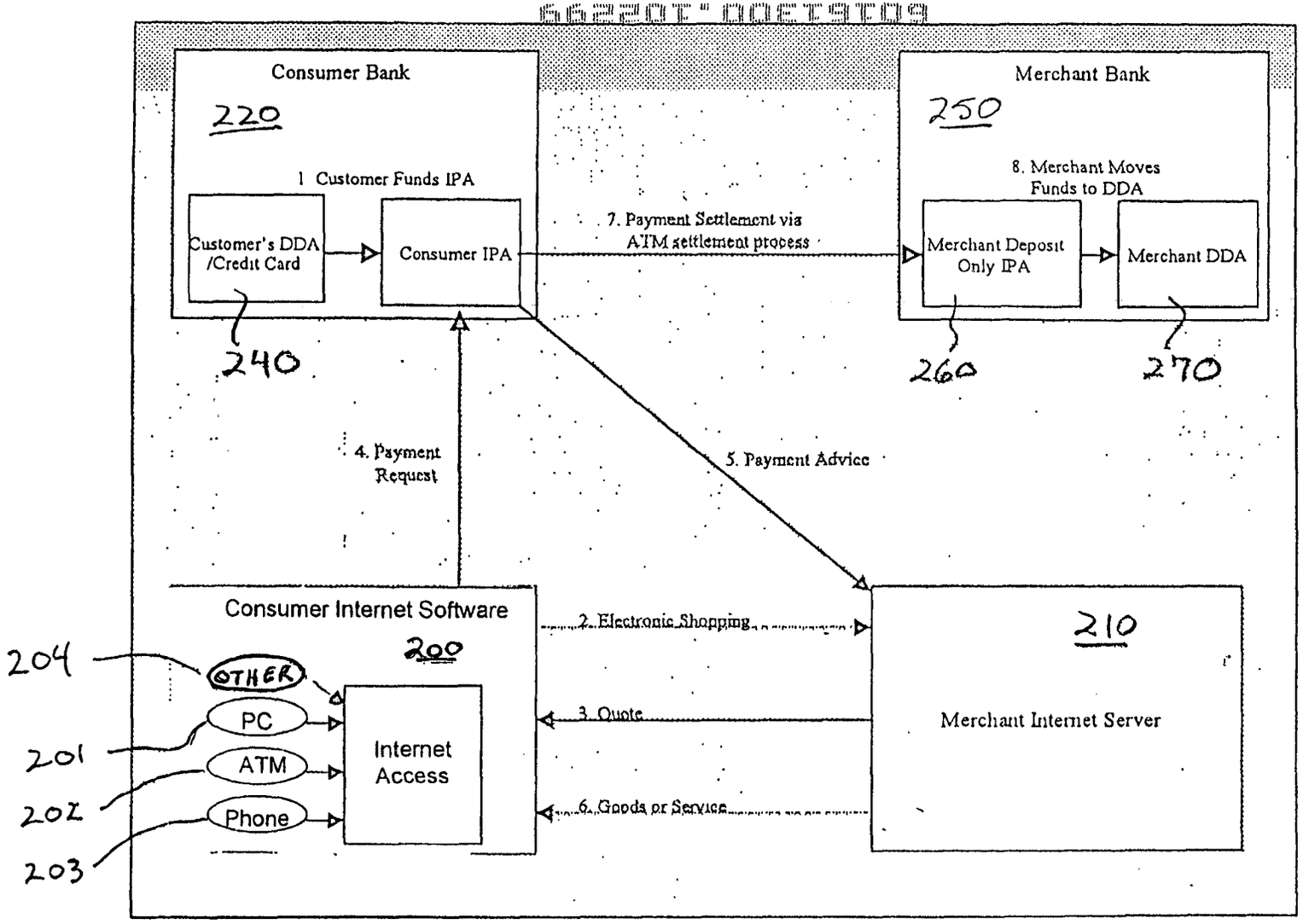

Consumer Bank
220
1 Customer Funds IPA
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
204
OTHER
PC
201
ATM
202
Phone
203
Internet Access
2. Electronic Shopping
3. Quote
6. Goods or Service
210
Merchant Internet Server

FIG. 3

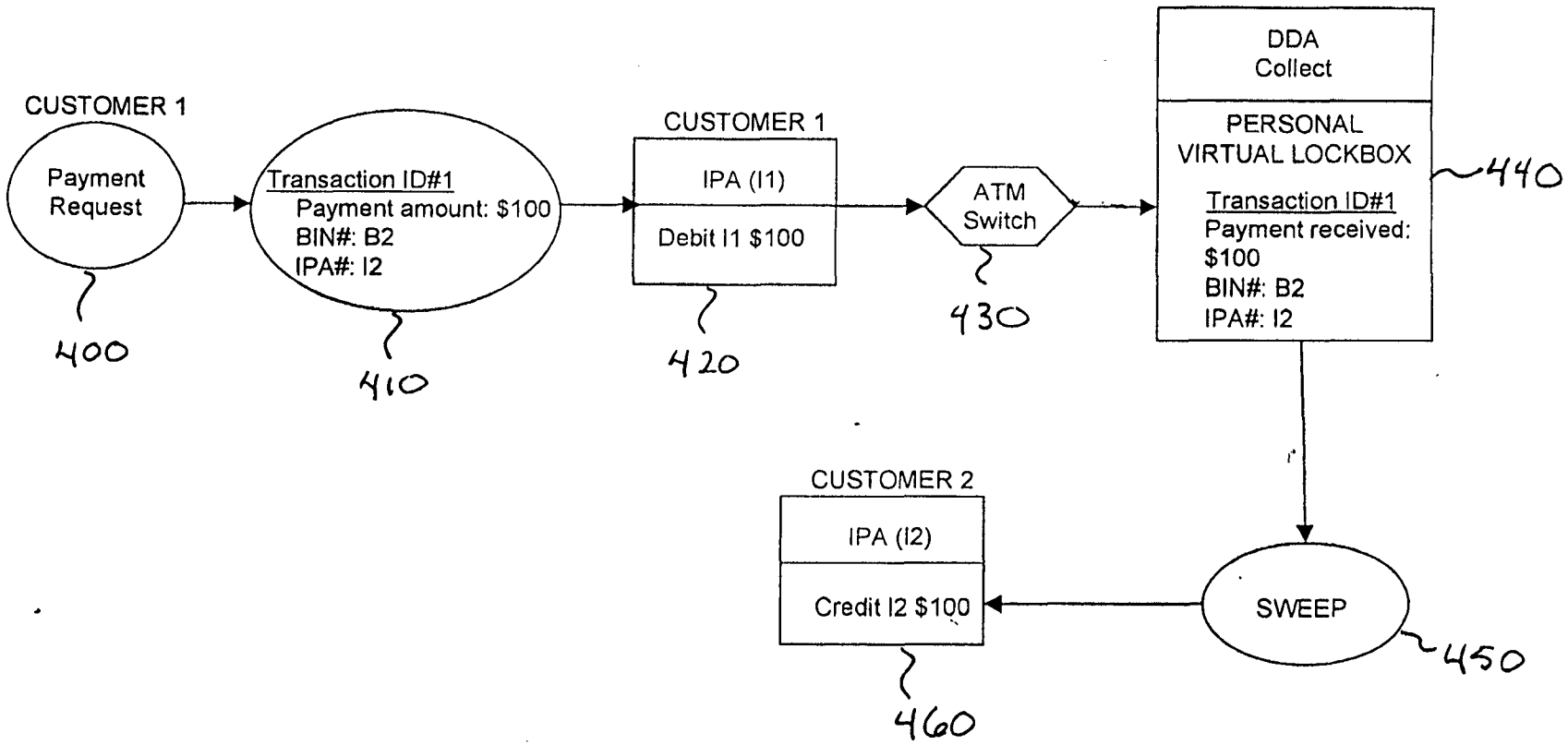

CUSTOMER 1
Payment Request
400
Transaction ID#1
Payment amount: $100
BIN#: B2
IPA#: I2
410
CUSTOMER 1
IPA (I1)
Debit I1 $100
420
ATM Switch
430
DDA Collect
PERSONAL VIRTUAL LOCKBOX
Transaction ID#1
Payment received: $100
BIN#: B2
IPA#: I2
440
CUSTOMER 2
IPA (I2)
Credit I2 $100
460
SWEEP
450

FIG. 4

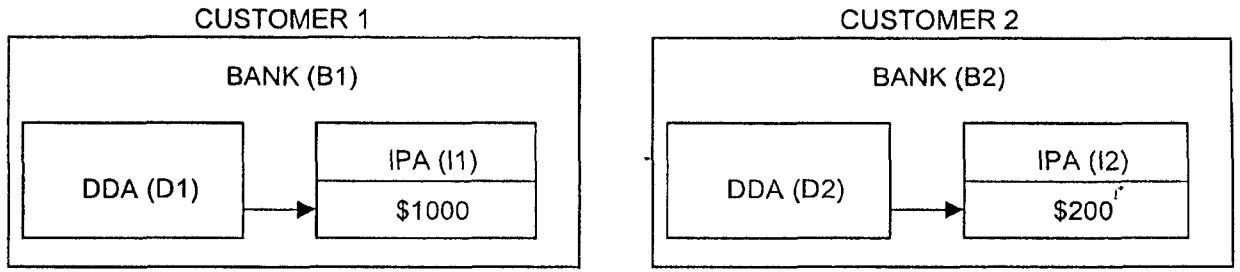

CUSTOMER 1
BANK (B1)
DDA (D1)
IPA (I1)
$1000
CUSTOMER 2
BANK (B2)
DDA (D2)
IPA (I2)
$200

FIG. 5

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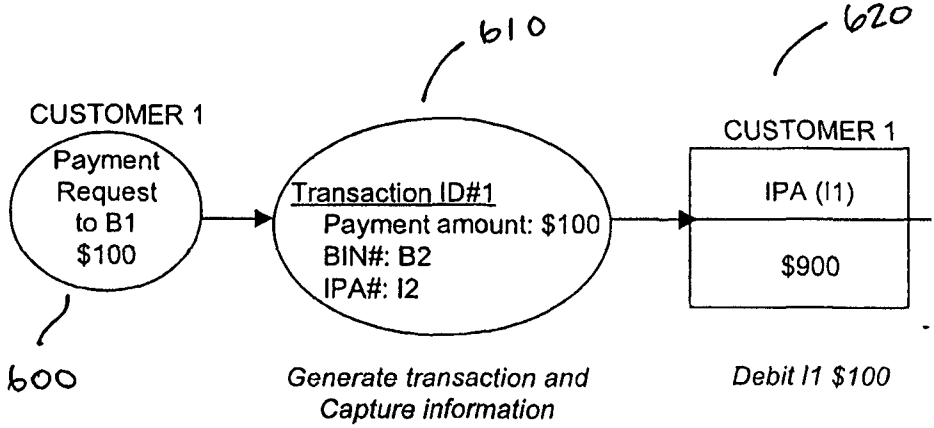
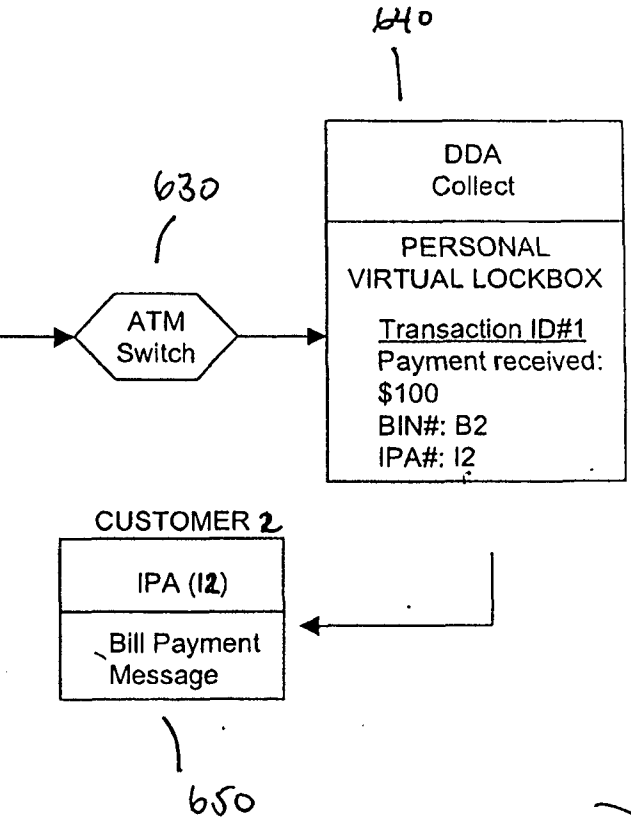


Fig. 6.


640
DDA
Collect
PERSONAL
VIRTUAL LOCKBOX
Transaction ID#1
Payment received:
$100
BIN#: B2
IPA#: I2
630
ATM
Switch
CUSTOMER 2
IPA (I2)
Bill Payment
Message
650

12x12

GLOBAL INTERNET PAY ANYONE MODEL - Funding

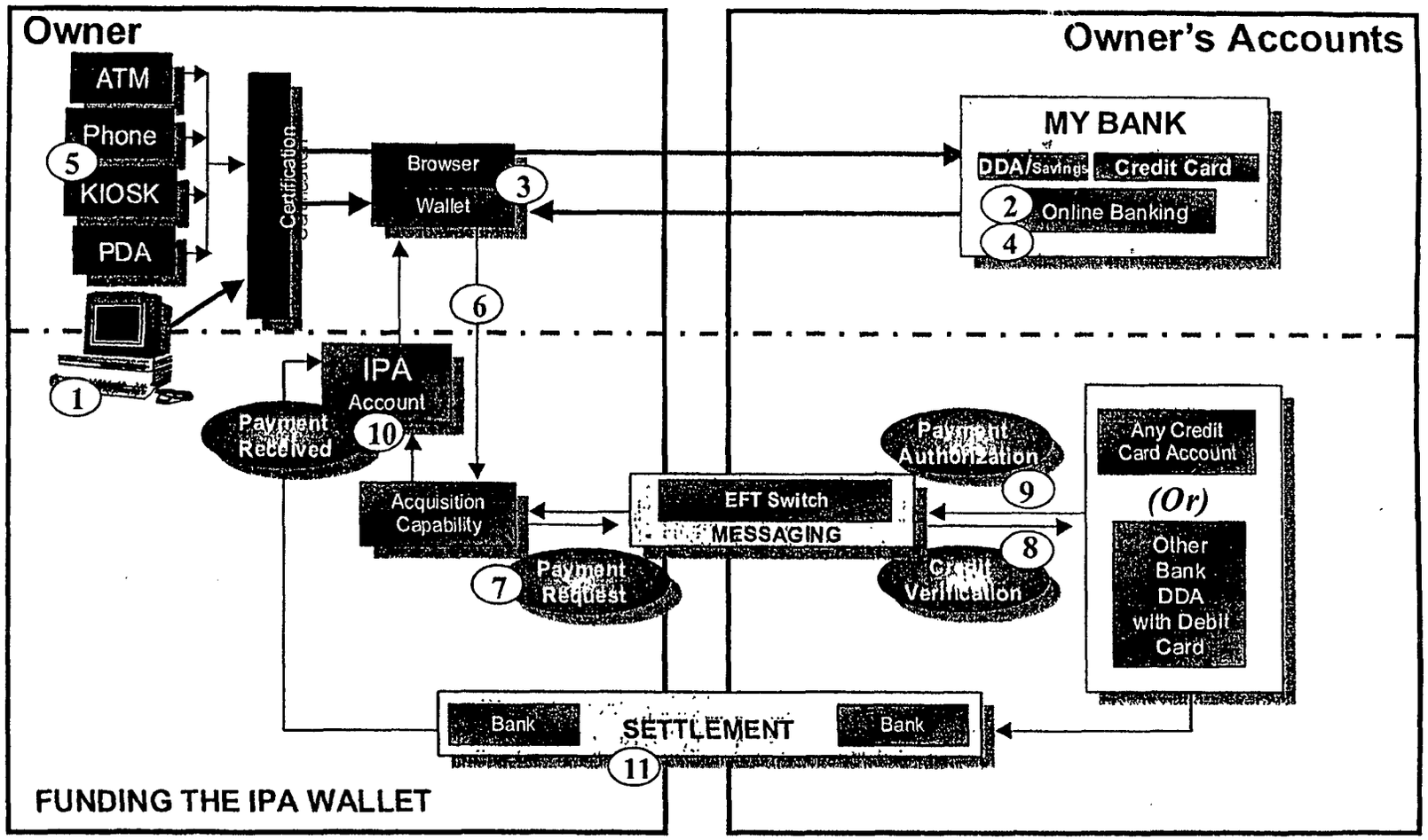
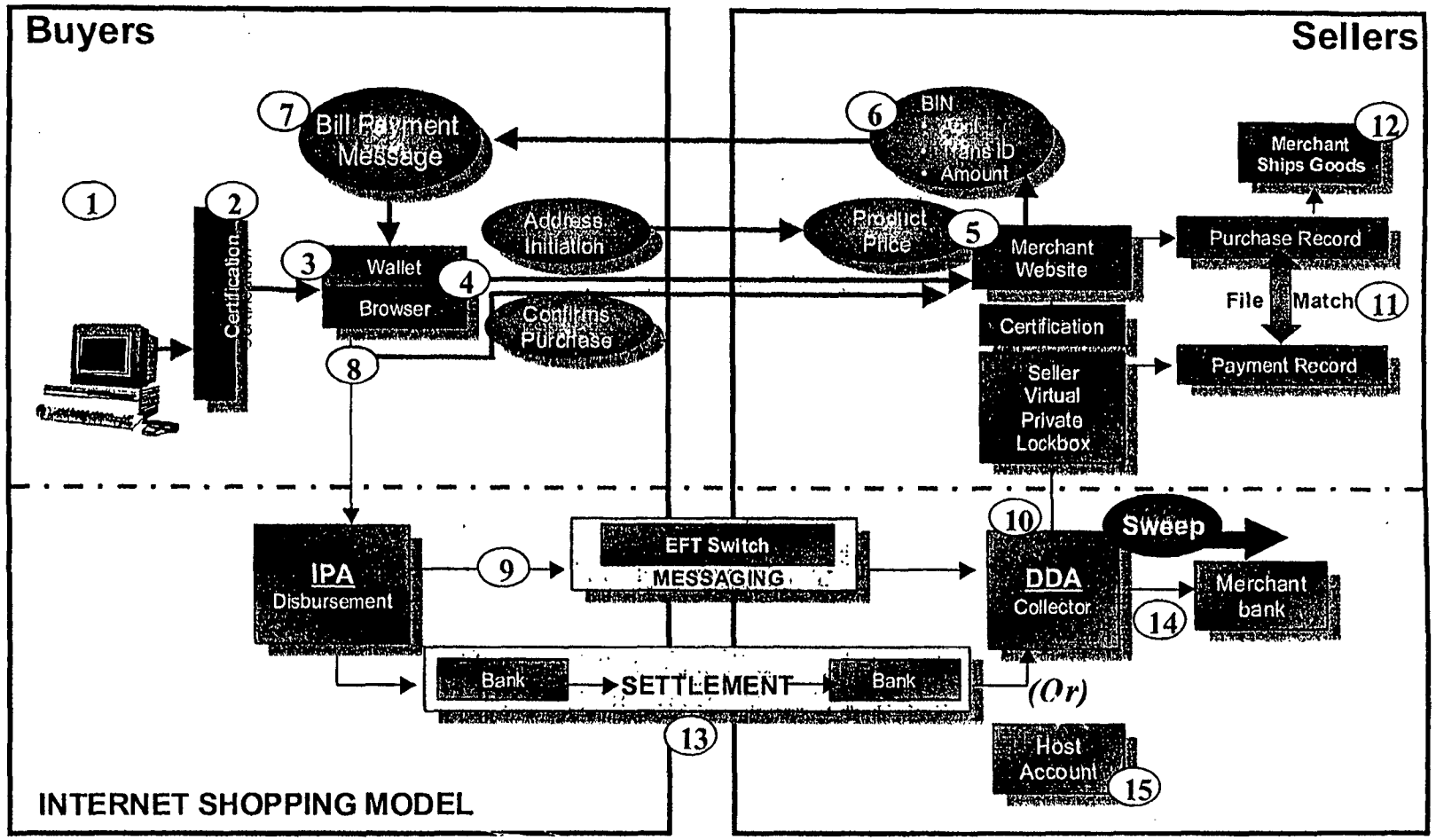
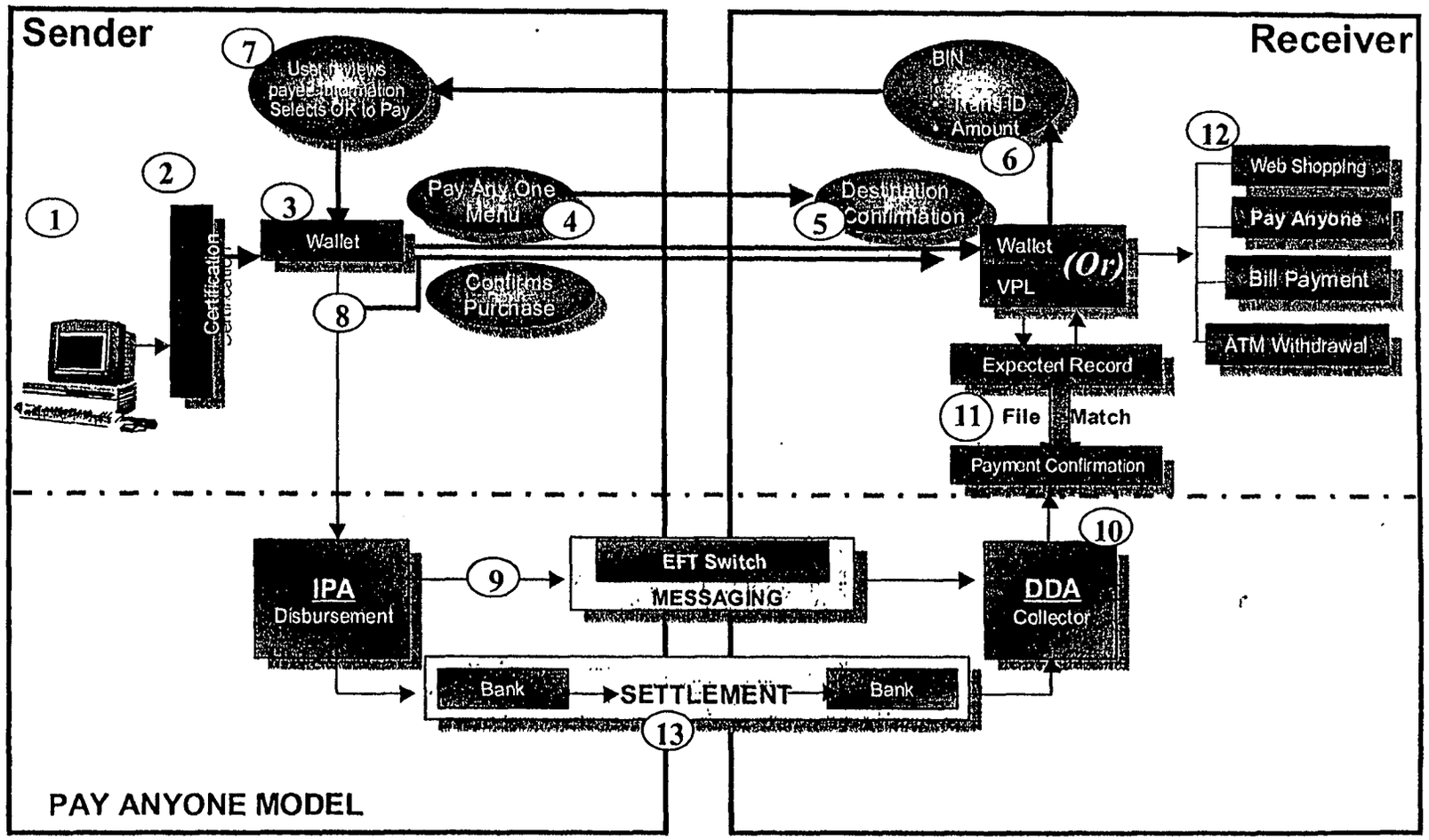


FIG. 7

GLOBAL INTERNET PAY ANYONE MODEL - # 1



GLOBAL INTERNET PAY ANYONE MODEL - # 2



Chase Check Strategy

GLOBAL INTERNET BILL PAY ANYONE MODEL - # 3A

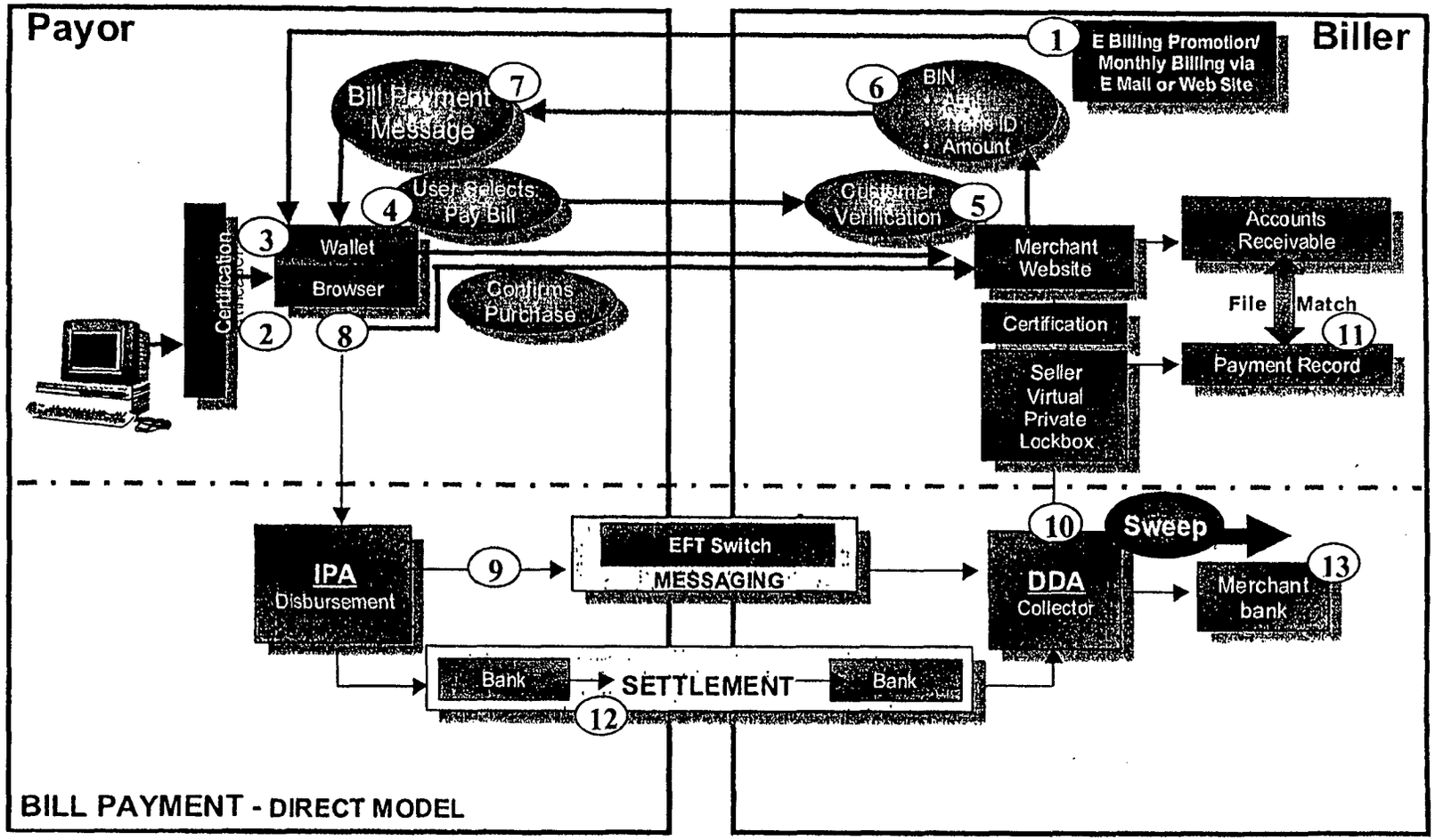
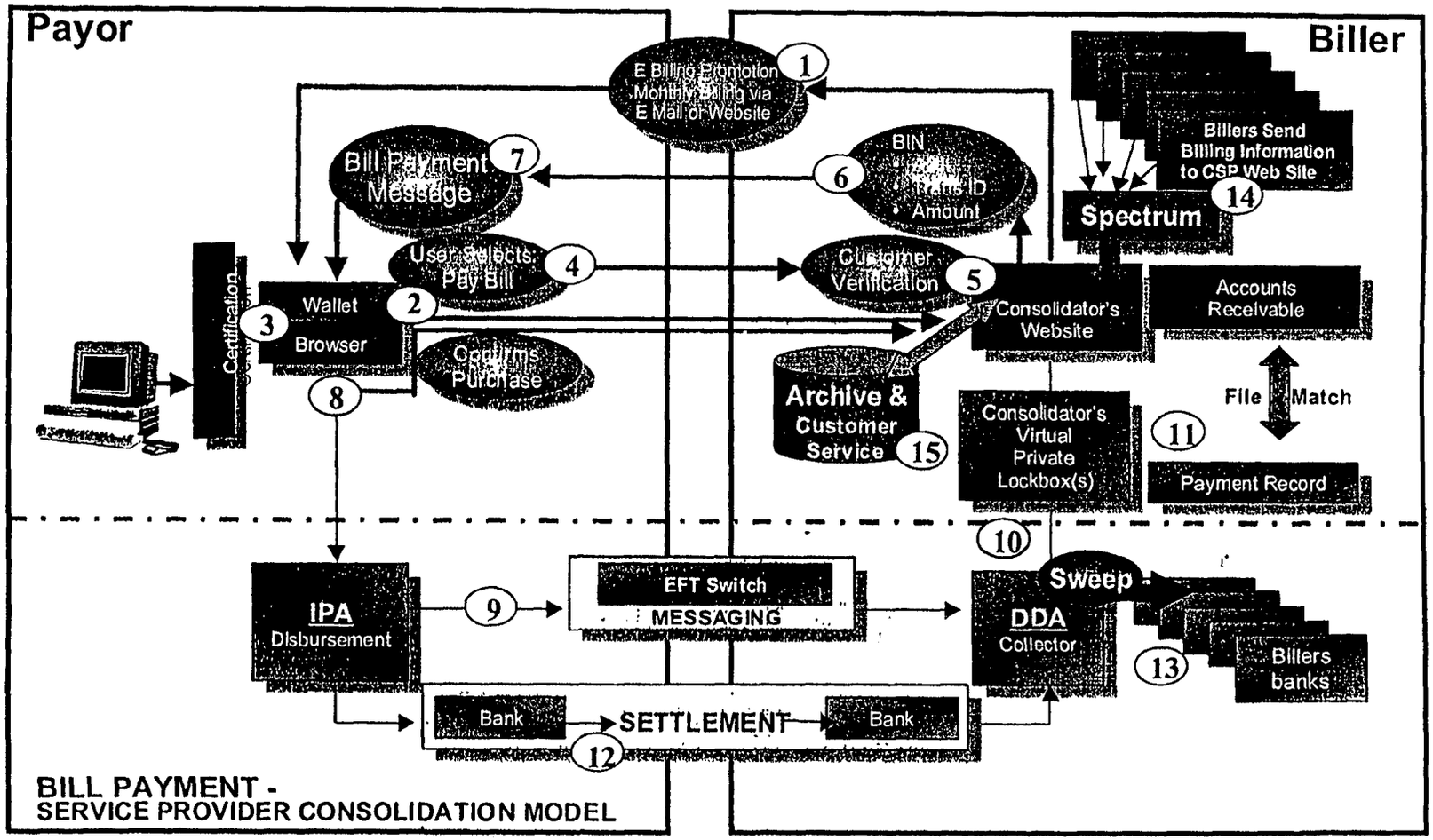


Fig. 10

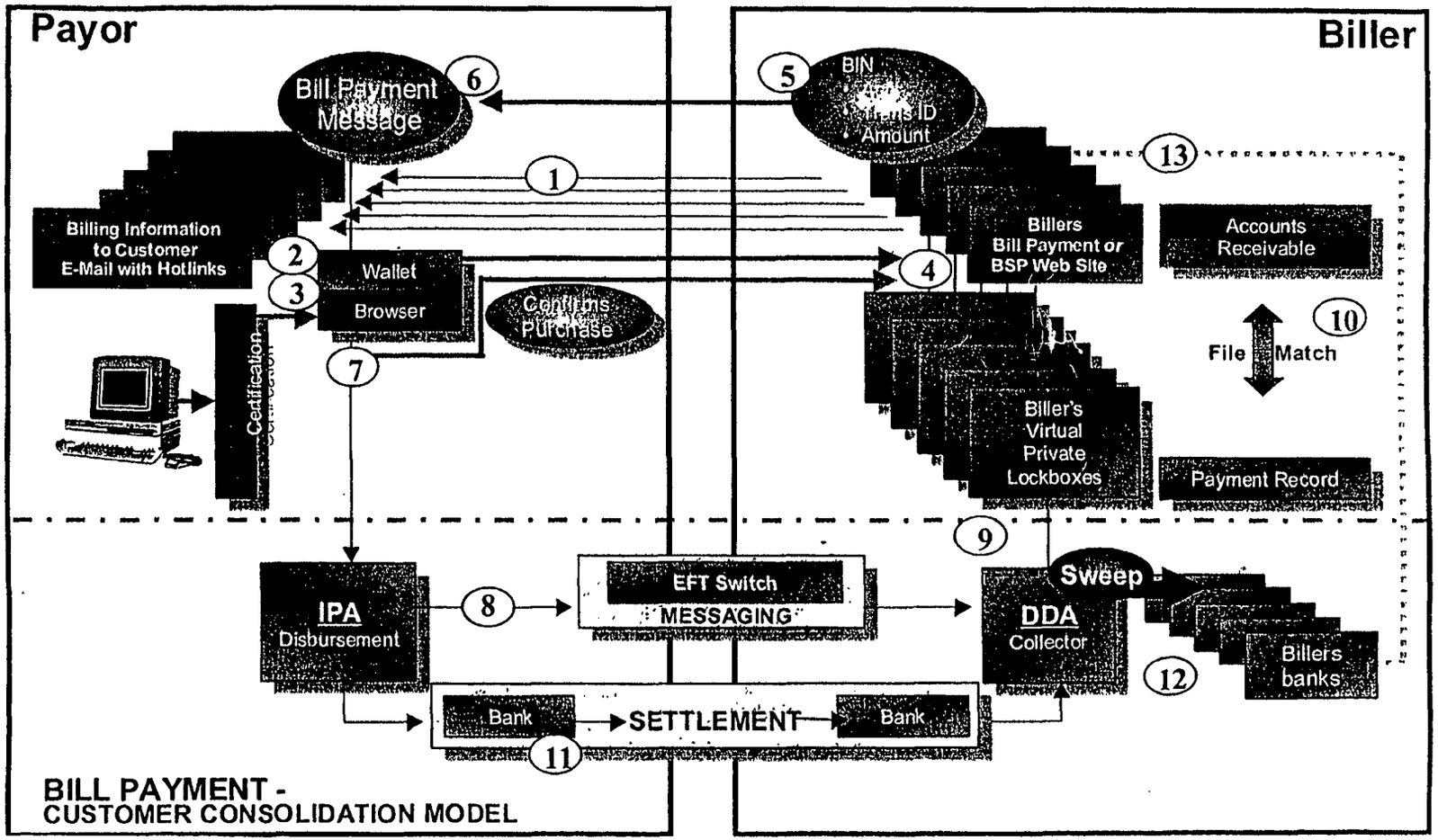
26

GLOBAL INTERNET BILL PAY ANYONE MODEL - # 3B



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GLOBAL INTERNET BILL PAY ANYONE MODEL - # 3C



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1/4" Classic PTO 1683-3 for 31 to 60 sheets

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LOS ESTADOS UNIDOS DE AMÉRICA

A TODOS AQUELLOS A QUIENES LA PRESENTE LLEGARE:

DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Patentes y Marcas de los Estados Unidos

Junio 20, 2000.

LA PRESENTE ES PARA CERTIFICAR QUE LA ANEXA A ESTA ES UNA COPIA FIEL DE LOS REGISTROS DE LA OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS DE LOS DOCUMENTOS DE LA SOLICITUD DE PATENTE IDENTIFICADA MÁS ADELANTE QUE SATISFACEN LOS REQUISITOS PARA QUE SE OTORGUE UNA FECHA DE PRESENTACIÓN BAJO 35 USC 111.

SOLICITUD NÚMERO: 60/161,300.

FECHA DE PRESENTACIÓN: Octubre 22, 1999.

Por la autoridad del

COMISIONADO DE PATENTES Y MARCAS

H. PHILLIPS

Funcionario Certificador

SELLO EN RELIEVE

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CARÁTULA DE SOLICITUD DE PATENTE PROVISIONAL

Esta es una petición para presentar una SOLICITUD PROVISIONAL bajo la 37 CFR 1.53(b)(2).

NUMERO DE EXPEDIENTE	PP/2167-134	Signo (+) en esta casilla	+

INVENTOR(ES)/SOLICITANTE(S)

APELLIDO	NOMBRE	INICIAL MEDIA	RESIDENCIA (CUIDAD Y YA SEA ESTADO O PAIS EXTRANJERO)
O`Leary	Denis		C/O Case Manhattan Bank 140 East 45th Street, 11th floor New York, NY 10017

TITULO DE LA INVENCIÓN (280 caracteres máximo)

MÉTODO PARA USAR AJUSTE POR CONMUTADOR DE MÁQUINA PAGADORA AUTOMATIZADA PARA PROCESAR TRANSACCIONES

DIRECCION POSTAL

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, N.Y., 10036

ESTADO: NY No. DE ZONA POSTAL: 10036 PAIS U.S.A

PARTES INCLUIDAS DE LA SOLICITUD (verifique todas las que se apliquen)

☐ Especificación No.de Páginas .....40.....

☐ Dibujos No. de Hojas .....12.....

METODO DE PAGO

El comisionado esta autorizado por este medio a cobrar impuestos de presentación y acreditar al No. de cuenta del depósito : 15-0700 Nuestro cheque No. 88906 se incluye para cubrir los derechos de presentación de la Solicitud Provisional	Impuesto provisional de pesentación Cantidad $150.00

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La invención fue hecha por un Agencia del Gobierno de los Estados Unidos o bajo un contrato con una agencia del Gobierno de los Estados Unidos.

☐ **No.**

Presentada Respetuosamente,

FIRMA (ILEGIBLE) **FECHA 10/26/99.**

Nombre mecanografiado o impreso: MICHAEL J. SCHEER

Registro No. 34,425

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Reivindicamos:

1. Un método para efectuar un pago electrónico entre un pagador y un beneficiario, teniendo el pagador una cuenta de pagador en un banco de pagador y teniendo el beneficiario una cuenta de beneficiario en un banco de beneficiario, comprendiendo el método las etapas de:
generar una petición de pago que identifique el banco del beneficiario, la cuenta del beneficiario y un monto del pago;
transmitir la petición de pago al banco pagador;
debitar la cuenta del pagador por el monto del pago;
transmitir una instrucción de transacción que representa un crédito en el monto del pago del banco pagador, a través de una sistema de Máquina Pagadora Automatizada (ATM) al banco del beneficiario; y
abonar la cuenta del beneficiario en la cantidad del pago en respuesta al recibo de la instrucción de transacción.

2. El método definido en la reivindicación 1, que comprende adicionalmente la etapa de recuperar información del beneficiario que identifique el banco del beneficiario y la cuenta del beneficiario.

3. El método según se definió en la reivindicación 2, en donde la etapa de recuperar comprende adicionalmente la etapa de recuperar la información del beneficiario desde un emplazamiento de red de Internet.

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4. El método según se definió en la reivindicación 3,en donde la etapa de recuperación es automática.

5. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la petición de pago al banco del pagador comprende adicionalmente la etapa de transmitir y la petición de pago a través del Internet.

6. El método según se definió en la reivindicación 5, en donde la etapa de transmitir la petición de pago al banco del pagador se lleva a cabo utilizando un computador personal.

7. El método según se definió en la reivindicación 5, en donde la etapa de transmitir la petición de pago al banco del pagador se lleva a cabo utilizando una máquina ATM habilitada por Internet.

8. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la petición de pago al banco del pagador comprende adicionalmente la etapa de transmitir la petición de pago por teléfono.

9. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de transmitir una garantía del pago del banco del pagador al beneficiario.

10. El método según se definió en la reivindicación 9, en donde la transmisión de la garantía es directamente al beneficiario.

11. El método según se definió en la reivindicación 9, en donde la transmisión de la garantía es desde el banco del beneficiario al pagador al beneficiario.

12. El método según se definió en la reivindicación 9, que comprende adicionalmente la etapa del banco del pagador que firma digitalmente la garantía.

13. El método según se definió en la reivindicación 1, en donde la cuenta del beneficiario es una cuenta sólo de depósito.

14. El método según se definió en la reivindicación 1, en donde el beneficiario es una compañía de facturación, el pagador es un cliente de la compañía de facturación y el pago es en respuesta a una factura proveniente de la compañía de facturación.

15. El método según se definió en la reivindicación 14, que comprende adicionalmente la etapa de recibir la factura electrónicamente.

16. El método según se definió en la reivindicación 15, en donde la factura es recibida electrónicamente por correo electrónico.

17. El método según se definió en la reivindicación 15, en donde la factura es recibida electrónicamente desde un emplazamiento de Internet.

18. El método según se definió en la reivindicación 14, que comprende adicionalmente la etapa de recibir una plantilla que contiene por lo menos información que identifica el banco del beneficiario y la cuenta del beneficiario.

19. El método según se definió en la reivindicación 18, que comprende adicionalmente las etapas de:
insertar dentro de la plantilla el monto del pago; y
generar la petición de pago en respuesta a la información contenida en la plantilla.

20. Un método para efectuar pagos electrónicos por compras en serie hechas por un consumidor desde un comerciante, comprendiendo el método las etapas de:
recuperar desde un emplazamiento de Internet del comerciante un monto de compra, e información del comerciante que identifique una institución financiera del comerciante y una cuenta del comerciante;
formar una petición que incluya el monto de compra y la información del comerciante;

transmitir la petición de pago a una institución financiera en la cual el consumidor mantiene una cuenta;

debitar la cuenta del consumidor por el monto del compra;

generar una instrucción de pago para abonar a la cuenta del comerciante por el monto de compra;

transmitir la instrucción de pago a la institución financiera del comerciante a través de una Máquina Pagadora Automatizada (ATM); y

abonar a la cuenta del comerciante por el monto de compra.

21. El método según se definió en la reivindicación 20, en donde la etapa de recuperar es automática.

22. El método según se definió en la reivindicación 20, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor comprende adicionalmente la etapa de transmitir la petición de pago a través del Internet.

23. El método según se definió en la reivindicación 22, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor es llevada a cabo utilizando un computador personal.

24. El método según se definió en la reivindicación 22, en donde la etapa de transmitir la petición de pago a la institución financiera del

consumidor es llevada a cabo utilizando una máquina ATM capacitada por Internet.

25. El método según se definió en la reivindicación 20, en donde la etapa de transmitir la petición de pago a la institución financiera del consumidor comprende adicionalmente la etapa de transmitir la petición de pago por teléfono.

26. El método según se definió en la reivindicación 20, que comprende adicionalmente las etapas de:
generar un aviso de pago que garantiza que el monto de pago será acreditado a cuenta del comerciante; y
transmitir el aviso de pago al comerciante.

27. El método según se definió en la reivindicación 26, en donde la transmisión de la garantía es directamente al comerciante.

28. El método según se definió en la reivindicación 27, en donde la transmisión de la garantía se hace utilizando una dirección de Protocolo de Internet (PI) diferente de la dirección PI utilizada por el consumidor para observar el emplazamiento de Internet del comerciante.

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29. El método según se definió en la reivindicación 26, en donde la transmisión de la garantía es desde la institución financiera del consumidor al consumidor al comerciante.

30. El método según se definió en la reivindicación 26, que comprende adicionalmente la etapa de firmar digitalmente el banco del pagador la garantía.

31. El método según se definió en la reivindicación 20, en donde la cuenta del comerciante es una cuenta de depósito solamente.

32. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es una cuenta de demanda de depósito.

33. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es una cuenta usada solamente para hacer pagos utilizando el método se la presente invención.

34. El método según se definió en la reivindicación 20, en donde la cuenta del consumidor es financiada desde una cuenta diferente mantenida por el consumidor.

35. El método según se definió en la reivindicación 34, en donde la cuenta diferente es una cuenta de depósito a la vista.

P. 329 131

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PA 247129

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 17, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***60/163,828***
FILING DATE: ***November 05, 1999***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

P. R. Grant

P. R. GRANT
Certifying Officer

TRADUCCION OFICIAL No. 2000/145

132

A/Prov

291

PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a PROVISIONAL APPLICATION under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-139	Type a plus sign (+) inside this box -->	+

INVENTOR(s)/APPLICANT(s)

LAST NAME	FIRST NAME	MIDDLE INITIAL	RESIDENCE (CITY AND EITHER STATE OR FOREIGN COUNTRY)
O'Leary	Denis		c/o Chase Manhattan Bank 140 East 45th Street 11th Floor New York, NY 10017

TITLE OF THE INVENTION (*280 characters max*)

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

CORRESPONDENCE ADDRESS

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, NY 10036

STATE	NY	ZIP CODE	10036	COUNTRY	U.S.A

ENCLOSED APPLICATION PARTS (*check all that apply*)

[X] Specification 43 Pages [X] Drawing(s) 13 Sheets [ ] Small Entity Statement

[ ] Other (specify)

METHOD OF PAYMENT

Our check No. _____ is enclosed to cover the Provisional Application filing fee.

The Commissioner is hereby authorized to charge any additional or missing fee to Deposit Account Number: 15-0700

PROVISIONAL APPLICATION FILING FEE AMOUNT ($)	$150.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government:

[ ] No. [ ] Yes, Agency and Government contract number are: _____

Respectfully submitted,

SIGNATURE Michael J. Scheer Date 11/5/99

TYPED NAME Michael J. Scheer REGISTRATION NO. 34,425

[ ] Additional Inventors are being named on separately numbered sheets and attached hereto

00427512.1

TRADUCCION OFICIAL No. 2003/195
HILDA ... DE DIEGARAITA
... DE OFICIAL
RES No 323 DEL MIN. DE ...

jc560 U.S. PTO 11/05/99
jc541 U.S. PTO 60/163020 11/08/99

11/05/99 jc568 U.S. PTO

METHOD FOR USING AUTOMATED TELLER MACHINE SWITCH SETTLEMENT FOR PROCESSING TRANSACTIONS

RELATED APPLICATION

This application is based on and claims priority to U.S. Provisional Patent Applications Nos. 60/132,305, filed May 3, 1999, 60/150,725, filed August 25, 1999, and 60/161,300, filed October 26, 1999, the entire disclosures of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to methods for processing electronic payments purchases made over the Internet and more particularly to a method by which a consumer pushes a payment to an Internet merchant.

BACKGROUND OF THE INVENTION

Presently, there are several methods by which a consumer can electronically pay for purchases made on the Internet, such as credit cards, off-line debit cards, online debit cards, digital cash, and smart cards. Each of these methods has its own advantages and disadvantages. An off-line debit card uses the traditional credit card system for clearing the payment but no Personal Identification Number (PIN) is required. The use of an on-line debit card requires that the consumer supply his or her PIN, and the amount of the purchase is debited from the consumer's account instantaneously. One

disadvantage with both the on and off-line debit cards, from a consumer's point of view, is the inability to reverse or repudiate the transaction. In contrast, by use of a credit card, the consumer at a later date can reverse the transaction (e.g., if the purchased goods are never shipped to the consumer).

It is predicted that credit cards will be the dominant on-line point of sale (POS) payment choice for at least the next five years. While new Internet payment mechanisms have been rapidly emerging, consumers and merchants have been happily conducting a growing volume of commerce using basic credit card functionality. None of the emerging efforts to date have gotten more than a toehold in the market place and momentum continues to build in favor of credit cards.

Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line POS for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. Furthermore, ACH payments have to be received, deposited and cleared before the funds are available. In contrast to ACH transactions, credit and off-line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication).

Two significant drawbacks with some or all of the above models for Internet POS payments are that:

1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her

account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the potential merchants conducting business on the Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 100, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

The at least one of the drawbacks described above equally applies to electronic bill payment. The first drawback, requiring a pre-existing relationship between the consumer and bill payee is not as great a concern because this relationship most likely already exists between the consumer and the payee (e.g., the telephone, cable or utility company for example). The

second drawback which requires the consumer to provide the payee with his or her account and/or PIN still remains a concern with electronic bill payment. Although fraud is less of a problem with respect to bill payment, since the consumer presumably has regular dealings with the payee, some consumers still view the provision of the payee with at least his/her account number a diminution in the consumer's privacy.

SUMMARY OF THE INVENTION

In the method of the present invention, a consumer uses its Internet software to browse the Internet for goods being offered by various Internet merchants. Once the customer finds an item its wishes to purchase, the consumer's Internet software extracts from the merchant's web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer then transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchant's account at the merchant's bank. If there is sufficient funds in the consumer's account, the consumer's bank will return a payment advice digitally over the Internet which guarantees the payment. This payment advice is then transmitted by the customer's Internet software to the merchant's Internet server. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. In an alternative embodiment, the payment advice is transmitted via the Internet directly from the consumer's bank to the merchant's Internet server.

Payment totals for each merchant are settled on a daily basis using Electronic Funds Transfer via the regional ATM network infrastructure with funds being moved from the consumer's account at its bank to the merchant's account at its bank.

By the method of the present invention, both of the significant disadvantages of the prior art have been overcome. First of all, the consumer is no longer providing its confidential financial information to strangers over the Internet. Rather, the consumer is dealing directly with its own trusted institution, the bank. Furthermore, no pre-existing relationship has to exist between the customer and the merchant. The only requirement is that the merchant recognize and honor the guaranteed payment from the consumer's bank.

The present invention significantly reduces the transactional cost as compared to the use of credit cards. The method also provides a reduction in fraud and credit losses, while the finality of the transaction virtually eliminates dispute and chargeback processing from the viewpoint of the financial institution.

The present invention is not limited to the case of a consumer making purchases from Internet merchants. The method has further, broader applicability by providing the ability for anyone with an account at a financial institution to transfer funds to anyone else who also has an account at the same or a different financial institution.

BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood

however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the method of the present invention;

Figure 3 depicts a second embodiment according to the method of the present invention;

Figure 4 illustrates a third embodiment of the method of the present invention;

Figure 5 illustrates additional details of the method of the present invention;

Figure 6 illustrates a specific example of the method of Figure. 4;

Figure 7 illustrates an Internet shopping model according to the present invention;

Figure 8 illustrates a pay anyone model of the present invention;

Figure 9 illustrates a wire anyone model of the present invention;

Figure 10 illustrates a bill payment, direct model of the present invention;

Figure 11 illustrates a bill payment, service provider consolidation model of the present invention;

Figure 12 illustrates a bill payment, customer consolidation model of the present invention; and

Figure 13 illustrates a structure and process for funding an Internet payment account wallet.

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DETAILED DESCRIPTION OF THE INVENTION

In contrast to the credit card, on-line and off-line debit and other payment models existing today, one of the unique features of the method of the present invention is the flow of the payment instruction and the payment which follows. In the credit card, on-line and off-line debit models, a consumer provides the merchant with an instruction that authorizes the merchant to collect funds from the consumer's bank account. Depending on the system, this payment instruction results in a guaranteed customer payment in the case of an on-line debit rather than a lengthy wait for funds (such in the case of a check) or something in between in the case of an off-line debit and credit card. The difference between the prior art models and the model of the present invention can be described as the difference between a "pull" and a "push" model. In the conventional models of today, the merchant "pulls" the payment from the consumer's account, while in the present invention the customer "pushes" the payment to the merchant's account.

Figure 2 illustrates a first embodiment of the method of the present invention. Prior to conducting any on-line purchases using the method of the present invention, the consumer establishes an Internet payment account (IPA) 230 with its bank 220. Once this IPA account 230 has been established, the consumer funds this account from its demand deposit account (DDA) 240. The establishment of a separate IPA 230 is preferable from a consumer's point of view in order to provide a separate accounting and statement from its normal DDA account 240. Furthermore, the IPA account might not be interest bearing and the consumer would accordingly only fund small amounts into this account in order to cover potential on-line purchases. In an alternative

embodiment of the present invention, the consumer's payment request for credits and debits can be made directly against its DDA account 240. Furthermore, the IPA 230 can be funded from a consumer's Line of Credit or credit or debit card account held by the bank 220 or any other linked account from which the consumer can transfer funds.

The consumer uses Internet browsing software 200 in order to initiate a payment transaction. In one embodiment of the present invention, the Internet software is loaded on the consumer's personal computer 201. In alternative embodiments, the software can reside in a web enabled ATM machine 202, or remotely located and accessed via a telephone 203. The element Other 204 has been illustrated in order to convey that the present invention is not limited by any particular physical device and can employ any device which provides access to the Internet. For example a public Internet kiosk which provides access to the Internet can be used to practice the present invention.

In one embodiment of the present invention, the Internet software 200 is used in order to browse the Internet and visit the web sites of various merchants. As a consumer browses the web site of a particular merchant 210, all of the information viewed by the consumer is downloaded onto the consumer's computer or the device which is providing the Internet access. This downloaded information includes prices for the goods and services offered by the merchant as well as an identification of the merchant's bank 250 and the number of an account 260 which the merchant holds at its bank 250. If a consumer decides to go ahead with a particular purchase, the consumer's Internet software 200 extracts from the downloaded information the price for the item and the identification of the merchant's bank 250 and

account number 260. A transaction identifier is preferably assigned at this time either by the merchant's Internet server 210 or the consumer's software 200.

In another embodiment of the present invention, the entity who will eventually be receiving funds from the consumer can be an individual. For example, the consumer might be responding to a classified advertisement (electronic or traditional paper) or purchasing an item or a service through an electronic auction site such as eBay(TM). In either of these cases, the consumer obtains the payee's bank 250 identification and account number 260 in a variety of ways. In one method, the consumer obtains this information electronically from the service where it contacted the individual (e.g. through eBay(TM)). Alternatively, the consumer can obtain the necessary destination bank information through offline methods such as the traditional paper classified advertisement or through an Email which has been "pushed" to the consumer by the potential payee.

In an alternative bill paying embodiment, the consumer has all of the relevant bank and account information for each of the payees (e.g. telephone service provider) which the consumer regularly pays bill electronically. An electronic bill can be presented to the consumer either through E-mail or from an Internet site maintained by the payee or by a Consumer Service Provider for the payee. The bill can contain a button for paying the bill through the use of the present invention (i.e. through the ATM system). When the customer selects the button, a template is presented to the customer which has all of the bank and account information prefilled. The customer merely fills in the amount he/she wishes to pay. Upon completion, the user selects a transmit button in response to which the payment message is

formatted with the supplied information and transmitted to the consumer's bank for processing. The same payment template can be used either included in an E-mail or from the payee's web site as described above.

In a further embodiment, the consumer has a personal relationship with the eventual payee and has been previously provided with the destination banking information by the eventual payee. For example, if a parent has a son or daughter away at college, the parent has knowledge of the child's bank 250 and account 260 and is able to transfer funds to the child's account 260 in a simple, quick and cost efficient manner by use of the present invention.

Returning to Fig. 2, with the bank 250 identification and account 260 information in hand, the consumer's Internet software 200 formats and transmits a message containing this information to its own bank 220. The message will contain at least the identification of the consumer's account 230, the destination bank 250, and the destination account 260. For example, this payment instruction from the consumer asks that fifty dollars be debited against its account #1234 and that credit be forwarded to merchant's account #5678 at the merchant's bank.

With respect to authentication, because the consumer is pushing the payment to merchants or other entities or individuals, rather than the merchants pulling payments from consumer accounts, the consumers do not need to authenticate themselves to the merchant. Rather, the consumers authenticate themselves to their own bank 220 which then executes the payment to the merchant's account. The consumer's bank 220 will require some form of authentication of the payment request from the consumer. This authentication can be in the form of a software certification, an encrypted PIN,

or the mother's maiden name of the consumer. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment request.

This method of the present invention is quite attractive to consumers because they can pay any individual or entity regardless of the existence of a pre-existing relationship with that individual or entity. The transaction can furthermore be conducted from anywhere there is access to the Internet. The IPA account 230 can be used and managed through the consumer's PC 201, a web enabled ATM 202, by phone 203 or by any other web enabled device 204. With respect to merchants, individuals or other entities which are paid by the method of the present invention, there are several advantages. This method opens up a universe of buyers/payors without the access or desire to use credit or debit cards online. A very low effort is required on the part of a merchant which only has to publish its bank 250 and IPA deposit only account 260 information on its web site. If a merchant has been using traditional credit card methods, the present invention provides the merchant with significant savings in credit card processing, fraud loss, and chargeback costs. The present invention also provides the ability to economically accept micropayments.

Returning again to Fig. 2, in fulfilling the payment request from the consumer, the bank 220 will initially verify that there are sufficient funds in the consumer's IPA account 230 to satisfy the payment request. If there are sufficient funds in the consumer's IPA account 230, the account is immediately debited or the funds held such that funds equal to the amount of the payment are no longer available in the customer's IPA account 230. The funds debited from the consumer's IPA account 230 are credited to the

destination account 260 as described in more detail below. If insufficient funds exist in the customer's IPA account 230, the payment request is denied and the consumer's Internet software 200 is informed of the insufficient funds condition. In an alternative embodiment of the present invention, the consumer is provided with the ability to transfer funds from its DDA account 240 into the IPA account 230 such that sufficient funds are available to cover the payment request.

If sufficient funds exist in the IPA account 230 to process the payment request, the consumer's bank 220 generates a digital payment advice which is transferred back over the Internet to the consumer's Internet software 200. In a preferred embodiment, this payment advice is digitally signed by the consumer's bank 220, thus guaranteeing the payment. Once this payment has been digitally signed by the consumer's bank 220, all of the risk associated with this payment lies with the consumer's bank 220 and not with the merchant 210 or its bank 250 as with some of the models described above. For this reason, the model of the present invention is an attractive alternative to merchants conducting business on the Internet. Various forms of implementing the digital signature by the consumer's bank 220 are well known in the art.

Upon receipt of the payment advice from the consumer's bank 220, the consumer's Internet software 200 forwards this payment advice to the merchant's Internet server 210. Once the merchant has received the payment advice from the consumer's Internet software 220, the transaction can be completed by the shipment of the goods or provision of the service to the consumer.

The settlement process between the consumer's bank 220 and the merchant's bank 250 typically occurs once a day, at the end of the day, but may occur in real time or batched processed when the transactions reaches a dollar or absolute number limit. As described above, the consumer's IPA account 230 has been debited for the amount of the purchase. This debited amount now needs to be transferred to the merchant's bank 250 in order that a credit be applied to the merchant's account 260. In a preferred embodiment of the present invention, the merchant has established a deposit only IPA 260 in which funds can only be deposited and not withdrawn. This is a security feature which protects the merchant from various forms of electronic fraud. Alternatively, the destination account 260 could be another type of deposit only account or a DDA account in the case where the receiving party truly trusts the consumer (e.g. the parent/child relationship previously described).

In the present invention, the consumer's bank 220 accomplishes the payment settlement via the conventional ATM electronic Funds Transfer process. Using this well known process, the consumer's bank 220 designates the merchant's bank 250 and the specific account 260 to which the credit of the purchased amount should be applied. Furthermore, the consumer's bank can include in the ATM message the transaction ID previously described for tracking and auditing purposes by the merchant and the merchant's bank 250. This auditing information allows the merchant to match the merchant's payables to its receipts. This information can also be used in the reconciliation process with respect to the merchant's account.

Periodically, funds from the merchant's deposit only IPA account 260 are transferred (swept) by the merchant bank 250 into the merchant's conventional DDA account 270.

Figure 3 illustrates an alternative embodiment of the present invention. All of the initial steps with respect to the consumer browsing the merchant's web site and formulating the payment request which is forwarded to its bank 220 are the same as illustrated in Figure 2. The difference in the embodiment illustrated in Figure 3 as compared with the embodiment depicted in Figure 2 is that the payment advice from the consumer's bank 220 is forwarded directly to the merchant's Internet server 210. This payment advice will therefore come from a separate Internet Protocol (IP) address from the address that connects the consumer's Internet software 200 to the merchant's Internet server 210. This feature will provide additional confidence to the merchant that the advice has indeed originated from the consumer's bank and is not a fraudulently generate advice.

The push model of the present invention has significant advantages over the conventional methods used today. This method is extremely easy for online banking customers to adopt. The method guarantees payment to the merchant without any concerns about repudiation inherent in the use of a credit card. The present invention reduces fraud loses compared to offline debit, credit card or checks. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with its own financial institution.

Fig. 4 illustrates the broader embodiment of the present invention briefly described above. In this embodiment, a customer 1 (payor) of a financial institution is able to transfer funds to a customer 2 (payee) of a the same or different financial institution. This embodiment is particularly suitable for the bill payment example described above. Prior to the practice of

the method illustrated in Fig. 4, both customer 1 (payor) and customer 2 (payee), must each have established an account and deposited funds into their respective financial institutions. In a preferred embodiment, these accounts are specific Internet Payment Accounts (IPA) I1 and I2, at the customers' respective banks B1 and B2 (Fig. 5). Here, customer 1 has deposited $1000 into IPA I1 and customer 2 has deposited $200 into IPA I2. As previously described, an IPA can be funded through any linked account such as the customer's DDA or credit account, or through another IPA. The customer does not need to have a DDA or credit account at a bank to set up an IPA, as these accounts could be funded by accounts at another bank or through cash. As shown in Fig. 5, however, both customer 1 and customer 2 have linked DDA accounts D1 and D2, respectively, to IPA I1 and IPA I2. Once this is done, the IPAs can be used for web shopping, pay anyone anywhere, and bill payment. Alternatively, as described above, the payments made according to the method of the present invention can be made directly from/to a DDA account.

Once customer 1 has set up its IPA I1, the customer 1 can request that payments be made (e.g. bills) through the IPA I1. With this payment system, customer 2, the payment recipient, can be a billing company, such as a telephone company. As previously described with respect to Fig. 3, in step 400, the payment can be requested by phone, ATM or PC. Customer 1 must give his/her bank, B1, the following information: the payment amount, customer 2's BIN and IPA#. In step 410, this information is used by bank B1 to create a transaction instruction filed under a transaction ID#, T1. Because customer 1 is directly contacting his/her own bank B1, no authorization is required. Customer 1 authenticates him/herself by inputting a pin number or

other ID. In step 420, after authentication, customer 1's bank, B1, debits customer 1's IPA, I1, by the amount of the payment (e.g. $100 as illustrated in Fig. 4). In step 430, the transaction instruction representing the credit to customer 2 is transmitted to customer 2's bank B2 through the ATM network. The receiving bank B2 can send a confirmation message back to customer 1 through its bank B1 that the transaction was received by bank B2.

In step 440, upon its receipt by the bank B2, the transaction information T1 representing the credit to customer 2's account, is stored in a personal virtual lockbox. Alternatively, the credit is directly applied to customer 2's IPA I2. The concept of a personal virtual lockbox is borrowed from retail lockbox processing in which a bank collects the receivables for an entity and performs the financial processing on such receivables. The personal virtual lockbox in the present invention operates similarly in that it stores receivables throughout the day for customer 2 which are then swept, in step 450, into the customer's IPA I2. In step 460 the actual credit is applied to customer 2's IPA I2.

Reference is now made to Fig. 6 which illustrates a further example of the present invention. Fig. 6 illustrates a specific application of the present invention in which a customer 1 desires to transfer funds to customer 2, where customer 2 is anyone that needs to be paid, such as one's gardener, or anyone who requires funds, such as a child at college. As with the example of Fig. 4, customer 1 and customer 2 preferably have established and deposited funds into Internet payment accounts IPA I1 and IPA I2 at the customer's respective banks B1 and B2 (Fig. 5). Customer 1, for example the owner of real property, has deposited $1000 into IPA I1 and customer 2, for example a gardener, has deposited $200 into IPA I2.

Although not necessary, customer 1 and customer 2 have established DDA accounts D1, D2, respectively, at their banks B1, B2 to link with the IPA accounts.

At step 600, customer 1 requests that a payment be made, for example by phone, ATM, PC, etc. In this instance, customer 1 wishes to transfer $100 from his IPA account I1 in bank B1 to customer 2's IPA account I2 at bank B2. At step 610, customer 1 provides his payment account number, customer 2's BIN number and customer 2's IPA account number. This produces a transaction instruction for a particular transaction, here designated ID# 1, where the BIN number is designated B2 and the IPA number is designated I2. Customer 1 authenticates himself by inputting a pin number or other such ID number into the system.

At step 620, bank B1 debits customer 1's IPA I1 by $100, leaving IPA I1 with a balance of $900. At step 630, the transaction instruction is transmitted to bank B2 through the ATM switch network.

At step 640, the transaction instruction commanding a deposit into customer 2's IPA account I2 is stored in a personal virtual lockbox. As previously discussed, the credit to customer 2's IPA account I2 may alternatively be directly applied rather than utilizing the virtual lockbox. The credit of $100 is applied to customer 2's IPA I2 when accounts are swept in. At step 650, customer 2 actually receives the $100 credit to his account and is provided with a bill payment message indicating that the transaction was completed.

Those skilled in the art will appreciate that the above example applies equally well to the situation in which customer 1 would wish to

transfer funds to, for example, a child at college, rather than providing funds in exchange for services.

The following sections will describe six different specific embodiments of the present invention with respect to Figures 7-13. The Global Electronic Payment Solution represents a new payments paradigm that leverages legacy platforms, conventional payments infrastructure and currently available web-based technology to enable e-commerce in both the virtual and physical marketplace. The concept provides a safe, sound, and secure method that will allow consumers to shop on the web, pay bills, and pay anyone virtually anywhere... all without the consumer having to share account number information with the payee. Merchants will get immediate payment confirmation through the EFT networks so they can ship their product with confidence. This concept also enables small dollar financial transactions, allows for the creation of "web cash" as well as provides customer service and record-keeping.

We intend to offer this concept as a value-added service to Chase customers, and license it to the nation's banks for distribution to their corporate and retail customers. By connecting consumers' digital wallets to the merchants' Virtual Private Lockboxes through the EFT networks, the nation's banks can maintain their dominance in the payments mechanism.

How it Works - The enabling functionality resides in four pieces: a "Wallet", a "Virtual Private Lockbox/VPL Reporter", an "Internet Pay Anyone (IPA) Account" and the Nation's EFT networks. The Wallet is a software application that augments any Internet browser with e-commerce capability. The software sits in front of (and links to) either a DDA account or an IPA account. The IPA account is a special purpose DDA with limited

functionality, similar to EZ-Pass or Ready Pay. Once a transaction is authorized on the web, the payment is then passed through the existing ATM infrastructure.

The Wallet – The Wallet is a secure portal for accessing your DDA or IPA account. It can be purchased on line and is activated through any Internet browser. Consumers use this Wallet to fund their account, shop on the web, fill out web purchase forms automatically, pay bills, pay anyone, store electronic receipts and check their recent Wallet activity. The Wallet provides consumers with a safe, secure, and convenient way to conduct financial transactions over the web.

The Virtual Private Lockbox (VPL) – The VPL is a limited function DDA account. A VPL is constructed with the ability to receive any electronic payment. It can only send funds to its corresponding DDA or IPA account. Therefore a VPL is a secure address that can be provided to the public as a means of receiving funds. Additionally, since it will receive transaction data from the EFT network, it will provide immediate notification of incoming payments.

Internet Pay Anyone Account (IPA)- IPA's are DDA accounts with limited functionality similar to EZ-Pass and Ready Pay. Funds can be accessed electronically through a PC or via card reader technology only. This restriction enables sale of this product to markets where banks do not have brick and mortar and enables controlled or restricted purchase ability and funds distribution (e.g. enables parental control).

The VPL Reporter- Similar to a consumer Wallet, the VPL Reporter is a portal to your VPL account via the Internet. However, the functionality of a VPL Reporter differs greatly from a Wallet. The VPL

Reporter is a merchant tool that provides online, real-time transaction reports, and reconciles accounts receivable/purchase records against incoming EFT payment records. In addition, transaction history can be archived and retrieved via the VPL Reporter's payment search engine, so that merchants can have powerful data mining and customer service tools at their fingertips.

With reference to Figure 7, Web Shopping: The Wallet and the Virtual Private Lockbox (VPL) significantly enhances the consumer and merchant experience when used for web shopping. A Wallet icon will be located on the browser toolbar. When shopping the web, the user simply launches the Wallet. Once the consumer commits to purchasing an item, the merchant's site will recognize that the transaction is from a Wallet owner. The Wallet will instantly fill out all required fields. In addition, rather than the merchant "pulling" in the consumers account information, the Wallet "pushes" guaranteed funds to the merchant's Virtual Private Lockbox, without the merchant obtaining the consumers account info. This transaction is virtually instantaneous, provides privacy, security, and convenience to the consumer -- and guarantees funding, provides reconcilement, and supplies archival records to the merchant. The following further describes the enumerated steps illustrated in Figure 7.

Step #	Description
1	User launches browser, goes web shopping. After electing to make a purchase selects Wallet icon from browser toolbar.
2	User keys in user ID and password. The user is authenticated and has access to their Wallet.

3	User is then presented with balance information and can select from several options:
	· Shop on the Web · Pay Anyone · Pay Bills
4	User selects "Shop on the Web". Browser could be initially directed to ChaseShop.com for a list of chase-approved merchants, however user is free to navigate to the merchant web site of their choice.
5	User selects item for purchase from merchant web site. Since web Wallet is active, merchant recognizes user as a Wallet customer, and purchase fields (shipping address, name, etc.) are auto-populated from Wallet.
6	Merchant site generates and transmits to user a bill payment message providing the following data: · Merchant BIN · Merchant Account # · Transaction ID · $ Amount
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "purchase item".
8	Wallet verifies balance and passes transaction to IPA or DDA account; payment conformation sent to the Merchant's website.
9	Bill payment message is passed from user's bank's IPA or DDA to the merchant's VPL via the ATM switch.
10	The bill payment record is transmitted from the

	merchant's VPL to the merchant's VPL reporter.
11	Upon receipt of the payment message, merchant's payment record can be reconciled against the merchant's purchase records. With VPL reporter, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
12	Merchant ships goods
13	Funds are settled once a day between user's bank's DDA and merchant's bank's DDA.
14	Funds can be swept to merchant's cash concentration bank.

Referring now to Figure 8, Model #2A, Pay Anyone: The Wallet provides the user with tremendous flexibility. Anyone with a Wallet can send funds to anyone else with a Wallet. This funds transfer is instantaneous and at no cost to the consumer, and is conducted in a secure environment. The following further describes the enumerated steps illustrated in Figure 8.

Step #	Description
1	User launches browser and selects Wallet icon from browser toolbar.
2	User keys in user id and password. The user is authenticated and has access to their Wallet.
3	User is then presented with balance information and can select from several options:

	· Shop on the Web · Wire Anyone · Pay Anyone · Fund Wallet · Pay Bills · Check Receipts from Wallet Activity
4	User selects "Pay Anyone". User is given several options in the Pay Anyone menu screen: · Manually key in payee's VPL # · Select a prior payee from a drop down menu · Add/Remove/Edit Payee from drop down menu · Go to online directory of VPL #s User keys in (or selects) payee's VPL #, $ amount, and a description (optional). Please note: 5, 6 and 7 can be eliminated for redundant/repeating payments to known payees.
5	Payment info. is transmitted to payee's Wallet for VPL # verification as well authorization to pay.
6	VPL confirms that information is correct and transmits a payment message with the following data: · Payee BIN · Payee Account # · Transaction ID · $ Amount · description
7	User reviews payment message and selects "OK to Pay".
8	Wallet sends transaction to VPL account; an expected payment record is also transmitted to the payee's Wallet.
9	Payment message is passed from user's bank's IPA or

	DDA to the payee's VPL via the ATM switch.
10	The payment record is transmitted from the payee's VPL to the payee's Wallet
11	Upon receipt of these guaranteed funds, payee's payment record is reconciled against the expected record.
12	Payee now has immediate use of funds. These funds can be used for web shopping, bill payment, pay anyone, or withdrawal via an ATM
13	Funds are settled once a day between user's bank's DDA and payee's bank's DDA.
14	Once a day, the VPL will sweep funds to its corresponding DDA or IPA. Those funds can then be accessed for ATM withdrawal.

With reference to Figure 9, Model #2B, Wire Anyone: Another useful feature of this model is the ability to wire anyone funds instantly. A wallet owner can set up an IPA account for anyone else, and then move funds to their account immediately. The transaction is conducted in a secure environment. The following further describes the enumerated steps illustrated in Figure 9.

Step #	Description
1	User launches browser and selects Wallet icon from browser toolbar.
2	User keys in user id and password. The user is authenticated and has access to their Wallet.
3	User is then presented with balance information and can select from several options:

	· Shop on the Web · Wire Anyone · Pay Anyone · Fund Wallet · Pay Bills · Check Receipts from Wallet Activity
4	User selects "Wire Anyone". User is given several options in the Wire Anyone menu screen: Does the payee already have a Wallet? Yes: (see pay anyone model 2A) No: User is prompted with an account setup screen and asked "Would you like to buy a Wallet?" If Yes, user is prompted to provide the following: · Name of account owner · Proposed Password User keys in requested info, the information is validated, and an IPA account is established. User then keys in the $ amount to wire.
5	A Payment confirmation is generated with the following data: · Payee BIN · Payee IPA # · Transaction ID · $ Amount The user selects "OK to Pay"

6	Wallet sends transaction to payee's IPA account, and the account is now funded
7	The Payee can withdraw the funds via an ATM through the use of the IPA and PIN established by the Payor. When the withdrawal is requested, a payment message is transmitted from the Payor's IPA account to the ATM provider bank.
8	Payee now has immediate use of funds, and the withdrawal is made.
9	Funds are settled once a day between Payee's bank's DDA and the DDA of the ATM provider bank.

Turning to Figure 10, Model #3A - Bill Payment-Direct: There are three different bill payment methods described in this document. The first method is the direct model. In this model a biller establishes an e-billing capability on its own web site. Once enrolled in the service, the customer will receive an e-mail notification that a bill is available for payment at the biller's web site. The customer will launch the Wallet from the browser and then access the biller's web site. A payment will then be transmitted from the Wallet to the biller's Virtual Private Lockbox. As in the other models, the transaction is secure, protects the customer's privacy, and provides the biller with guaranteed funding, reconcilement, and archival records. The following further describes the enumerated steps illustrated in Figure 10.

Step #	Description
	Establishing e-billing relationship

1	Merchant advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service at biller's web site. After enrollment, user will receive monthly email notification when bills are available.
	Using the Wallet
3	User launches browser and selects Wallet icon from browser toolbar. User keys in user id and password. The user is authenticated and has access to their Wallet.
4	User is then presented with balance information and can select from several options: · Shop on the Web · Pay Anyone · Pay Bills
	User selects "Pay Bills". User is given several options in the Pay Bills menu screen: · Pay Bills · Edit Billing information (i.e. name and address) User selects "pay bills" and navigates to biller's web site (Wallet will already contain user's billing info)
5	Since web Wallet is active, biller's website recognizes user as a Wallet customer. In addition, biller's website verifies that customer has an established e-billing relationship.
6	Biller site generates and transmits to user a bill payment message providing the following data:

	· Biller's BIN · Biller's Account # · Transaction ID · $ Amount
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".
8	Wallet verifies balance and passes transaction to IPA/DDA account; payment conformation sent to the Biller's website.
9	Bill payment message is passed from user's bank's IPA/DDA to the biller's VPL via the ATM switch.
10	The bill payment record is transmitted from the biller's VPL to the biller's VPL reporter (virtual private lockbox reporter).
11	Upon receipt of these guaranteed funds, biller's payment record is reconciled against the biller's accounts receivable files. With VPL reporter, Merchant has a product that allows for secure transaction fulfilment, reconcilement ability, record-keeping and archive possibilities.
12	Funds are settled once a day between user's bank's DDA and biller's bank's DDA.
13	Funds can be swept to biller's DDA or cash concentration bank.

With reference to Figure 11, Model #3B - Bill Payment- Service Provider Consolidation: The second bill payment method is similar to the

first, however in this model a central service provider consolidates e-bills from different billers, so that the customer has a single web site for reviewing bills and making payments. The service provider can be seamlessly outfitted with archival capability, so that customers can review their bill payment history. The Wallet provides the consumer with privacy, security and convenience. The Virtual Private Lockbox provides Merchants receiving payments through this web site guaranteed funding, reconcilement and archival records. The following further describes the enumerated steps illustrated in Figure 11.

Step #	Description
	Establishing e-billing relationship
1	Customer Service Provider (CSP) advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service at CSP's web site, and selects which bills it wishes to receive. After enrollment, user will receive monthly email notification when bills are available.
	Using the Wallet
3	User launches browser and selects Wallet icon from browser toolbar. User keys in user id and password. The user is authenticated and has access to their Wallet.
4	User is then presented with balance information and can select from several options: · Shop on the Web · Pay Anyone · Pay Bills

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	User selects "Pay Bills". User is given several options in the Pay Bills menu screen: · Pay Bills · Edit Billing information (i.e. name and address) · Review Billing History User selects "pay bills" and navigates to CSP's
5	Since web Wallet is active, CSP's website recognizes user as a Wallet customer. In addition, CSP's website verifies that customer has an established e-billing relationship.
6	User selects which bills to pay, and keys in $ amount. CSP site generates and transmits to user a bill payment message providing: · CSP's BIN · CSP's Account # · Transaction ID
7	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".
8	Wallet verifies balance and passes transaction to IPA/DDA account; bill payment expected record is transmitted to the CSP's website.
9	Bill payment message is passed from user's bank's IPA/DDA to the CSP's VPL via the ATM switch.
10	The bill payment record is transmitted from the CSP's VPL (virtual private lockbox) to the CSP's VPL reporter.
11	Upon receipt of these guaranteed funds, CSP's payment record is reconciled against the CSP's accounts receivable file. With VPL reporter, Merchant has a product that

	allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
12	Funds are settled once a day between user's bank's DDA and billers' bank's DDA.
13	Funds can be swept to billers' cash concentration bank.
14	Note: Multiple record keeping models can be supported. The billers can push billing info. directly to the CSP's web site, or alternatively, bills can be channeled to the CSP via Spectrum.
15	Note: CSP can be outfitted with an archive to store transaction history as well as a customer service unit to resolve transaction inquiries.

With reference to Figure 12, Model #3C - Bill Payment- Customer Consolidation: In the third bill payment method, the e-bills are delivered directly to the customer in the form of an e-mail. Each e-bill contains a hotlink, which directs the customer to the biller's web site. When the customer activates the Wallet, the web site recognizes the Wallet customer and initiates a payment message. The customer can then push the payment to the biller in the same manner that a payment is pushed in the web model, pay anyone model, and two other bill models. As in the two previous models, the merchant receives the guaranteed funding, reconcilement, and archival records benefits of the Virtual Private Lockbox product. The following further describes the enumerated steps illustrated in Figure 12

Step #	Description
	Establishing e-billing relationship
1	Biller advertises e-billing service via e-mail, mail, or web.
2	User enrolls in e-bill service by clicking on "sign me up!" hotlink in email, which launches browser and auto-directs user to biller's web site. After enrollment, user will receive bills directly in their email box.
	Using the Wallet
3	User logs on to email and receives an e-bill. User clicks on payment hotlink in email, which launches browser and auto-directs user to billers web site. User selects Wallet icon from browser toolbar. User keys in user id and password. The user is authenticated and has access to their Wallet.
4	Since web Wallet is active, biller's website recognizes user as a Wallet customer. In addition, biller's website verifies that customer has an established e-billing relationship.
5	User keys in $ amount to pay. Biller's site generates and transmits to user a bill payment message providing the following data: · Biller's BIN · Biller's Account # · Transaction ID · $ Amount
6	Bill Payment message is transmitted back to Wallet window. User reviews bill payment message and selects "pay bill".

7	Wallet verifies balance and passes transaction to IPA/DDA account; a bill payment expected record is transmitted to the Biller's website
8	Bill payment message is passed from user's bank's IPA/DDA to the biller's VPL via the ATM switch.
9	The bill payment record is transmitted from the biller's VPL to the biller's VPL reporter.
10	Upon receipt of these guaranteed funds, biller's payment record is reconciled against the biller's accounts receivable file. With VPL reporter, Merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities.
11	Funds are settled once a day between user's bank's DDA and billers' bank's DDA.
12	Funds can be swept to biller's cash concentration bank or DDA.

With reference to Figure 13, Funding the Wallet - The Internet Pay Anyone (IPA) account is accessed through a virtual Wallet. This Wallet can be accessed via the Internet, ATM, telephone, Kiosk, and even a personal digital assistant. The primary method for funding the Wallet is through the Wallet owner's DDA, credit, and savings accounts, which can be linked to the Wallet through Online Banking. Alternative funding options are by an externally sponsored credit card, by check or money order, or through the ACH network. The following further describes the enumerated steps illustrated in Figure 13.

Step #	Description
	Installing the Wallet
1	User goes to mybank.com via PC. User selects the Wallet option from main menu. There are two options: · Are you an Online Banking customer? · Are you a Non-Chase customer?
2	If user selects Online Banking customer, their Wallet will be linked to DDA account or IPA account. If user selects Non-Chase bank customer, the software will open a new IPA account and corresponding VPL account to enable Wallet functionality.
3	Next the user sets up a web Wallet for use by choosing Install a Web Wallet from the menu. Screen instructs user that web Wallet will now be installed as a button on the browser toolbar. Once installed, user is prompted to provide some background information that will assist in web purchases and payments: examples include: shipping name, shipping address, and other optional information.
	Funding the Wallet
4	For the Chase customer, the primary method for initial and future funding of Wallet is performed through a link between the Wallet and Online Banking. For initial funding of the Wallet, the user will select "move funds to/from Wallet" from online banking menu. User selects "move funds to Wallet", and provides the following:

	· Source of funds- checking, credit card, savings, etc. · $ amount · funding date · one time or repeat Upon completion of above, the Wallet is funded (subsequent funding of the Wallet can be done via both the Wallet or directly within Online Banking).
5	In addition to funding via online banking, instructions can be given for funding via phone, ATM, kiosk, or PDA.
	Funding the Wallet from an external credit or debit card, or DDA account
6	For the Non-Chase customer or a Chase customer wishing to fund Wallet externally, user selects "fund with a non-[my bank] account". User selects the financial merchant (AMEX, VISA, or other bank DDA with debit card functionality) and keys in account number, expiration (if applic.), and $ amount, and a funding request is transmitted to merchant acquirer (this account info will be stored for future funding requests).
7	Merchant Acquirer (such as Chase Merchant Svcs) authorizes the transaction and passes the request through the EFT switch.
8	Financial merchant receives funding request via EFT switch, and verifies card number, expiration, and credit limit.
9	Funding is authorized by financial merchant
10	Funding is received by Wallet, which is an IPA (Internet Pay Anyone) account or DDA account.

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11	Funds are settled once a day between credit card's bank and user's bank's IPA or DDA.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

We claim:

1. A method for effectuating an electronic payment between a payor and a payee, the payor having a payor account at a payor bank and the payee having a payee account at a payee bank, the method comprising the steps of:

generating a payment request identifying the payee bank, the payee account and an amount of the payment;

transmitting the payment request to the payor bank;

debiting the payor account by the amount of the payment;

transmitting a transaction instruction representing a credit in the amount of the payment from the payor bank, through an Automated Teller Machine (ATM) system to the payee bank; and

crediting the payee account in the amount of the payment in response to the receipt of the transaction instruction.

2. The method as recited in claim 1, further comprising the step of retrieving payee information that identifies the payee bank and the payee account.

3. The method as recited in claim 2, wherein the retrieving step further comprises the step of retrieving the payee information from an Internet web site.

4. The method as recited in claim 3, wherein the retrieving step is automatic.

5. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request through the Internet.

6. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using a personal computer.

7. The method as recited in claim 5, wherein the step of transmitting the payment request to the payor bank is accomplished by using am Internet enabled ATM machine.

8. The method as recited in claim 1, wherein the step of transmitting the payment request to the payor bank further comprises the step of transmitting the payment request by telephone.

9. The method as recited in claim 1, further comprising the step of transmitting a guarantee of the payment from the payor bank to the payee.

10. The method as recited in claim 9, wherein the transmittal of the guarantee is directly to the payee.

11. The method as recited in claim 9, wherein the transmittal of the guarantee is from the payor bank to the payor to the payee.

12. The method as recited in claim 9, further comprising the step of the payor bank digitally signing the guarantee.

13. The method as recited in claim 1, wherein the payee account is a deposit only account.

14. The method as recited in claim 1, wherein the payee is a billing company, the payor is a customer of the billing company and the payment is in response to a bill from the billing company.

15. The method as recited in claim 14, further comprising the step of receiving the bill electronically.

16. The method as recited in claim 15, wherein bill is electronically received via E-mail.

17. The method as recited in claim 15, wherein bill is electronically received from an Internet site.

18. The method as recited in claim 14, further comprising the step of receiving a template containing at least information identifying the payee bank and payee account .

19. The method as recited in claim 18, further comprising the steps of: inserting into the template the amount of the payment; and

generating the payment request in response to the information contained in the template .

20. A method for effectuating electronic payments for online purchases made by a consumer from a merchant, the method comprising the steps of:

retrieving from an Internet site of the merchant a purchase amount and merchant information identifying a merchant's financial institution and a merchant's account;

forming a payment request including the purchase amount and the merchant information;

transmitting the payment request to a financial institution at which the consumer maintains an account;

debiting the consumer's account by the purchase amount;

generating a payment instruction for crediting the merchant's account by the purchase amount

transmitting the payment instruction to the merchant's financial institution through an Automated Teller Machine (ATM); and

crediting the merchant's account by the purchase amount.

21. The method as recited in claim 20, wherein the retrieving step is automatic.

22. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request through the Internet.

23. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumers's financial institution is accomplished by using a personal computer.

24. The method as recited in claim 22, wherein the step of transmitting the payment request to the consumer's financial institution is accomplished by using am Internet enabled ATM machine.

25. The method as recited in claim 20, wherein the step of transmitting the payment request to the consumer's financial institution further comprises the step of transmitting the payment request by telephone.

26. The method as recited in claim 20, further comprising the steps of:

generating a payment advice guaranteeing the payment amount will be credited to the merchant's account; and

transmitting the payment advice to the merchant.

27. The method as recited in claim 26, wherein the transmittal of the guarantee is directly to the merchant.

28. The method as recited in claim 27, wherein the transmittal of the guarantee is made using a different Internet Protocol (IP) address from the IP address used by the consumer to view the merchant's Internet site.

29. The method as recited in claim 26, wherein the transmittal of the guarantee is from the consumer's financial institution to the consumer to the merchant.

30. The method as recited in claim 26, further comprising the step of the payor bank digitally signing the guarantee.

31. The method as recited in claim 20, wherein the merchant's account is a deposit only account.

32. The method as recited in claim 20, wherein the consumer's account is a demand deposit account.

33. The method as recited in claim 20, wherein the consumer's account is an account only used for making payments using the method of the present invention.

34. The method as recited in claim 20, wherein the consumer's account is funded from a different account maintained by the consumer.

35. The method as recited in claim 34, wherein the different account is a demand deposit account.

ABSTRACT OF THE INVENTION

A method for effectuating electronic payments more specifically for making electronic payments for Internet purchases. Upon finding an item which it wishes to purchase on an Internet retailer's web site, a consumer using its Internet software extracts from the web site a price quote for the proposed purchase along with an identification of the merchant's bank and account number. The customer transmits a payment request message to its own bank over the Internet. This payment request message simultaneously requests that the consumer's account be debited for the amount of the price quote and that the payment be made crediting the merchants account at the merchants bank. The consumer's bank generates a payment advice that guarantees the payment. The payment advice is transmitted to the merchant. With guaranteed funding, the merchant can immediately deliver the goods of services to the consumer. The customer's bank credits the merchant's account using the regional ATM network infrastructure.

SCOTT'S 2363705

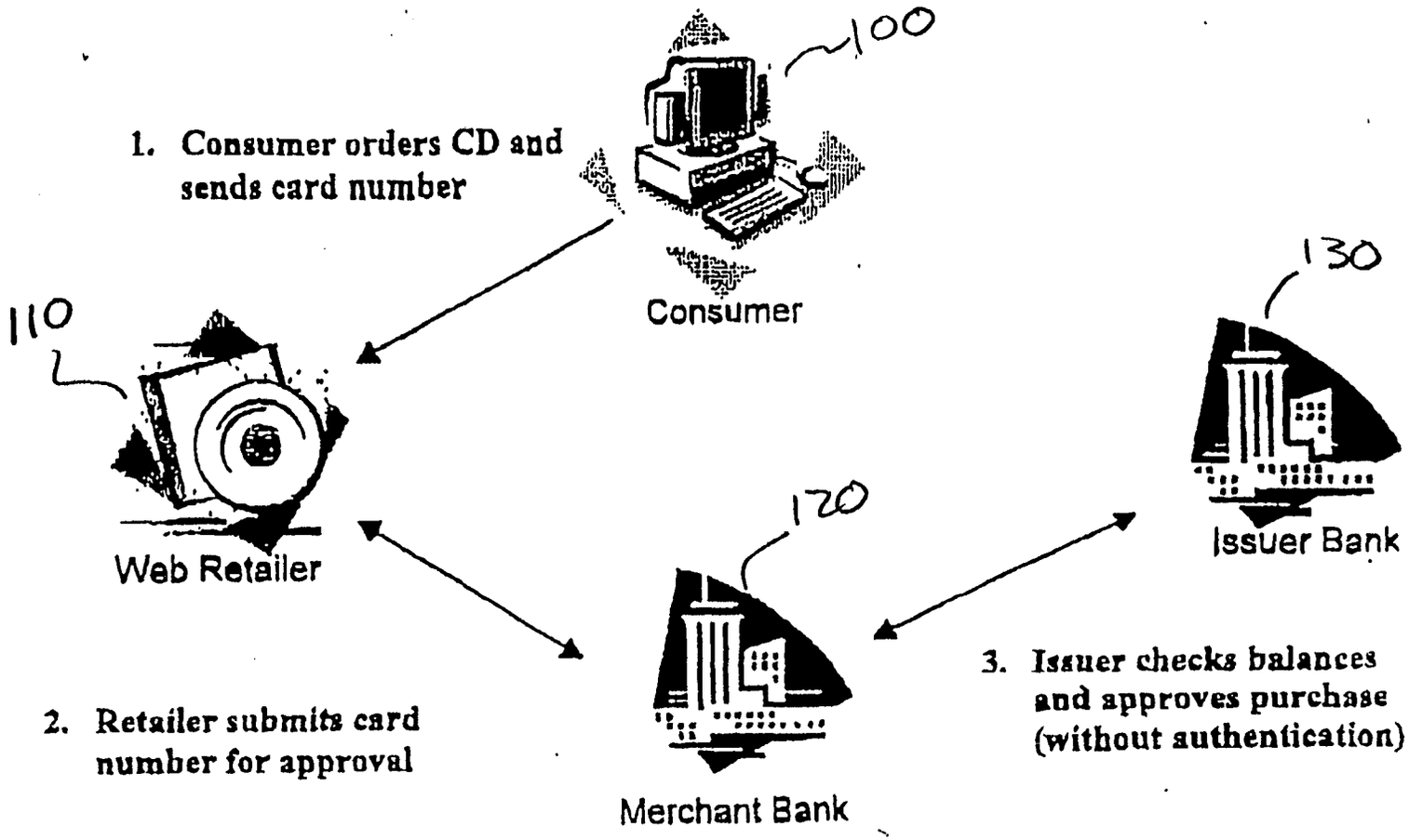


FIG. 1
PRIOR ART

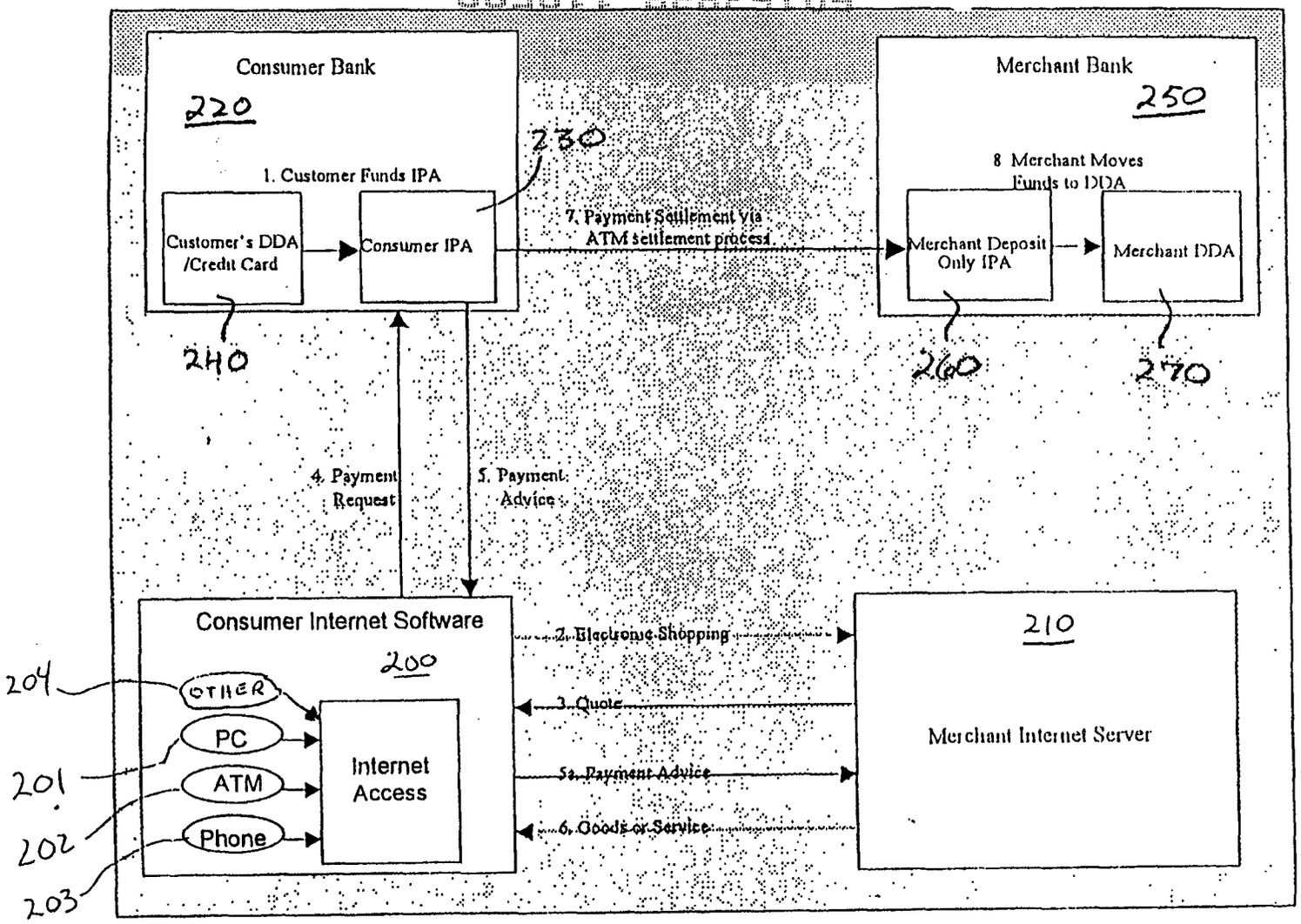

Consumer Bank
220
1. Customer Funds IPA
230
Customer's DDA /Credit Card
Consumer IPA
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8 Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
240
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
210
2. Electronic Shopping
3. Quote
5a. Payment Advice
6. Goods or Service
Merchant Internet Server
204
OTHER
PC
ATM
Phone
Internet Access
201
202
203

FIG. 2

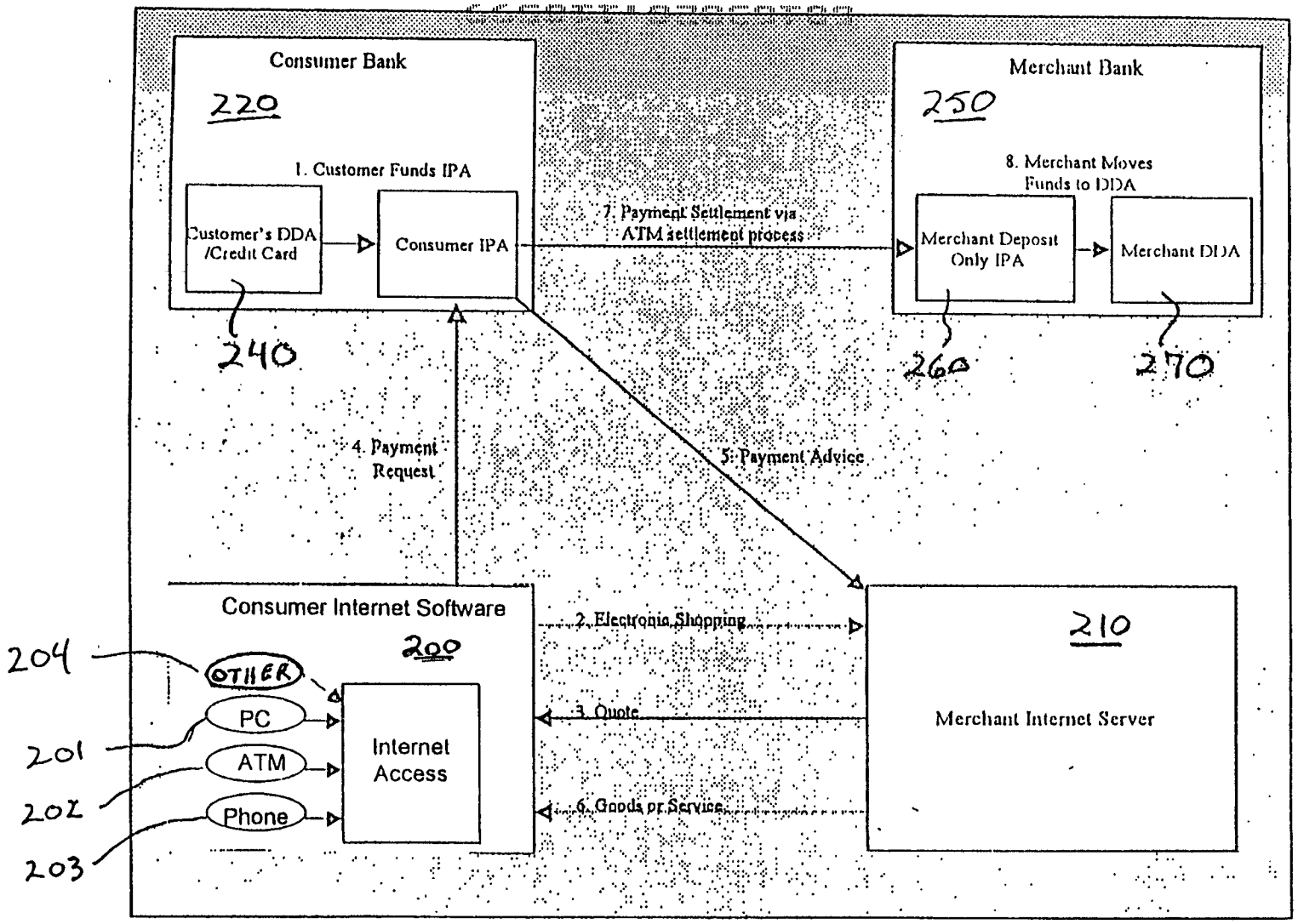

Consumer Bank
220
1. Customer Funds IPA
Customer's DDA /Credit Card
Consumer IPA
240
7. Payment Settlement via ATM settlement process
Merchant Bank
250
8. Merchant Moves Funds to DDA
Merchant Deposit Only IPA
Merchant DDA
260
270
4. Payment Request
5. Payment Advice
Consumer Internet Software
200
204
OTHER
PC
201
ATM
202
Phone
203
Internet Access
2. Electronic Shopping
3. Quote
6. Goods or Service
210
Merchant Internet Server

FIG. 3

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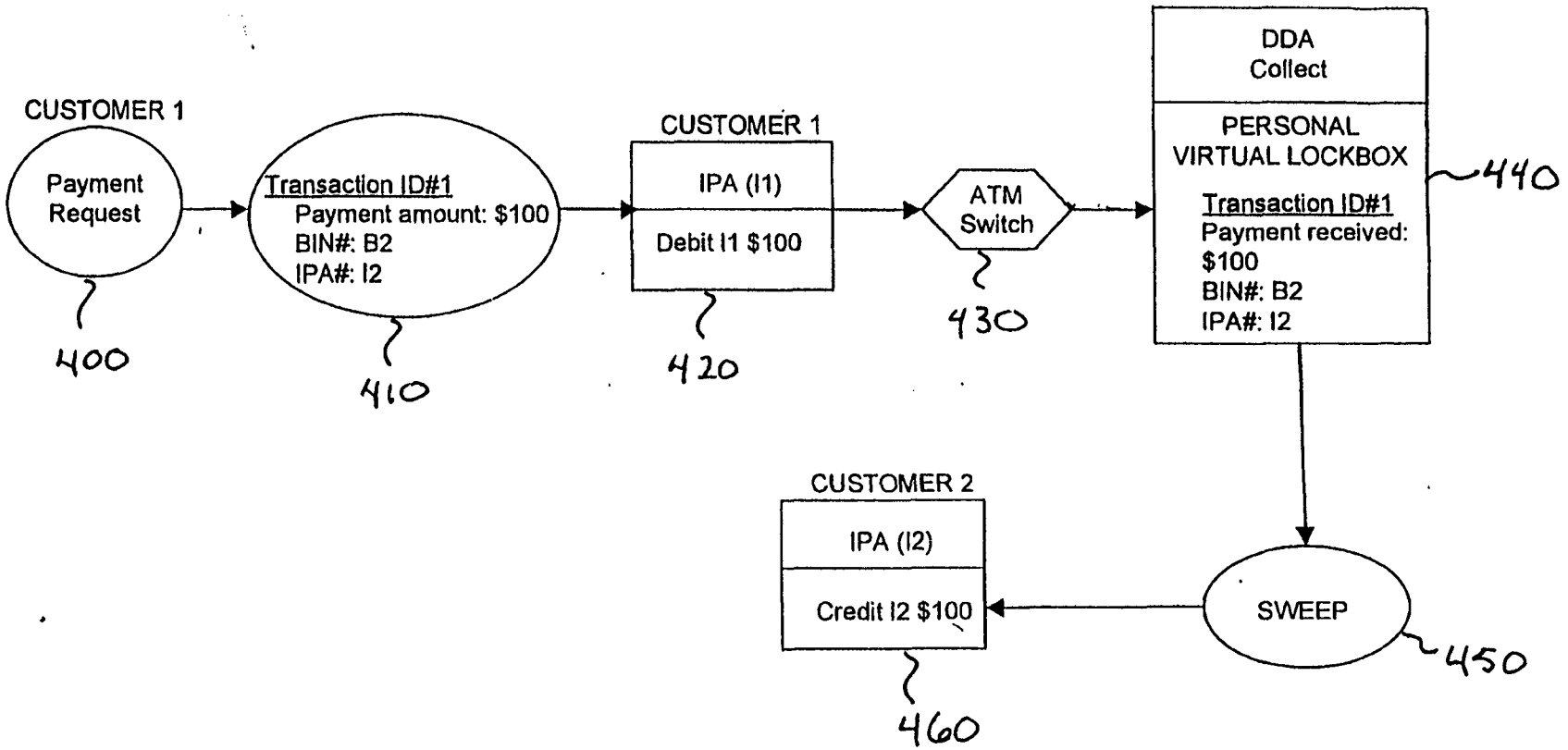


FIG. 4

6650TT"8286908

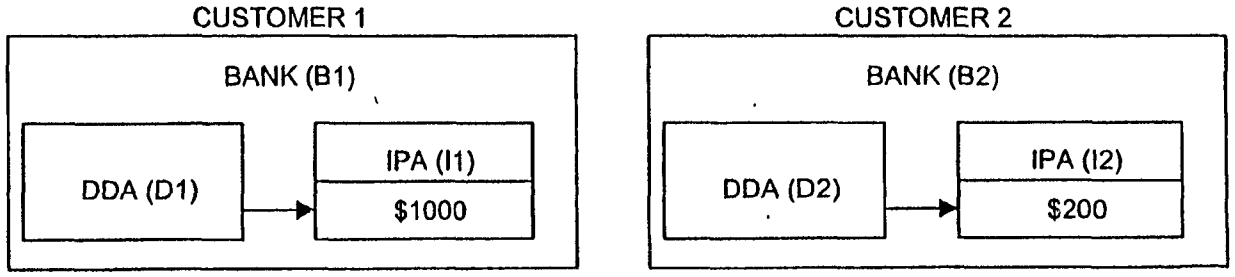
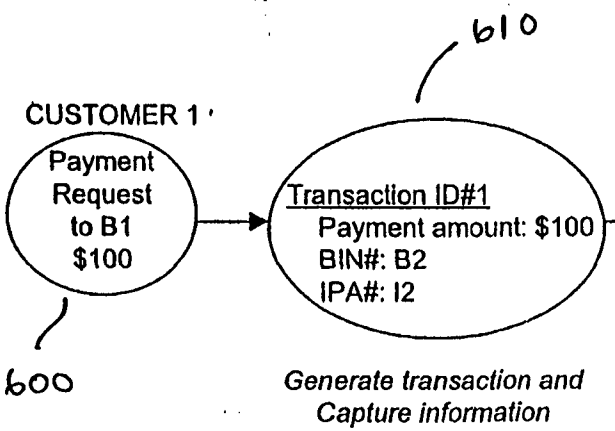


FIG. 5


610
CUSTOMER 1
Payment Request to B1 $100
Transaction ID#1
Payment amount: $100
BIN#: B2
IPA#: I2
600
Generate transaction and Capture information

TT' 9229TO9

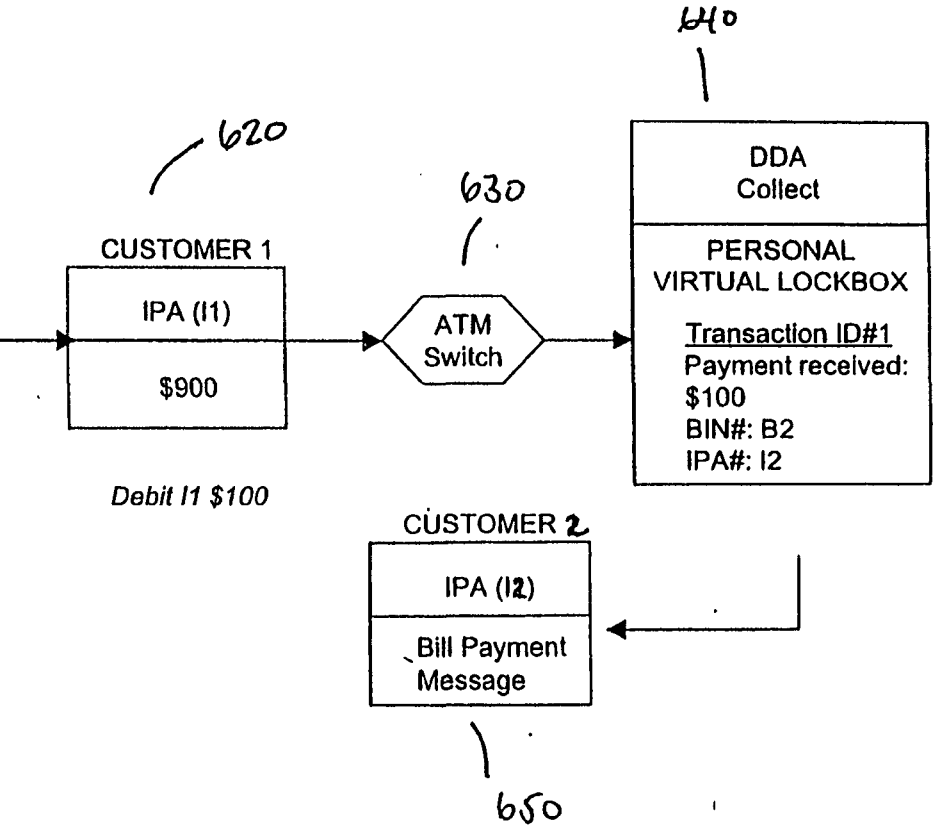


Fig. 6.

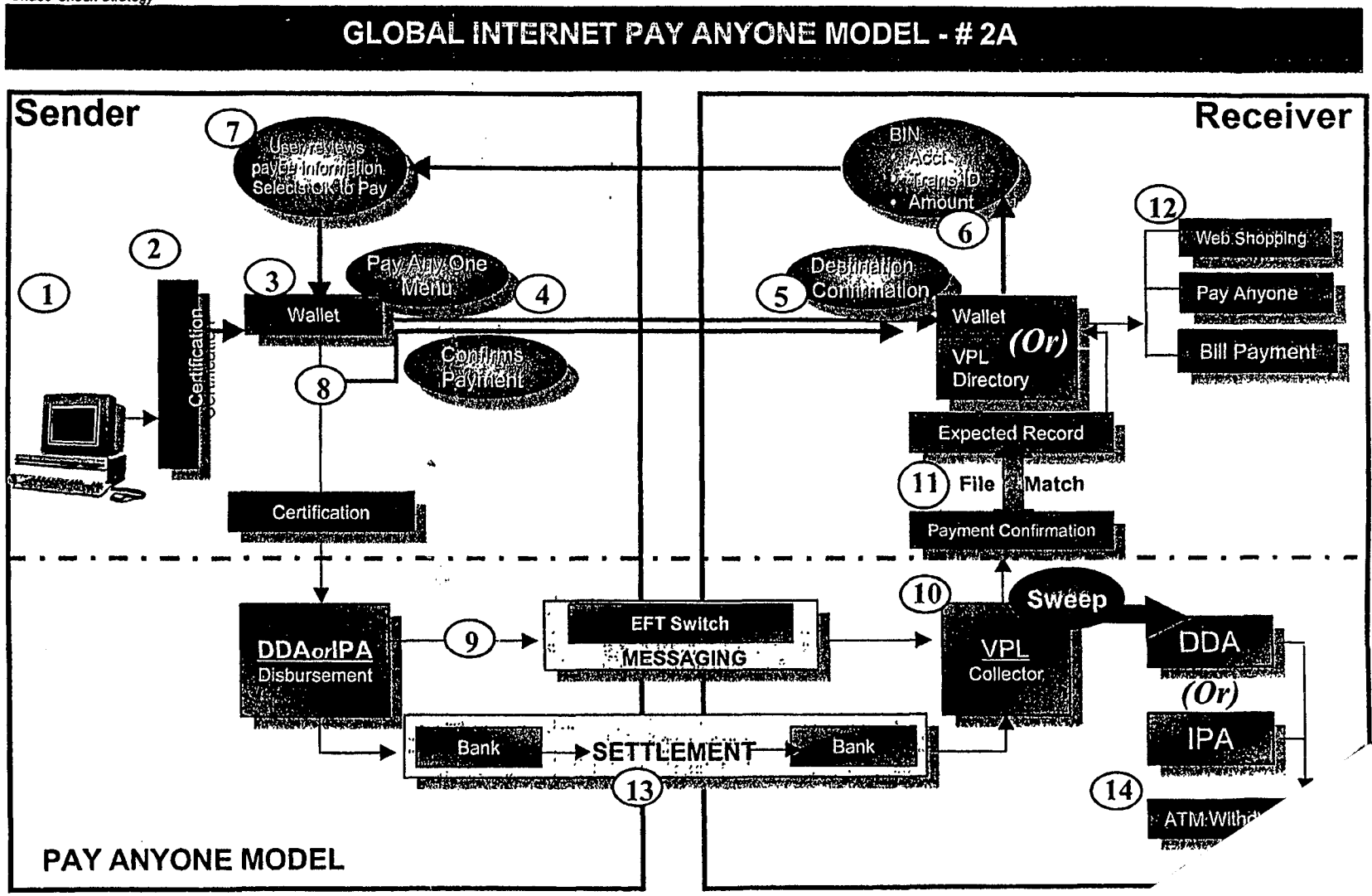

GLOBAL INTERNET PAY ANYONE MODEL - # 2A
Sender
Receiver
7
User reviews payee information Selects bank to Pay
BIN
Acct #
Trans ID
Amount
6
12
Web Shopping
Pay Anyone
Bill Payment
2
1
3
Pay Any One Menu
4
Destination Confirmation
5
Wallet
Wallet
VPL
(Or)
Directory
Confirms Payment
8
Certification
Expected Record
11
File
Match
Payment Confirmation
Certification
10
Sweep
DDAorIPA
Disbursement
9
EFT Switch
MESSAGING
VPL
Collector
DDA
(Or)
IPA
Bank
SETTLEMENT
Bank
13
14
ATM Withd
PAY ANYONE MODEL

FIG. 8

S6SOTT*828E9T09

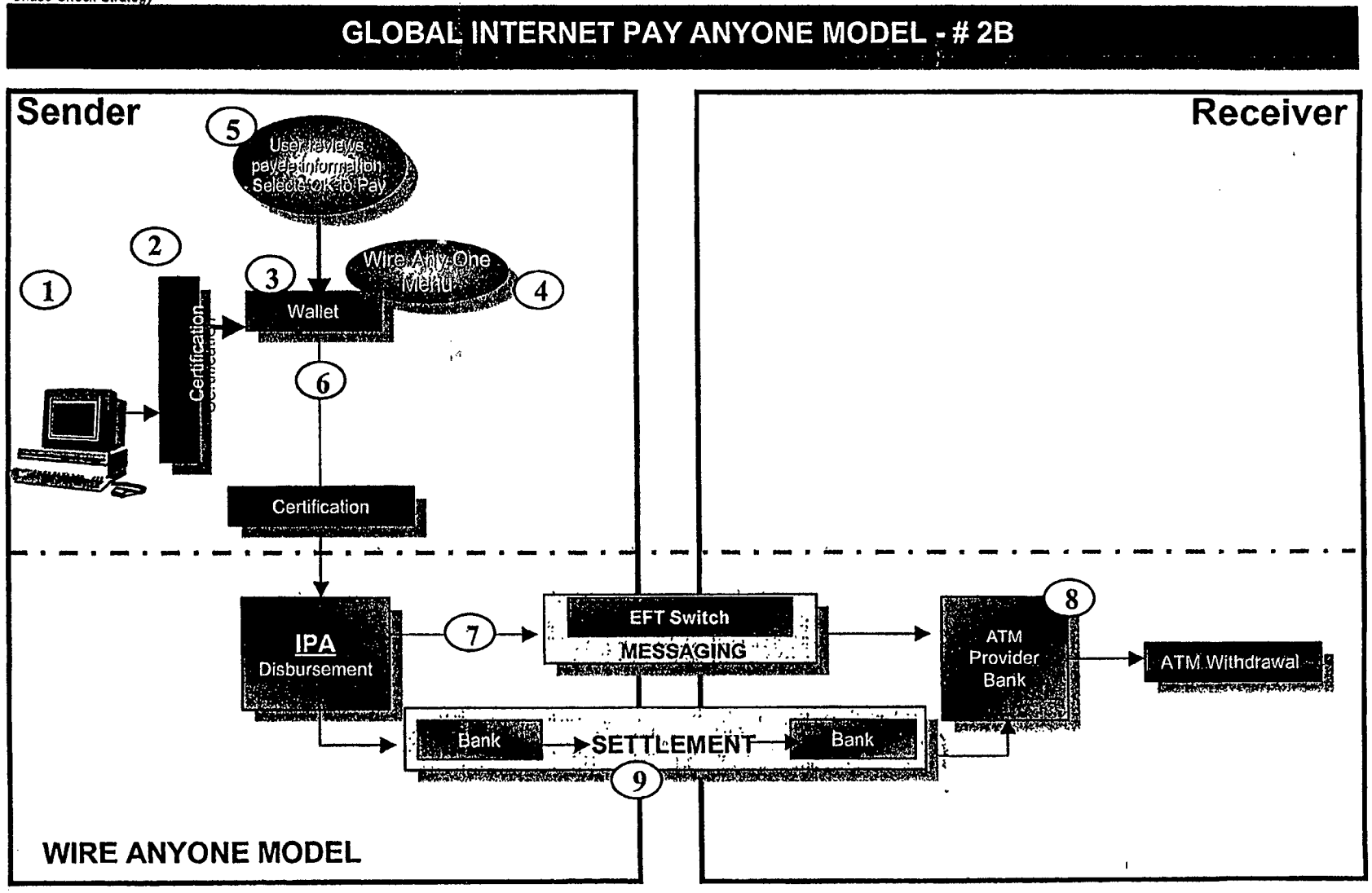


FIG. 9

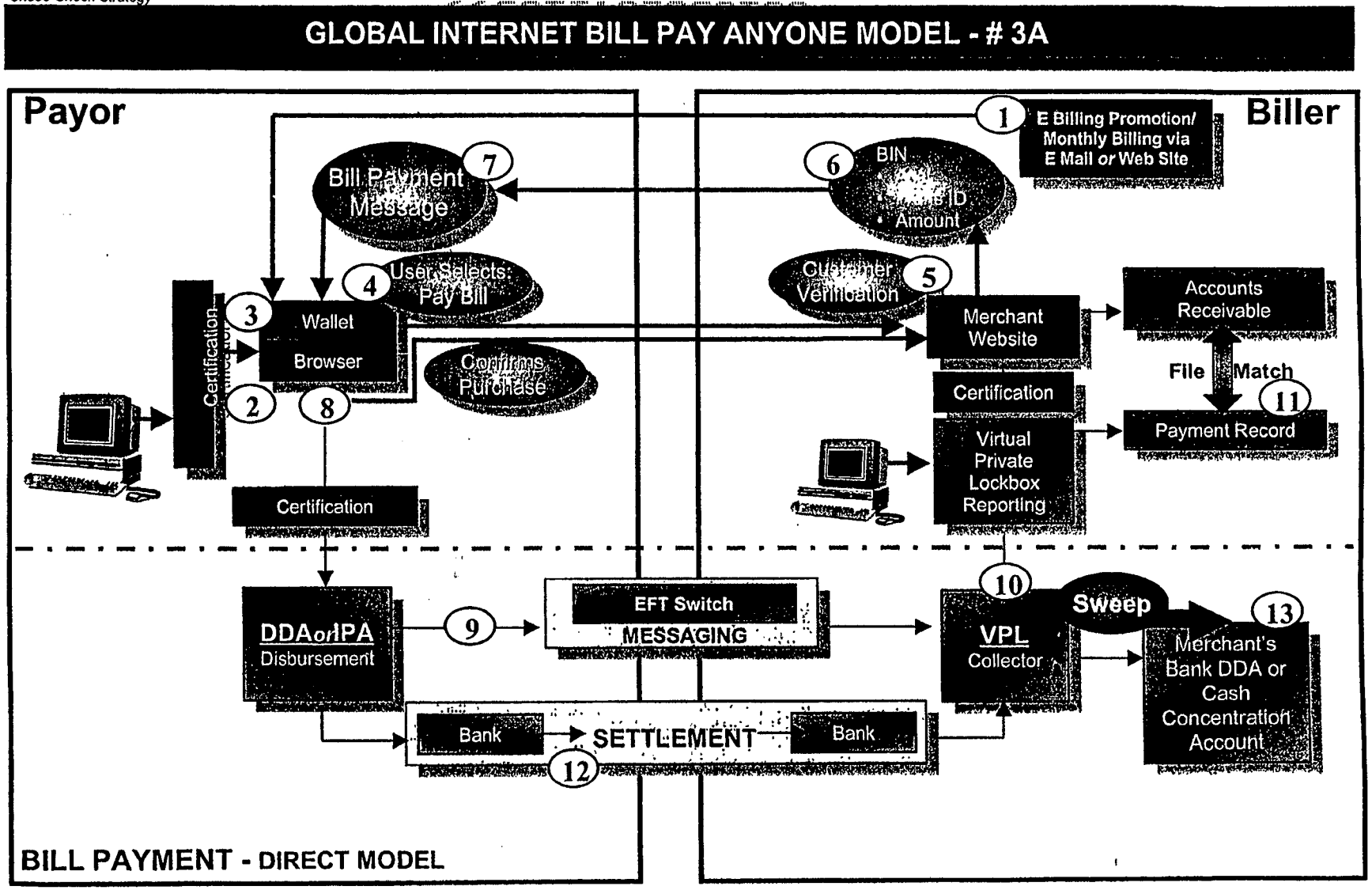

GLOBAL INTERNET BILL PAY ANYONE MODEL - # 3A
Payor
Biller
1
E Billing Promotion/ Monthly Billing via E Mail or Web Site
6
BIN
Amount
7
Bill Payment Message
4
User Selects Pay Bill
5
Customer Verification
3
Wallet
Browser
Certification
2
8
Confirms Purchase
Merchant Website
Accounts Receivable
File
Match
11
Payment Record
Certification
Virtual Private Lockbox Reporting
Certification
10
Sweep
13
DDAorIPA
Disbursement
9
EFT Switch
MESSAGING
VPL
Collector
Merchant's Bank DDA or Cash Concentration Account
Bank
SETTLEMENT
Bank
12
BILL PAYMENT - DIRECT MODEL

FIG. 10

GLOBAL INTERNET BILL PAY ANYONE MODEL - # 3B

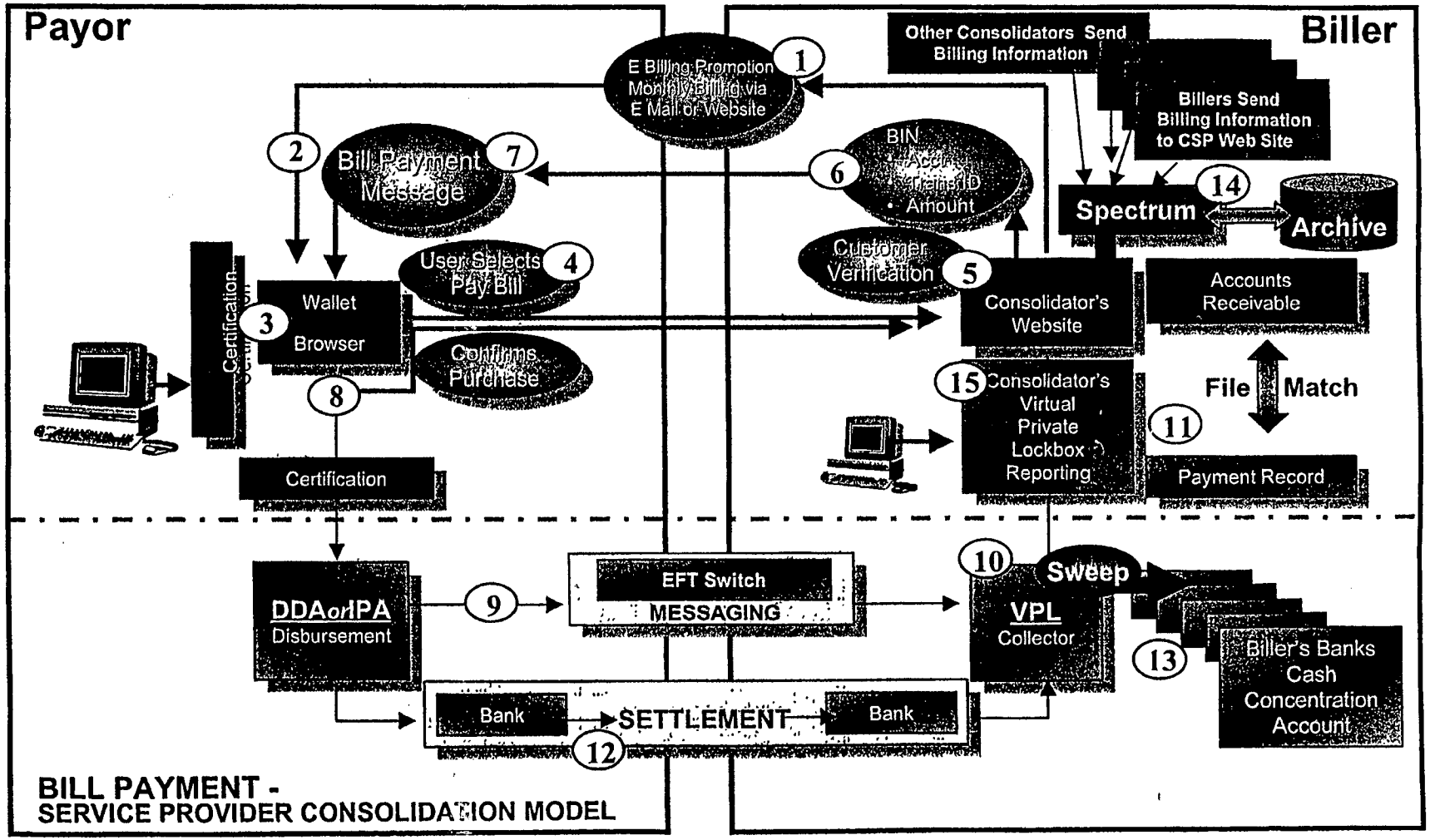


FIG. 11

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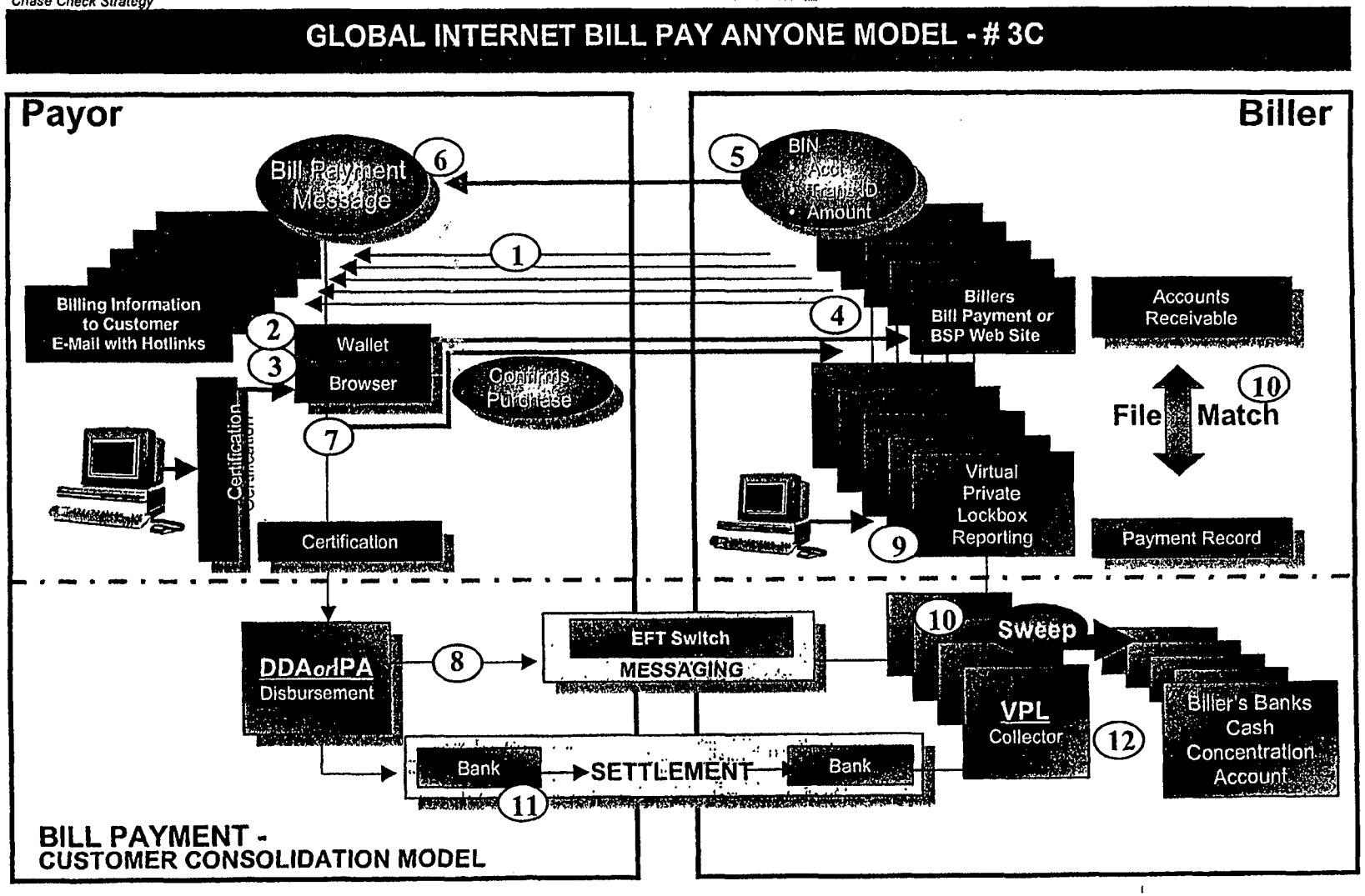


FIG. 12

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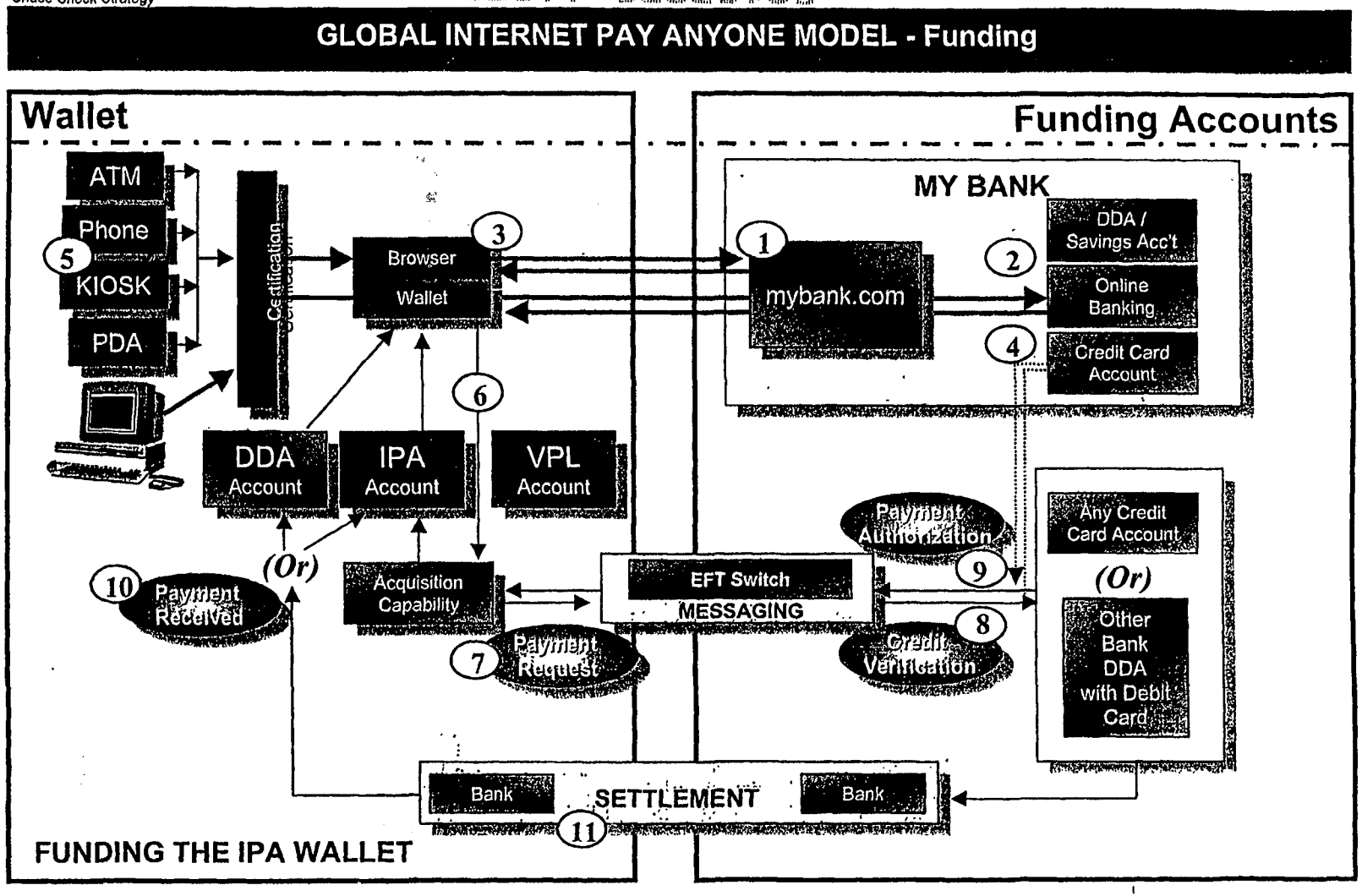


FIG. 13

A COVERBIND® COVER 1-800-366-6060
3/8" PTO 1683-4 for 61 to 90 sheets

379

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Oficina de Patentes y Marcas de los Estados Unidos

Mayo 17, 2000

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HILDA AGUILERA DE PIEDRAHITA
INTERPRETE OFICIAL
RES No 323 DEL MIN. DE JUSTICIA

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ANEXOS DE LA SOLICITUD *(indique todos los que correspondan)*

Especificación 43 páginas Dibujo(s) 13 Hojas Declaración de entidad pequeña

Otros (especifique)

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No Sí, La Agencia y el número de contrato con el Gobierno son:_____

(espacio en blanco)

Respetuosamente presentado,

FIRMA (Firmado) Fecha

NOMBRE EN LETRA IMPRENTA Michael J. Scheer No. REGISTRO

Inventores adicionales se nombran en hojas numeradas por separado y adjuntas a la presente.

00427512.1

(En la esquina inferior izquierda de todas las páginas aparece el número 00427400.1)

Reivindicamos:

1. Un método para realizar un pago electrónico entre el pagador y el beneficiario, el pagador teniendo una cuenta de pagador en un banco pagador y el beneficiario teniendo una cuenta de beneficiario en un banco beneficiario, el método incluye los pasos de:

generar una solicitud de pago identificando el banco beneficiario, la cuenta del beneficiario y el monto del pago;

transmitir la solicitud de pago al banco pagador;

debitar el monto del pago de la cuenta del pagador;

transmitir una instrucción de transacción que representa un crédito por el monto del pago desde el banco pagador, a través de un sistema de Máquina de Cajero Automatizado (ATM por su sigla en inglés), al banco beneficiario; y

acreditar a la cuenta del beneficiario el monto del pago en respuesta al recibo de la instrucción de transacción.

2. El método presentado en la reivindicación 1, además incluyendo el paso de recuperar la información que identifica el banco beneficiario y la cuenta del beneficiario.

3. El método presentado en la reivindicación 2, donde el paso de

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INTERPRETE OFICIAL
RES No 323 DEL MIN. DE HISTORIA

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recuperar además incluye el paso de recuperar la información del beneficiario desde un sitio de la red Internet.

4. El método presentado en la reivindicación 3 donde el paso de recuperación es automático.

5. El método presentado en la reivindicación 1, donde el paso de transmitir la solicitud de pago al banco pagador además incluye el paso de transmitir la solicitud de pago a través de la Internet.

6. El método presentado en la reivindicación 5, , donde el paso de transmitir la solicitud de pago al banco pagador se realiza usando un computador personal.

7. El método presentado en la reivindicación 5, donde el paso de transmitir la solicitud de pago al banco pagador se realiza usando una máquina ATM habilitada para Internet.

8. El método presentado en la reivindicación 1, donde el paso de transmitir la solicitud de pago al banco pagador incluye además el paso de transmitir la solicitud de pago por teléfono.

9. El método presentado en la reivindicación 1, incluyendo además el paso de transmitir una garantía del pago desde el banco pagador al beneficiario.

10. El método presentado en la reivindicación 9 donde la transmisión de la garantía se hace directamente al beneficiario.

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11. El método presentado en la reivindicación 9 donde la transmisión de la garantía es desde el banco pagador al pagador al beneficiario.

12. El método presentado en la reivindicación 9, incluyendo además el paso de la firma digital de la garantía por el banco pagador.

13. El método presentado en la reivindicación 1, donde la cuenta del beneficiario es una cuenta únicamente para depósito.

14. El método presentado en la reivindicación 1, donde el beneficiario es una compañía que factura, el pagador es un cliente de la compañía que factura y el pago se hace en respuesta a una factura de la compañía que factura.

15. El método presentado en la reivindicación 14, incluyendo además el paso de recibir la factura electrónicamente.

16. El método presentado en la reivindicación 15, donde la factura se recibe por vía de correo electrónico (E-mail).

17. El método presentado en la reivindicación 15, donde la factura se recibe desde un sitio de Internet.

18. El método presentado en la reivindicación 14, incluyendo además el paso de recibir una plantilla que contiene por lo menos aquella información que identifique el banco beneficiario y la cuenta del beneficiario.

19. El método presentado en la reivindicación 18, incluyendo además los pasos de:

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insertar dentro de la plantilla el monto del pago; y

generar la solicitud de pago en respuesta a la información contenida en la plantilla.

20. Un método para realizar pagos electrónicos para compras en línea hechas por un consumidor a un comerciante, el método incluye los pasos de:

recuperar desde un sitio de Internet de un comerciante, un monto de compra y la información del comerciante que identifica la institución financiera del comerciante y una cuenta del comerciante;

elaborar una solicitud de pago que incluye el monto de la compra y la información del comerciante;

transmitir la solicitud de pago a la institución financiera en la cual el consumidor mantiene una cuenta;

debitar el monto de la compra de la cuenta del consumidor;

generar una instrucción de pago para acreditar el monto de la compra a la cuenta del comerciante;

transmitir la instrucción de pago a la institución financiera del comerciante a través de una Máquina de Cajero Automatizado (ATM por su sigla en inglés); y

acreditar a la cuenta del comerciante el monto de la compra.

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21. El método presentado en la reivindicación 20, donde el paso de recuperación es automático.

22. El método presentado en la reivindicación 20 donde el paso de transmitir la solicitud de pago a la institución financiera del consumidor incluye además el paso de transmitir la solicitud de pago a través de Internet.

23. El método presentado en la reivindicación 22, donde el paso de transmitir la solicitud de pago a la institución financiera del consumidor se realiza usando un computador personal.

24. El método presentado en la reivindicación 22 donde el paso de transmitir la solicitud de pago a la institución financiera del consumidor se realiza usando una máquina ATM habilitada para Internet.

25. El método presentado en la reivindicación 20, donde el paso de transmitir la solicitud de pago a la institución financiera del consumidor incluye además el paso de trasmitir la solicitud de pago por teléfono.

26. El método presentado en la reivindicación 20, incluyendo además los pasos de:

generar un aviso de pago que garantiza que el monto del pago se acreditará a la cuenta del comerciante; y

transmitir el aviso de pago al comerciante.

27. El método presentado en la reivindicación 26, donde la transmisión de la garantía se hace directamente al comerciante.

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28. El método presentado en la reivindicación 27, donde la transmisión de la garantía se hace utilizando una dirección de Protocolo de Internet (IP) diferente de la dirección IP usada por el consumidor para visualizar el sitio Internet del comerciante.

29. El método presentado en la reivindicación 26, donde la transmisión de la garantía es desde la institución financiera del consumidor al consumidor al comerciante.

30. El método presentado en la reivindicación 26, incluyendo además el paso de la firma digital del banco pagador en la garantía.

31. El método presentado en la reivindicación 20, donde la cuenta del comerciante es una cuenta únicamente para depósito.

32. El método presentado en la reivindicación 20, donde la cuenta del consumidor es una cuenta únicamente de depósito a la vista.

33. El método presentado en la reivindicación 20, donde la cuenta del consumidor es una cuenta únicamente para utilizarse para hacer pagos usando el método de la presente invención.

34. El método presentado en la reivindicación 20, donde la cuenta del consumidor obtiene fondos de una cuenta diferente mantenida por el consumidor.

35. El método presentado en la reivindicación 34, donde la cuenta diferente es una cuenta de depósito a la vista.

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RESUMEN DE LA INVENCIÓN

Un método para realizar pagos electrónicos más específicamente para hacer pagos electrónicos para compras por Internet. Al encontrar un artículo que se quiere comprar en un sitio de un comerciante en Internet, un consumidor usando su programa de computador para Internet extrae del sitio en la red una precio cotizado para la compra propuesta junto con una identificación del banco del comerciante y número de cuenta. El cliente transmite un mensaje de solicitud de pago a su propio banco a través de Internet. Este mensaje de solicitud de pago simultáneamente solicita que se realice un débito de la cuenta del consumidor por el monto del precio cotizado y que el pago se haga mediante un crédito en la cuenta del comerciante en el banco del comerciante. El banco del consumidor genera un aviso de pago que garantiza dicho pago. El aviso de pago se transmite al comerciante. Con fondos garantizados el comerciante puede despachar los bienes o servicios de inmediato al consumidor. El banco del cliente acredita a la cuenta del comerciante usando la infraestructura regional de red ATM.

ES TRADUCCIÓN FIEL Y COMPLETA de la cual se deja copia en los archivos de esta oficina para su confrontación y a la cual me remito.

Santafé de Bogotá, Julio 27 del 2000.

TRADUCCIÓN OFICIAL No. 2000/145
MEDIA ANILLERA DE PIEDRANITA
INTÉRPRETE OFICIAL
RES NO. 323 DEL MIN. DE JUSTICIA

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PA 247128

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 17, 2000

THIS IS TO CERTIFY THAT ANNEXED HERETO IS A TRUE COPY FROM THE RECORDS OF THE UNITED STATES PATENT AND TRADEMARK OFFICE OF THOSE PAPERS OF THE BELOW IDENTIFIED PATENT APPLICATION THAT MET THE REQUIREMENTS TO BE GRANTED A FILING DATE UNDER 35 USC 111.

APPLICATION NUMBER: ***60/173,044***
FILING DATE: ***December 23, 1999***

By Authority of the
COMMISSIONER OF PATENTS AND TRADEMARKS

H. L. Jackson

H. L. JACKSON
Certifying Officer

12.27.99

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PROVISIONAL APPLICATION FOR PATENT COVER SHEET

This is a request for filing a **PROVISIONAL APPLICATION** under 37 CFR 1.53(b)(2).

Docket Number	PP/2167-156	Type a plus sign (+) inside this box -->	+

INVENTOR(s)/APPLICANT(s)

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TITLE OF THE INVENTION (*280 characters max*)

METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK

CORRESPONDENCE ADDRESS

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STATE	NY	ZIP CODE	10036	COUNTRY	U.S.A

ENCLOSED APPLICATION PARTS (*check all that apply*)

[X] Specification 45 Pages [X] Drawing(s) 9 Sheets [ ] Small Entity Statement

[ ] Other (specify)

METHOD OF PAYMENT

Our check No. 90459 is enclosed to cover the Provisional Application filing fee.

The Commissioner is hereby authorized to charge any additional or missing fee to Deposit Account Number. 15-0700

PROVISIONAL APPLICATION FILING FEE AMOUNT ($) 150.00

The invention was made by an agency of the United States Government or under a contract with an agency of the United States Government:

[X] No. [ ] Yes, Agency and Government contract number are: _____

Respectfully submitted,

SIGNATURE Michael J. Scheer Date 12/23/99

Michael J. Scheer

TYPED NAME _____ REGISTRATION NO. 34,425

[ ] Additional Inventors are being named on separately numbered sheets and attached hereto.

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EXPRESS MAIL CERTIFICATE

I hereby certify that this correspondence is being deposited with the United States Postal Service as Express Mail Post Office to Addressee (mail label #EL157100335US) in an envelope addressed to: Assistant Commissioner of Patents and Trademarks, Washington, D.C. 20231, on December 23, 1999

DOROTHY JENKINS

Name of Person Mailing Correspondence

Dorothy Jenkins

Signature

December 23, 1999

Date of Signature

DECLARATION

00434187 1

PP/2167-156

METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK

RELATED APPLICATION

This application is based on and claims priority to U.S. Provisional Patent Applications Nos.: 60/132,305, filed May 3, 1999; 60/150,725, filed August 25, 1999; 60/161,300, filed October 26, 1999; and 60/163,828, filed November 5, 1999 the entire disclosures of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to methods for process virtual cash and more particularly to a method by which a payor pushes electronic payments to a payee using an Electronic Funds Transfer system.

BACKGROUND OF THE INVENTION

Presently, there are several methods by which a consumer can electronically pay for purchases made on the Internet, such as credit cards, off-line debit cards, online debit cards, digital cash, and smart cards. Each of these methods has its own advantages and disadvantages. An off-line debit card uses the traditional credit card system for clearing the payment but no Personal Identification Number (PIN) is required. The use of an on-line debit

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card requires that the consumer supply his or her PIN, and the amount of the purchase is debited from the consumer's account instantaneously. One disadvantage with both the on and off-line debit cards, from a consumer's point of view, is the inability to reverse or repudiate the transaction. In contrast, by use of a credit card, the consumer at a later date can reverse the transaction (e.g., if the purchased goods are never shipped to the consumer).

It is predicted that credit cards will be the dominant on-line point of sale (POS) payment choice for at least the next five years. While new Internet payment mechanisms have been rapidly emerging, consumers and merchants have been happily conducting a growing volume of commerce using basic credit card functionality. None of the emerging efforts to date have gotten more than a toehold in the market place and momentum continues to build in favor of credit cards.

At the present time, there are two large market segments for an online payment system. First, high volume, low dollar payments from consumers to providers of on-line digital intellectual products or services such as written materials, music, software or games. These can either be 'Intrapreneurs,' individuals or small merchants marketing their products directly to consumers, or larger intermediaries, either traditional retail merchants or auction sites that aggregate consumers and sellers to facilitate sales. A second large market segment involves electronic payments from consumers to other consumers.

The market opportunity will continue to explode as what is currently thought of as the Internet continues to expand. In general, the Internet is thought of as a Personal Computer (PC) and telephone based.

processing fee consuming a relatively high proportion of the total revenue generated by the product sale. These characteristics of a low cost item lend themselves to a low cost payments solution that is guaranteed, yet does not require the payee to bear the burden and risk of authentication.

The Internet is spawning a direct model in which manufacturers of products or services are able to deal directly with consumers. This model has several implications for the payment process. First, by eliminating the middleman, the direct model is resulting in intense price competition, with manufacturers having much tighter margins. This competition creates the need to minimize all costs especially payment processing costs. Second, the Internet enables the development of large numbers of independent producers to 'set up shop' on the Internet and immediately have access to large numbers of consumers. Third, a large and increasing number of intellectual products such as publications, music, video, software, games are more efficiently distributed digitally over the Internet rather than through traditional physical (paper or disc) media. While this trend has already started, as higher bandwidth and increasingly sophisticated devices enter the marketplace, it is expected to increase significantly. Many of these purchases will have the following characteristics: low cost to the consumer, and the ability to purchase individual works (i.e.: a song, a video, an article, a game). These characteristics call for a payment form that has a low cost.

By combining these two trends - direct merchant to consumer distribution from independent 'intrapreneurs' and the ability to distribute products digitally - a new marketplace has emerged for low dollar, high volume, real-time payments with payment surety for both consumers and

producers. Larger intermediaries, such as existing on-line merchants and auction sites will also benefit from a low-cost payment device for high-volume, low-dollar payments for all of the same reasons outlined above. On-line merchants are currently facing a variety of problems including a low volume of on-line purchases relative to the number of site viewers; a high volume of charge-backs for on-line purchases; non-integrated 'patchwork' systems for payment processing; high fraud rates and high processing fees. All of these factors serve to depress the potential number of customers who are comfortable purchasing on line as well as depressing the profitability of on-line merchants.

Furthermore, to date, there is no efficient way for consumers to make payments to other consumers using the Internet. All traditional forms of person-to-person exchange include the physical exchange of cash or checks rather than a real-time digital exchange of value. In addition, the high cost of retail wire transfers (i.e., Western Union™) is cost prohibitive to a significant portion of society.

Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line Point Of Sale (POS) for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. Furthermore, ACH payments have to be received, deposited and cleared before the funds are available. In contrast to ACH transactions, credit and off-

line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication).

Two significant drawbacks with some or all of the above models for Internet POS payments are that: 1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the potential merchants conducting business on the Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 110, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to

the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

Some of the same drawback described above with respect to Internet shopping equally apply to electronic bill payment. The first drawback, requiring a pre-existing relationship between the consumer and bill payee is not as great a concern because this relationship most likely already exists between the consumer and the payee (e.g., the telephone, cable or utility company). The second drawback which requires the consumer to provide the payee with his or her account and/or PIN still remains a concern with electronic bill payment. Although fraud is less of a problem for bill payment, since the consumer presumably has regular dealings with the payee, some consumers still view the provision of the payee with at least his/her account number a diminution in the consumer's privacy.

SUMMARY OF THE INVENTION

The present invention represents a new paradigm for effectuating electronic payments that leverages legacy platforms, conventional payment infrastructures and currently available web-based technology to enable e-commerce in both the virtual and physical marketplace. The concept provides a safe, sound, and secure method that allows users (consumers) to shop on the Internet, pay bills, and pay anyone virtually anywhere, all without the consumer having to share account number information with the payee. Merchants receive immediate payment confirmation through the Electronic Funds Transfer (EFT) networks so they can ship their product with confidence. The present invention further enables small dollar financial

transactions, allows for the creation of "web cash" as well as provides facilities for customer service and record-keeping.

There are five main structural components to the system of the present invention: a digital Wallet; an Internet Pay Anyone (IPA) Account; a Virtual Private Lockbox (VPL) and an associated VPL Reporter; the existing EFT networks, and a cash card. The Wallet is a software application that augments any Internet browser with e-commerce capability. The Wallet software sits in front of and provides a secure portal for accessing (linking to) either the user's Demand Deposit Account (DDA) or an IPA account. Consumers use the Wallet to fund their account, shop on the web, pay bills, pay anyone, store electronic receipts and transaction history, and check their recent Wallet activity. The Wallet provides consumers with a safe, secure, and convenient way to conduct financial transactions over the Internet.

The majority of the prior art electronic wallets on the Internet today are primarily used as a convenience vehicle merely providing a method of storing account number information. The Wallet of the present invention not only stores account and shipping information, it also links to a DDA, or an IPA which contains a pre-funded dollar amount. The Wallet thus creates a form of virtual cash that is secure and guaranteed. The Wallet further contains a receipt feature, so that all purchases and payments can be reviewed on demand. The Wallet enriches the consumer e-commerce experience by eliminating the tedious process of filling out lengthy payment and shipping fields as this is done automatically. Merchants also benefit from the payment and shipping feature, as research indicates that most e-commerce purchases

are abandoned at the point of sale due to consumers' unwillingness to complete lengthy forms or provide personal credit card numbers.

The IPA account is a special purpose DDA with limited functionality for funding and receiving electronic payments. Funds can only be accessed electronically (through a PC, card reader, PDA, Interactive TV and cell phone technology, for example). This restriction provides an added level of consumer protection in that all transactions must pass through the secure EFT network.

Similar to an IPA, the VPL is a limited function DDA account. While an IPA can be accessed electronically, a VPL is constructed with EFT network "receive only" functionality for a merchant (or other party) to receive electronic payments through the EFT. Therefore a VPL is a secure address that can be provided to the public as a means of receiving funds. These funds are then automatically swept to either the owner's corresponding DDA or IPA account, preferably once a day. As will be further described below, there are several types of VPL accounts according to the present invention: one for consumers, one for merchants and one is linked to a cash card. The VPL linked to a cash card does not sweep into a separate account, nor is it linked to an IPA or Wallet technology. Rather, this card VPL is a receive only account that can only be debited via the use of the cash card.

The VPL Reporter is a portal to view the VPL account. Although similar to the Wallet described above, the functionality of a VPL Reporter differs from a Wallet. The VPL Reporter is a tool primarily employed by merchants that provides online, real-time transaction reports, and reconciles accounts receivable/purchase records against incoming EFT

payment records. In addition, the transaction history of the VPL can be archived and retrieved via a payment search engine in the VPL Reporter. This provides the merchant with powerful data mining, customer service, and order fulfillment (warehouse, shipping, supply chain management) tools at their fingertips. Credit card purchases on the web according to prior art methods are not connected to a cash management program. In contrast to these prior art systems, the VPL, connected with the VPL Reporter, offers a complete purchasing and cash management opportunity for a merchant. The VPL and VPL Reporter combination provides a merchant with instant payment receipt verification, accounts receivable functionality, order fulfillment facilitation, inventory control/supply chain management facilitation and data mining capability.

The VPL Reporter is a flexible new product offering instant payment confirmation, reconciliation and record retention so that merchants can track purchase orders against actual payments in real time. Every VPL transaction can be stored, searched, and retrieved. This archival/retrieval functionality is the perfect instrument for customer service and data mining. The VPL Reporter offers all of the above features, without the need to actively engage in funds management as is required with the prior art.

Using the structures described above, the methods of the present invention allow consumers and businesses to conduct secure and economical shopping on the Internet, to pay anyone online, wire anyone funds online, pay bills electronically online, and even use a linked cash card. The methods and structures of the present invention enable e-commerce in both the virtual and

physical marketplace through the use of legacy platforms, the conventional payments infrastructure and currently available web-based technology.

The present invention furthermore solves many, if not all, of the problems of the prior art described above. Currently, all Internet transactions use "pull" technology in which a merchant must receive the consumer's account number (and in some cases pin number) in order to complete a payment. The payment methods of the present invention conversely use "push" technology in which consumers apply an EFT credit to the merchant's account, without having to provide their own sensitive account information.

The present invention provides an enhanced level of security because no sensitive financial information is carried over the Internet. All of the financial transactions are executed through the secure EFT network. This method of the present invention provides consumers and merchants with the comfort that their transactions are both secure and private. Furthermore, since payment confirmations are immediately received through the EFT network, merchants can rest assured that the consumer's funds are "good" before the purchase transaction is completed (i.e., before the goods are released (shipped) to the consumer).

The funds in the IPA account of the present invention can only be accessed electronically (via PC, PDA, card reader, interactive TV, Internet kiosk ...). This restriction provides an added level of consumer protection in that all transactions must pass through the secure EFT network. The VPL of the present invention is constructed with EFT network "receive only" functionality. The only way that funds can be moved out of the VPL is through a sweep to a corresponding DDA or IPA account. Therefore a VPL is

a secure address that can be provided to the public as a means of receiving funds.

The present invention provides significant economic advantages over the prior art systems and methods. The majority of the technology required to implement the present invention already exists which results in reduced startup costs for a financial institution practicing the present invention. Payments made according the present methods pass through a mature, established EFT switch which results in a low transaction cost. The payment mechanisms of the prior art are not optimal for processing small dollar transactions. However, the efficient, low cost architecture of the present invention supports payments of any size and is perfect for low dollar purchases. This architecture supports the growing need for Internet micro-payments for goods such as on line articles and music files, yet supports large value payments as well.

By the structures and methods of the present invention, the two most significant disadvantages of the prior art online shopping methods described above have been overcome. First of all, the consumer is no longer providing its confidential financial information to strangers over the Internet. Rather, the consumer is dealing directly with its own trusted institution, the bank. Furthermore, no pre-existing relationship has to exist between the customer and the merchant.

For the merchant, the present invention significantly reduces the transactional cost as compared to the use of credit cards. The method also provides a reduction in fraud and credit losses, while the finality of the

transaction virtually eliminates dispute and chargeback processing from the viewpoint of the financial institution.

The present invention is not limited to the case of a consumer making purchases from Internet merchants. The method has further, broader applicability by providing the ability for anyone with an account at a financial institution to transfer funds to anyone else who also has an account at the same or a different financial institution. The pay anyone feature of the Wallet allows consumers to virtually wire funds instantaneously without the expense of today's wiring fees.

BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the present invention that enables Internet shopping;

Figure 3 depicts a pay anyone embodiment of the present invention;

Figure 4 illustrates a prepaid cash card embodiment of the present invention;

Figure 5 illustrates a wire anyone embodiment of the present invention;

Figure 6 illustrates a bill payment, biller direct embodiment of the present invention;

Figure 7 illustrates a bill payment, service provider consolidation embodiment of the present invention;

Figure 8 illustrates a bill payment, customer consolidation embodiment of the present invention; and

Figure 9 illustrates a structure and process for funding an Internet payment account wallet.

DETAILED DESCRIPTION OF THE INVENTION

In contrast to the credit card, on-line and off-line debit and other payment models existing today, one of the unique features of the method of the present invention is the flow of the payment instruction and the payment which follows. In the credit card, on-line and off-line debit models, a consumer provides the merchant with an instruction that authorizes the merchant to collect funds from the consumer's bank account. Depending on the system, this payment instruction results in a guaranteed customer payment in the case of an on-line debit rather than a lengthy wait for funds (such in the case of a check) or something in between in the case of an off-line debit and credit card. The difference between the prior art models and the model of the present invention can be described as the difference between a "pull" and a "push" model. In the conventional models of today, the merchant "pulls" the payment from the consumer's account, while in the present invention the customer "pushes" the payment to the merchant's account.

Figure 2 illustrates a first embodiment of the present invention in which a consumer can perform Internet shopping. Figure 2 further illustrates the main structural components of the present invention. Element 200 represents the device through which the consumer accesses the Internet. In a preferred embodiment, the workstation 200 is Personal Computer (PC) loaded with an Internet browser 210 such as Netscape™ Navigator™ or Microsoft™ Internet Explorer™. In alternative embodiments, the user can access the Internet using any Internet ready device such as a web enabled ATM machine or a Personal Digital Assistant (PDA) such as a Palm Pilot™, a cell phone or an interactive TV. The present invention is not limited by any particular physical device and can employ any device which provides access to the Internet. For example a public Internet kiosk which provides access to the Internet can be used to practice the present invention.

As the user accesses the Internet, a Wallet 215 is attached to the user's session. The Wallet 215 can be downloaded and installed from a website. Using thin wallet technology, the Wallet 215 resides on a host web server and the user accesses the Wallet 215 through a website or a button on the browser 210. In addition to PC-based access as described above, the Wallet 215 can be downloaded to various non-PC devices such as PDA's, cellphones, and interactive TV's. The consumer may access the Wallet 15 while logged onto Internet by selecting a Wallet 215 button on the browser 210 toolbar, or selecting the Wallet 215 icon at the merchant's web site. For non-PC devices, the Wallet 215 can be activated via a separate application, a browser link, or through a sponsoring website.

The user's log-in to the Wallet 215 is secure and encrypted to protect the confidentiality of the financial information associated with the operation of the Wallet 215. Once accessed, a window containing the Wallet 215 is launched on the workstation 200 and remains open during the user's session. The Wallet 215 window has the ability to communicate with other open browser windows.

As one of its primary functions, the Wallet 215 serves as the portal to an Internet Payment Account (IPA) or a DDA account 230 described in more detail below. In a preferred embodiment the Wallet 215 stores the following types of information: Form filling information such as credit card numbers, debit card numbers, shipping addresses, alternate shipping addresses, frequent flyer accounts, membership discounts (e.g., AAA, AARP), loyalty programs and e-mail addresses; Discount information such as e-coupons, rebates and merchant-specific spending certificates; and Convenience information such as frequently paid VPL #'s (described below), bill payment account #'s, receipts, e-commerce bookmarks, shopping lists, and the preferred download folder on the user's local hard drive.

Using the above information, the Wallet 215 automatically fills in electronic merchant purchase forms with the user's shipping address, e-mail address, discount numbers, etc. The Wallet 215 supports virtual cash (IPA/DDA) as well as credit and debit card payments. Upon receipt of an electronic purchase message from a merchant web site as will be further described below with respect to the method of Figure 2, the Wallet 215 user is able to: 1) approve a purchase; 2) initiate the payment 3) generate a purchase confirmation that will be transmitted to the merchant web site; and 4) generate

a receipt that will be stored. The Wallet 215 user receives a confirmation message indicating that no purchase has been made if a purchase is not completed. Steps 3-4 may occur in succession or simultaneously

The Wallet 215 includes a "Time Out" feature whereby purchase requests not approved by a Wallet 215 user for a set amount of time (e.g. 10 minutes) will be invalidated. For "Pay Anyone" payments as further described with respect to Figure 3 below, the Wallet 215 supports a user defined recission period (e.g. 30 minutes) during which the user can reverse a transaction. Furthermore, the Wallet 215 includes parental control settings to fund the account, limit transaction value and to block unapproved sites.

A unique transaction number is included in any payment messages to and from the Wallet 215 and these messages are stored by the Wallet 215 for review and auditing by the user. Wallet 215 interfaces with the VPL Reporter described below, which will have access to all archived transactions. Transactions are stored for audit as well as disaster recovery purposes. The Wallet 215 allows the user to view all transaction histories including receipts and messages. These historical items are sortable by date, function (bill payment, pay anyone, shopping, etc.), amount, payments initiated or received, merchant, etc.

As is further described below, Wallet 215 payments to a merchant's Virtual Private Lockbox (VPL) 235 include the merchant's VPL number, the Wallet 215 user's name (if required) and a unique transaction number. The Wallet 215 can make repeated payments (daily, weekly, etc) as well as scheduled payments (on a specific calendar day or in a specific # of days). If the Wallet 215 is linked to a DDA or IPA account 230, DDA debits

such as checks, returned checks, ACH payments, etc. are not charged against funds in the IPA account 225. Users are required to acknowledge acceptance of a Wallet 215 agreement prior to their first transaction including a requirement to return any proceeds received in error.

Prior to conducting any on-line purchases or making any payments using the methods of the present invention, the consumer establishes an Internet payment account (IPA) 230 with its bank 220. The IPA account is a specialized DDA used specifically for online payments in accordance with the present invention. Once this IPA account 230 has been established, the consumer is able to fund this account 230 from its normal DDA checking or savings accounts, consumer's Line of Credit or credit or debit card account held by the bank 220 or any other linked account from which the consumer can transfer funds. Funds drawn from a credit card are sent to the IPA account 230 via the EFT network 270. The IPA account 230 further provides the user a confirmation to verify that the amount drawn is correct. The IPA account 230 further allows ATM credit transactions and PIN-initiated debit transactions.

The establishment of a separate IPA 230 for credits and debits is preferable from a consumer's point of view in order to provide a separate accounting and statement from the consumer's normal DDA. As with its regular DDAs, the IPA transaction history is archived. As the IPA account 230 is not necessarily interest bearing, the consumer would accordingly only fund small amounts into this account in order to cover potential on-line purchases. In an alternative embodiment of the present invention, the

consumer's payment request for credits and debits can be made directly against the DDA.

The IPA account can have a physical companion card (e.g. ATM, Debit, Smart Card) for physical, in person, purchases and withdrawals as will be further described below with respect to Figure 4. The IPA account 230 can allow physical access via ATM's or merchant card readers for a PIN debit transaction only.

One of the most significant features of the present invention is the use of the existing EFT networks 270. Although these networks 270 have provided secure transfer of funds for years, the use of these networks in accordance with the present invention is heretofore unheard of. In the use of the EFT network, the present invention provides real time credit. This is contrasted to the prior art methods in which the credit provided is a reversal of a prior debit transaction (e.g., credit cards) The EFT networks 270 are used to fund the IPA 230, effect IPA transactions, and fulfill IPA reporting functionality. As well as supporting the transmission of real time credit transactions, the EFT network 270 transmits messages containing special transaction codes or accounts number structures used to uniquely identify IPA transactions.

As described above, similar to an IPA account 230, the Virtual Personal Lockbox (VPL) 235 is a limited function DDA account. While an IPA 230 can be accessed electronically, a VPL 230 is constructed with EFT network "receive only" functionality for a merchant (or other party) to receive electronic payments through the EFT 270. Therefore a VPL 235 is a secure address that can be provided to the public as a means of receiving funds.

These funds are then automatically swept by the merchant's bank 275 to either the owner's corresponding DDA or IPA account 280, preferably once a day.

Like an IPA account 230, the VPL 235 can have a physical companion card (e.g. ATM, Debit, Smart Card) for physical, in person, purchases and withdrawals. The VPL 235 can allow physical access via ATM's or merchant card readers for a PIN debit transaction only. Although similar, it must be repeated the VPL 235 is a separate account from the IPA (or sending) account 230. The VPL 235 is a secure lockbox into which funds can be transferred but cannot be taken out (except during the sweeping process described herein). Users can choose whether their VPL 235 will sweep to a DDA or IPA account 280. VPL addresses for various merchants and other receivers of electronic payments are made available in a public website directory.

As described above, the VPL Reporter 240 is a portal to view the VPL account 235. The VPL Reporter 240 provides online, real-time transaction reports, and reconciles accounts receivable/purchase records against incoming EFT payment records. Although primarily intended for use by merchants, VPL Reporter 240 has two different levels of functionality, a base set of requirements for consumers, and added features for merchants & businesses.

With respect to the base (consumer) use, the VPL 235 updates the VPL Reporter 240 as payment records and transaction numbers are received through the EFT messaging system 270. At the same time, any purchase orders and payment confirmations are passed to the VPL Reporter 240 from merchant and billing web sites. The VPL Reporter 240 also receives

purchase confirmations from the Wallet 215. Purchase confirmations and payment records are retrievable, in real-time, from the VPL Reporter 240. VPL Reporter 240 owners will be able to view their records with respect to the base VPL account 235 on the web. Although only one VPL account 235 has been illustrated in Figure 2, it is understood that a merchant is able to simultaneously maintain several VPLs 235. Each of these VPLs 235 is capable of being accessed by the single VPL Reporter 240.

In addition to the functionality described above with respect to the base configuration of the VPL Reporter 240, a merchant embodiment of VPL Reporter 240 includes additional functionality. A first of the additional functions provided by the merchant VPL Reporter 240 is its reconciling capability that matches purchase requests 250 generated by the merchant's website 255 with shopper's purchase confirmations and the EFT payment records 245. Any items that do not match will be flagged as exceptions for review. The merchant VPL Reporter 240 further provides for identification (ID) and password security, offering varying levels of access authority to the users.

Additionally, the merchant VPL Reporter 240 automatically updates the merchant's accounts receivable, inventory & fulfillment files. As a further extension, VPL Reporter 240 also has fulfillment service capabilities whereby information from a merchant's website 255 is consolidated and communicated to a warehouse to initiate product shipment 260, as well as linked to United Parcel Service (UPS™), Federal Express (FedEx™), or other shipping services for shipping execution. The VPL Reporter 240 contains essential customer service tools such as the ability retrieve/review electronic

purchase orders/payments real time, and in turn the ability to email or autofax copies of such directly to customers. The VPL Reporter 240 further provides data mining tools that collect statistics on buyer/shopper behavior, track seasonal and regional buyer/shopper trends, and track other key demographics. Based on these statistics, merchants can issue focused, customized electronic coupons through their VPL Reporter 240. It is important to note that the VPL Reporter can be configured such that individual|buyer identities will not be available to the VPL Reporter 240 without the prior consent of the wallet owner. For consumers, the VPL Reporter 240 appears as a seamless part of the Wallet 215, while for merchants and businesses, the VPL Reporter 240 appears as a separate utility.

Merchant Web sites 255 are well known to those skilled in the art. Merchant Web sites 255 typically include code (such as HTML, XML, or ECML) for getting transaction bin statements to the Wallet 215 as well as a hotlink on the shopping site 255 that goes directly to shopper's Wallet 215.

Having described the structural elements of the present invention, the following discussion depicts an embodiment of the present invention related to Internet shopping. As in all of the remaining Figures 2-9, the method steps are illustrated in the Figures in small circles next to the structural element most closely related to the action being performed. In this embodiment, the consumer (user) initiates the process in step 2A by logging onto the Internet, launching the browser 210 and selecting the Wallet 215 icon from browser 210 toolbar.

In step 2B, the user completes a certification procedure 205 in order to correctly identify him or herself to the Wallet 215. Typically the

certification process involved the user keying in the user's ID and password. The user is thus authenticated and has access to their Wallet 215. In step 2C, the user is then presented with balance information with respect the Wallet 215 and can select from several options. In a preferred embodiment the options presented to the user include: Shop on the Web; Wire Anyone (see Figure 5); Pay Anyone (see Figure 3); Fund Wallet (see Figure 9); Pay Bills (see Figures 6-8); and Check Receipts from Wallet Activity.

Assuming the user has selected the Shop on the Web option in step 2D, the browser 210 could be initially directed to special website list of approved merchants. Alternatively, the user is free to navigate the Internet to the merchant web site of their choice. In step 2E, the user has found a website 255 of a particular merchant and more specifically has found and selected and item for purchase from merchant web site 255. Since the Wallet 215 is active, the merchant's site 255 recognizes user as a Wallet 215 customer. In response to this recognition, all of the purchase fields (shipping address, name, etc.) required by the merchant site 215 are automatically populated from the Wallet 215 as described above. Alternatively, the user can sign on to their wallet after the user has found an item at a website for purchase. The user can either invoke the Wallet 215 by clicking on an icon embedded directly into the merchant's web page 255, or by clicking on the Wallet button on the browser 210 toolbar.

In step 2F, the merchant site 255 generates and transmits to the user a bill payment message containing information with respect to the prospective purchase. The information provided by the website 255 in the bill payment message includes but is not limited to the following data: Merchant

BIN; Merchant Account #; Transaction ID; and the Dollar Amount of the transaction. In step 2G the bill payment message is received by the Wallet 215 window. The window displays the bill payment message for review by the user. If the user changes his or her mind, the user can select a button on the window entitles Decline Purchase. If the user does want to complete the purchase a Purchase Item button is selected. Although described above with respect to a single item it is clear that the above process equally applies the shopping cart method employed by most merchant sites 255. In the shopping cart method, after the customer has selected a number of items to purchase, the merchant site 255 totals the items and transmits a consolidated payment message to the Wallet 215 in step 2F.

If the user has selected to purchase the item pursuant to the bill payment message from the merchant site 255, the Wallet 215 in step 2H verifies the user's balance in the Wallet 215 and passes a transaction record to the user's IPA or DDA account 230 as described below. In addition to processing the transaction record for the user, the Wallet 215 transmits a payment confirmation to the merchant's website 255. Typically, in response to this payment confirmation from the user's Wallet 215, the merchant's website 255 creates a purchase record 250 in a database (not shown) for future use in reconciling with the actual payment record 245 received when the financial systems (banks 220, 275 and EFT switch 270) indicate that the funds will be or have been transferred to the merchant's VPL account 235. The banks 220, 275 which maintain IPA 230 and VPL accounts 235 also maintain the above described database used as a centralized record keeping archive in order to feed and retrieve transaction data including. Such transaction data

includes merchant purchase requests, the herein described online transactions and Wallet payment confirmations, and the records required for the VPL Reporter 240 including EFT transaction data.

In addition to the payment confirmation sent by the Wallet 215 to the merchant's website 255, the Wallet 215 sends the payment transaction to the user's IPA or DDA account 230 for the actual transference of the funds from the user's account 230 to the merchant's account 235. The consumer's bank 220 will require some form of authentication of the payment request from the Wallet 215. This authentication can be in the form of a software certification, an encrypted PIN, or the mother's maiden name of the consumer as is illustrates in the certification block 225 in Figure 2. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment request.

Upon receipt of this requirement for payment, in step 2I, the user's IPA or DDA account 230 sends a bill payment record 245 to the merchant's VPL account 235 via the ATM switch 270. Although the payment record 245 is illustrated in Figure 2 and being processed directly by the accounts 230 and 235, it is appreciated that the records are actually processed by the messaging systems of the user's bank 220 and the merchant's bank 275 via the EFT network 270. The payment record 245 is essentially a guarantee of payment from the user's bank 220 (the funds being debited from the user's account 230) to the merchant's bank 275 (the funds being credited to the merchant's account 235).

After the bill payment record 245 has been received by merchant's VPL 235, the record 245 is linked to the merchant's VPL Reporter

245. Upon receipt of the payment record 245, the VPL Reporter 240 preferably stores the record 245 in the same database in which the purchase record 250 was stored in step 2H described above. Once the payment record 245 has been stored, it can be reconciled by the VPL Reporter 240 against the merchant's purchase record 250. In this manner, the accounting loop in the merchant's system can be closed, with the matching of the merchant's invoice (the purchase record 250) with the payment (the payment record 245). With VPL Reporter 240, a merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities. Once the financial loop has been closed with the receipt of the payment record 245 by the merchant, the merchant can confidently ship the goods 260 to the consumer in step 2L. Shipment of the goods can entail physical shipment of a physical good, or electronic transmission of a digital good such as a music file.

In fulfillment of the guarantee established by the payment record 245, funds are settled once a day in step 2M between user's bank 220 and the merchant's bank 275 through the EFT switch 270. Typically, hundreds or thousands of such payments occur back and forth between bank 220 and bank 275 during the day and for efficiency purposes, the actual net funds due from one bank to the other are only transferred once per day. For example, one bank 220 might have guaranteed $10,000 in payments from 100 of its customers to the other bank 275. On the same day the other bank 275 might have guaranteed $12,000 in payments from 50 of its customers to the other bank 220. At the end of the day, bank 275 only sends the difference, $2,000, to bank 220 and each of the banks 220, 275 ensure that the proper accounts in its own bank are debited and credited for the payments. As can be readily

appreciated each bank can perform this once a day settlement with hundreds of other banks, as is presently done with the current ATM system 270 transfer of funds. Again on a daily basis, the funds received into the merchant's VPL account 235 are swept by an automatic process into the merchant's cash concentration account 280, which can be a DDA or IPA account.

As is readily appreciated from the above description, the Wallet 215 and the Virtual Private Lockbox (VPL) 235 significantly enhances the consumer and merchant experience when used for web shopping. The present invention completely solves one the biggest problems of the prior art, the hesitancy of a consumer to provide it's financial account information over the Internet. Rather than the merchant "pulling" in the consumers account information and requiring authentication of the consumer, the Wallet "pushes" guaranteed funds to the merchant's Virtual Private Lockbox, without the merchant obtaining the consumers account info. This transaction is virtually instantaneous, provides privacy, security, and convenience to the consumer -- and guarantees funding, provides reconcilement, and supplies archival records to the merchant.

With respect to authentication, because the consumer is pushing the payment to merchants or other entities or individuals, rather than the merchants pulling payments from consumer accounts, the consumers do not need to authenticate themselves to the merchant. Rather, the consumers authenticate themselves to their own bank 220, which then executes the payment to the merchant's VPL account 235.

This method of the present invention is quite attractive to consumers because they can pay any merchant regardless of the existence of a

pre-existing relationship with that individual or entity. The transaction can furthermore be conducted from anywhere there is access to the Internet. The IPA account 230 can be used and managed through the consumer's PC, a web enabled ATM, by phone 203 or by any other web enabled device 204. The present Internet shopping payment method is extremely easy for online banking customers to adopt. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with her or his own financial institution.

With respect to merchants that are paid by the method of the present invention, there are several advantages. This method opens up a universe of buyers/payors who do not have access to or the desire to use credit or debit cards online. Very little effort is required on the part of a merchant which only has to publish its bank 275 and VPL deposit only account 235 information on its web site 255. If a merchant has been using traditional credit card methods, the present invention provides the merchant with significant savings in credit card processing, repudiation costs, fraud loss, and chargeback costs. The present invention also provides the merchant with the ability to economically accept micropayments.

Figure 3 illustrates a second embodiment of the present invention in which the structures described above can be used by a user to pay anyone. The Wallet 215 of the present invention provides the user with tremendous flexibility. Anyone with a Wallet 215 can conveniently send funds to anyone else with a Wallet 315. This funds transfer is instantaneous and at no cost to the consumer, and is conducted in a secure environment.

As described above with respect to the Internet shopping model illustrated in Figure 2, in the pay anyone model of Figure 3, in steps 3A-3C, the user logs onto the Internet, launches its browser (not shown in Figure 3) and launches the Wallet 215. The Wallet 215 again requires that the user keys in its user id and password, by which the user is then authenticated and has access to their Wallet 215. The User is then presented with its Wallet 215 balance information and can select from several options including Shop on the Web, Pay Anyone, Pay Bills, Wire Anyone, Fund Wallet, Check Receipts from Wallet Activity, Edit Wallet information, or Go to Customer Service. In the present embodiment illustrated in Figure 3, the user selects the Pay Anyone option from the menu and the user is presented with several options in the Pay Anyone menu screen in step 3D. These options include: manually keying in the payee's VPL number; selecting a prior payee from a drop down menu; Add/Remove/Edit a payee from drop down menu; and the option to go to an online directory of VPL numbers of various payees. In the particular embodiment illustrated in Figure 3, the user keys in (or selects) the payee's VPL number, the dollar amount of the payment, and a description of the reason for the payment, the description being optional.

In step 3E, the above described payment information is transmitted to payee's Wallet 315. The payee's Wallet 315 verifies the VPL number specified by the user and provides an authorization to make the payment. In step 3F, the payee's Wallet 315 confirms that information is correct and transmits to the user (payor) a payment message with the following data: Payee BIN; Payee Account #; Transaction ID; the dollar amount of the payment; and an optional description. In step 3G, upon receipt

of the payment message, the user reviews the message and selects "OK to Pay".

In step 3H, the user's Wallet 215 sends the payment transaction to the user's IPA or DDA account 230. In parallel, the user's Wallet 215 transmits a confirmation of the expected payment to the payee's Wallet 315 which creates an expected payment record 350. The payment transaction from the user's Wallet 215 to the user's IPA account 230 goes through the certification 225 as described above in order for the user's bank 220 to properly identify the user's authorization to make the payment from the IPA account 230. In step 3I, the payment message is passed from user's IPA or DDA account 230 to the payee's VPL 335 via the ATM switch 270. The payee's VPL 335, in step 3J, in turn transmits the payment record 345 to the payee's Wallet 315 or alternatively to the payee's VPL Reporter 340 (if the payee has such a Reporter 340). Upon the receipt of the payment record 345, in step 3K the payee's Wallet 315 or VPL Reporter 340 is able to reconcile the expected payment record 350 against the actual payment record 345. Upon receipt of the actual payment record, the payee bank 375 credits the payee's VPL account 335 and the payee now has immediate use of funds. These funds can in turn be used for web shopping, bill payment, pay anyone (step 3M). Or withdrawn at an ATM using the card feature described below.

In concluding the pay anyone process, as with the embodiment illustrated in Figure 2, funds are settled once a day between the user's bank 220 and the payee's bank 375 (through the EFT network 270), and the funds are swept into the payee's DDA or IPA account 380.

The pay anyone process described above is a very attractive payment method for consumers. For example, the consumer might be responding to a classified advertisement (electronic or traditional paper) or purchasing an item or a service through an electronic auction site such as eBay™. In either of these cases, the consumer can obtain the payee's VPL account 335 information (e.g., BIN, account number ...) in a variety of ways. In one method, the consumer obtains this information electronically from the service where it contacted the individual (e.g., through eBay™). Alternatively, the consumer can obtain the necessary destination bank information through offline methods such as the traditional paper classified advertisement or through an Email which has been "pushed" to the consumer by the potential payee. The potential payee is protected using these methods since the VPL account 335 is a receive only account and no one can access the account to fraudulently withdraw money from the account.

Figure 4 illustrates an embodiment of the present invention involving pre-paid cash cards. In this embodiment, the pre-paid cash cards are linked to IPA or VPL accounts containing a pre-set amount of cash. The card is issued to the IPA or VPL account owner in order for the user to access the IPA or VPL account in the physical world. Furthermore, the cards can be purchased at vending machines placed in convenient e-commerce locations. The card can be issued from the sponsoring bank's website or from a vending machine/vending-enabled ATM. When the user establishes a Wallet 215 on the Internet, an option is available for receiving the pre-paid plastic card. Upon selecting this option, the card is mailed to the IPA owner.

In the vending machine embodiment, the card is purchased from the vending machine with pre-funded with set increments of currency. These increments are associated to specific account number ranges, and are linked to pre-activated VPL accounts. Alternatively, the card can be automatically activated upon its disbursement from the machine, or by the consumer making a toll-free call to a customer service line. The purchase of a card at a vending machine establishes a VPL account for the purchaser.

Once purchased, the cards can be accepted at ATM's and merchants that are outfitted with card readers. Since the cards are PIN protected, they are safer than cash. The card has the IPA or VPL account number as well as a PIN. The PIN is printed on a sticker affixed to the back of the card when the card is issued. The account number and PIN are also stored on the magnetic stripe on the back of the card. The VPL account associated with the card can receive funds from any VPL account owner. The card can be used to withdraw funds at an ATM and make purchases to any merchants that accept debit cards.

For card purchased by someone who did not previously have a VPL account, in order to subsequently utilize the card on the Internet, the card owner will be required to establish an Internet ID and password at the sponsoring bank's website (which is printed on the back of the card). At the bank's website, the new card owner keys in the card number and PIN to synchronize the VPL with a newly created IPA account for the user. This action also creates an Internet ID and password for the user. This synchronization will shift the card link from the VPL account to the IPA account. The user will also be asked to indicate whether any funds received

by the VPL will be swept to the newly created IPA or to an existing DDA account.

One specific embodiment purchasing and using a pre-paid card is illustrated in Figure 4. In step 4A, the purchaser selects a card from either a vending machine 400 or a vending enabled ATM (not shown). In a preferred embodiment, cards can be purchased for as little as a $1, or in larger ATM-like increments. After making a selection, the purchaser is prompted to pay for the card. Several purchasing options are available, including cash, debit cards and credit cards.

In step 4B the card is disbursed from the machine 400, and is shrink wrapped with a pre-assigned PIN as well as instructions for using the card. The card is either pre-activated or alternatively, the dispensing machine 400 sends an activation message to the card sponsor upon its purchase.

With the card in hand, the user is able to withdraw funds from the account associated with the card or making store purchases using the card. In step 4C, the card owner inserts the card into an ATM machine 430 or a merchant card reader at a merchant's Point Of Sale Location. The user then keys in the PIN number to identify her or himself as the proper owner of the card. In step 4D the merchant's card reader, which is connected to the EFT network 270, transmits the request through the EFT switch 270 to the sponsoring bank 410.

As similarly depicted in Figure 2, the payment message is seen as being received directly by the user's VPL account 420, but in practice, it is realized that all EFT messaging occurs through the systems of the bank 410. The message is transmitted to the bank 410 as an online PIN debit transaction

against the user's VPL account 420. Upon verification that there are sufficient funds available in the VPL account 420 associated with the requesting card, the transaction is authorized by the VPL sponsor 410 and the funds are deducted from the balance in the VPL account 420. In step 4E, the authorization message is transmitted back to the ATM or POS 430 through the same EFT network 270 and the funds are released to the card owner (in the case of an ATM withdrawal) or credited to the merchant (store purchase) in step 4F.

Figure 5 illustrates an embodiment of the present invention in which the user can instantly wire funds to anyone. The payee (recipient of the funds) can withdraw the funds via an ATM through the use of a VPL card, which the payee can either purchase at a vending machine or receive by mail when establishing an account, as described above. As with all of the embodiments of the present invention, this wire anyone feature ensures that the transaction is conducted in a secure environment.

As described above with respect to the embodiments of Figures 2 and 3, in the wire anyone method of Figure 5, in steps 5A-5C, the user logs onto the Internet, launches its browser (not shown in Figure 5) and launches the Wallet 215. The Wallet 215 again requires that the user keys in its user id and password, by which the user is then authenticated and has access to their Wallet 215. The User is then presented with its Wallet 215 balance information and can select from several options including Shop on the Web, Pay Anyone, Pay Bills, Wire Anyone, Fund Wallet, and Check Receipts from Wallet Activity. In the present embodiment illustrated in Figure 5, the user in step 5D selects the Wire Anyone option from the menu and is asked whether

the potential payee already has Wallet or a Card. If the payee already has a Wallet the procedure set forth above with respect to the pay anyone method of Figure 3 is followed. If the user indicated that the payee has one of the cards described in Figure 4, the user is prompted to either key in the cardholder's account information or to select the card from an online directory. After the user has keyed in the requested information, the information is validated (i.e., the VPL account associated with the card is valid). The user then keys in the dollar amount that is to be wired.

In step 5E, a wire confirmation is generated with the following data: Payee BIN; Payee VPL number (card number); Transaction ID; and dollar amount. After reviewing the information, the user then selects "OK to Wire" on the workstation 200 screen (e.g., PC, PDA ...). In step 5F, the user's Wallet 215 verifies the balance in the IPA account 230 and passes the transaction to IPA 230 if there are sufficient funds in the account 230 to cover the transaction. In step 5G, the payment message is passed via the ATM switch 270 from user's bank 220 (IPA account 230) to the payee's bank 575 (VPL account 535).

The payee can withdraw the funds via an ATM 500 through the use of a VPL card as described above. When the withdrawal is requested, a payment message is transmitted in step 5H from the Payee's VPL account 535 to the ATM 500 provider bank. The payee now has immediate use of funds, and the withdrawal is made in step 5I. As with the previous embodiments, funds are settled once a day between the payor's bank 220, the VPL owner's bank 575, and the ATM 500 provider bank.

The present embodiment is well suited for many different situations. For example, if a parent has a son or daughter away at college, the parent has provided the child with a card and associated VPL account 535, and is able to transfer funds to the child's account 535 in a simple, quick and cost efficient manner by use of the present invention. Those skilled in the art will appreciate that the above embodiment can be used by a customer of the bank to transfer funds to anyone, such as the customer's gardener or a child at college as described above.

Figures 6, 7 and 8 illustrate three different bill paying embodiments according to the present invention. Figure 6 depicts a direct bill paying embodiment, Figure 7 describes bill payment including a service provider performing consolidation, and Figure 8 explains a bill payment method in which the customer performs the consolidation. In Figure 6, the direct method, a biller establishes an e-billing capability on its own web site 255. Once enrolled in the service, the customer receives an e-mail notification that a bill is available for payment at the biller's web site 255. The customer launches the Wallet 215 from the browser 210 and then accesses the biller's web site 255. A payment is transmitted from the Wallet 215 to the biller's Virtual Private Lockbox 235. As in all of the embodiments of the present invention, the transaction is secure, protects the customer's privacy, and provides the biller with guaranteed funding, reconcilement, and archival records.

As is illustrated in Figure 6, the biller/merchant must first establish an e-billing relationship with its customer. One way in which the merchant might do so is to advertise its e-billing service via e-mail, mail, or

web. In step 6A, it is assumed the user has enrolled in the e-bill service at biller's web site 255 and is receiving monthly email notification when bills are available. As previously described, in step 6B the user logs onto the Internet, launches its browser 210, launches the Wallet 215 and is presented with the various menu options. In step 6C, the user selects the "Pay Bills" option and is given several options in the Pay Bills menu screen including "Pay Bills" and "Edit Billing information". Selecting the "pay bills" choice, the user navigates to the biller's web site 255. It must be recalled that the Wallet 215 already contains user's billing info.

Since web Wallet 215 is active, biller's website 255 recognizes the user as a Wallet 215 customer. In addition, the biller's website in step 6D verifies that customer has an established e-billing relationship. In step 6E, the biller's site 255 generates and transmits to the user a bill payment message that includes the following data: Biller's BIN; Biller's Account number; Transaction ID; and the dollar amount of the bill to be paid. In step 6F, the bill payment message is received by the Wallet 215 window and is displayed for review by the user. The user has several options including at least the choice to edit the bill (e.g., the amount to be paid) or the option to pay the bill as presented.

If the user selects the "pay bill" option, the Wallet 215 verifies the user's balance in its IPA account 230 and passes the payment transaction to the IPA/DDA account 230 while simultaneously transmitting a payment confirmation to the biller/merchant's website 255 (step 6G). The bill payment message is passed from the user's IPA/DDA account 230 to the biller's VPL

account 235 via the ATM switch 270 (step 6H). The bill payment record is then transmitted from the biller's VPL 235 to the biller's VPL Reporter 240.

In step 6J, upon receipt of the payment record which guarantees the funds to settle the bill, the biller's payment record 245 is reconciled against the biller's accounts receivable files 600. As previously described, with the VPL account 235 and the VPL Reporter 240, a billing merchant can execute secure transaction fulfilment, reconcile all its accounts, while securely archiving all its records for later, simple retrieval. As described above with respect to other embodiments, funds are settled once a day between user's bank 220 and the biller's bank 275 (step 6K). The funds can be swept to the biller's DDA or cash concentration account 280 (step 6L).

Figure 7 depicts bill payment method, bill payment through a service provider consolidator. This bill payment method is similar to the first illustrated in Figure 6, however in this method a central service provider consolidates e-bills from many different billers. The service provider's site enables the customer to review and pay bills with respect to several if not all of its billers (e.g., electric bill, phone bill, mortgage ...). The service provider is seamlessly outfitted with an archival capability, so that customers can review their bill payment history. The Wallet 215 once again provides the consumer with privacy, security and convenience while the VPL provides the service provider (and its customers, the biller/merchants) with guaranteed funding, reconcilement and archival records.

In step 7A, the user enrolls in the e-bill service at web site 755 of the Customer Service Provider (CSP). The e-billing relationship between the CSP and the user is established either directly in response to advertising by

the CSP or though the billers (customers of the CSP) advertising the services of the CSP to the users (who are customers of the billers). While enrolling (or at a later time) the user selects which bills it wishes to receive and pay electronically through the CSP's service. The CSP can offer an archive service to billers in order to store transaction history as well as providing a customer service unit to resolve transaction inquiries.

After enrollment, the user then begins to receive monthly email notification when bills are available from the billers chosen by the user. The e-bill can be sent to the user either by the CSP or directly from the biller to the user. In this second method, the biller must provide the CSP with an accounts payable file reflecting the e-bills it sent out, in order for the CSP to perform the below described reconciliation process for the biller. If the CSP is the party transmitting the e-bills to the users, the billers must provide the CSP with the billing information. Many types of record keeping methods are supported. The billers can push the billing information directly to the CSP's web site, or alternatively, the electronic bills can be channeled to the CSP via Spectrum or other electronic Internet bill payment aggregator.

Steps 7B and 7C are essentially the same as described above with respect to the direct bill paying embodiment of Figure 6. The only difference is that after choosing the "Pay Bills" option, instead of navigating to the biller's site directly, the user navigates to the CSP's web site 755. In step 7E , the user selects which bills to pay, and keys in the dollar amount to be paid on each bill (or selects the default, which is to pay the entire amount of the bill that was presented to the user)t. In step 7F, CSP site 755 generates and transmits to the user one or more bill payment messages. In one

embodiment, the CSP generates a single payment message that includes the appropriate payment information for all of the bills paid during the session. In an alternative embodiment, a separate payment message is generated for each of the bills paid by the user. In either embodiment, the message would include: the CSP's BIN; the CSP's VPL account number; a transaction ID (or IDs); the biller(s) name(s) and the dollar amount(s).

Steps 7F through 7L are essentially the same as described above with respect to steps 6F through 6L of Figure 6 and the elements that are the same shall not be repeated. Although only a single VPL account 735 is illustrated in Figure 7, it is appreciated that the CSP (or the billers directly) may maintain a VPL account 735 for each biller. Regardless of whether there is a single VPL 735 or several, the biller's themselves may view the contents of their receipts in the VPL 735 through the CSP's VPL Reporter 740. In step 7J, the CSP performs the reconciliation process for each of its customers (i.e., the billers). In Step 7L, each biller's receipts are swept into their respective DDA or cash concentration accounts 780.

Figure 8 illustrates the third bill payment embodiment involving customer consolidation. In this third bill payment method, the e-bills 800 are delivered directly to the customer in the form of an e-mail. Each e-bill 800 contains a hotlink, which directs the customer to the biller's web site 855 (or to a CSPs website if the CSP handles the payments for the biller). When the customer activates its Wallet 215, the web site 855 recognizes the Wallet 215 customer and initiates a payment message as previously described. The customer can then push the payment to the biller in the same manner that a payment is pushed in the web shopping embodiment of Figure 2, the pay

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anyone embodiment of Figure 3, as well as the two other bill payment embodiments of Figures 6 and 7. As with all the previous embodiments, the merchant once again receives the guaranteed funding, reconcilement, and archival records benefits of the present invention.

Figure 9 depicts a system and method for establishing and funding a Wallet 215. As described above a user's IPA account 230 is accessed through a virtual Wallet 215 that can be accessed via the Internet 900, ATM 905, telephone 910, Kiosk 915, an interactive TV, and even a Personal Digital Assistant (PDA) 920. The primary method for funding the Wallet 215 (or more specifically the IPA account 230 linked to the Wallet 215) is through one of the Wallet owner's other DDA accounts (e.g., a saving account). In a preferred embodiment, the Wallet 215 can receive funds from the other accounts of the user through various forms of online banking. Alternative funding options can be achieved through an externally sponsored credit card, by check or money order, or through the ACH network.

Steps 9A through 9C illustrate one method by which a user can install a Wallet 215. As previously stated the preferred embodiment includes an online banking system. The following example uses a fictional operator of the system denoted as XYZBank. In step 9A, the user logs onto the Internet and uses its browser 210 to navigate to the XYZBank.com site 960. In step 9B, the user selects the "Wallet" option from main menu on the XYZBank.com site. On the "Wallet" screen the user is presented with two options: "Are you an Online Banking customer?" and "Are you a Non-XYZBank customer? If user selects "Online Banking customer", the user is presented with a list of the accounts held by the user at the XYZBank that are

supported by online banking. The user then identifies of the DDA account 930 or IPA account 230 to which the Wallet will be linked. If the user selects "Non-Chase bank customer", their Wallet 215 is linked to an IPA account 230 set up for the customer at XYZBank.

Next, in step 9C the user sets up a web Wallet 215 for use by choosing "Install a Web Wallet" from the menu. The user is instructed that its web Wallet will now be installed as a button on the browser 210 toolbar. Once the software for the Wallet 215 has been installed on the user's system (e.g., the user's PC or web server), the user is prompted to provide some background information that will assist the user in making web purchases and payments. An example of some of the background information requested includes the user's shipping name address. At this point, the Wallet 215 installation is complete and the user can perform any of the methods described above with respect to Figure 1-8.

Steps 9D through 9K illustrate two methods of funding the Wallet 215. For customers of XYZBank, the primary method for initial and future funding of the Wallet 215 is performed through a link between the Wallet 215 and Online Banking as described above. For initial funding of the Wallet 215, the user selects "move funds to/from Wallet" from an online banking menu. The user then provides the following information: the source of the funds- checking, credit card, savings, etc.; the dollar amount of the transfer; the funding date; and whether this is one time transfer or a repeat transfer. Upon completion of above, the Wallet 215 is funded. Subsequent funding of the Wallet 215 can be done through the Wallet 215 itself or through the online banking system. In addition to funding via online banking,

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instructions can be given for funding via phone 910, ATM 905, Kiosk 915, or PDA 920 or interactive TV.

Steps 9E through 9J illustrate a method of funding the Wallet 215 from an external credit (e.g., cash advance from a credit card) or debit card, or an external DDA account (external to XYZBank). For the Non-XYZBank customer or an XYZBank customer wishing to fund the Wallet 215 externally, the user in step 9E selects "fund with a non- XYZBank account". The user then selects the financial merchant of the account (e.g., American Express™, VISA™, etc.) and keys in account number, expiration (if applicable), and the dollar amount of the funding transfer. The funding request is transmitted to a merchant acquirer 970 associated with or part of XYZBank. This account information is stored for future funding requests.

In step 9F, the merchant acquirer 970 (such as Chase Merchant Services™) authorizes the funding transaction and passes the request through the EFT switch 270. In step 9G, the financial merchant (e.g., VISA™) receives funding request via EFT switch 270, and verifies the card number, expiration, and credit limit. If the funding is authorized by the financial merchant (step 9H) the funds are received by the Wallet 215, more specifically, the IPA or DDA account 230 linked to the Wallet 215 (step 9I). The funds settlement (step 9J) between the credit card's bank and user's bank typically occurs once per day. A similar process occurs when the funding is from a user's DDA account at another financial institution.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present

invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

PP/2167-156

ABSTRACT OF THE INVENTION

Five main structural components of the include a digital Wallet, an Internet Pay Anyone (IPA) Account, a Virtual Private Lockbox (VPL) and an associated VPL Reporter, the existing EFT networks, and a cash card for access a VPL. The Wallet is a software application that provides a secure portal for accessing (linking to) either the user's Demand Deposit Account (DDA) or an IPA. Consumers use the Wallet to fund their account, shop on the web, pay bills, pay anyone, store electronic receipts and transaction history, and check their recent Wallet activity. The IPA account is a special purpose DDA with limited functionality for funding and receiving electronic payments. Funds can only be accessed electronically (through a PC, card reader, PDA, Interactive TV and cell phone technology, for example). The VPL is a limited function receive only DDA account for receiving electronic payments through the EFT. The VPL Reporter is a portal to view the VPL account, provide online, real-time transaction reports, and to reconciles accounts receivable/purchase records against incoming EFT payment records. In addition, the transaction history of the VPL can be archived and retrieved via a payment search engine in the VPL Reporter. The VPL provides the merchant with powerful data mining, customer service, and order fulfillment (warehouse, shipping, supply chain management) tools at their fingertips.

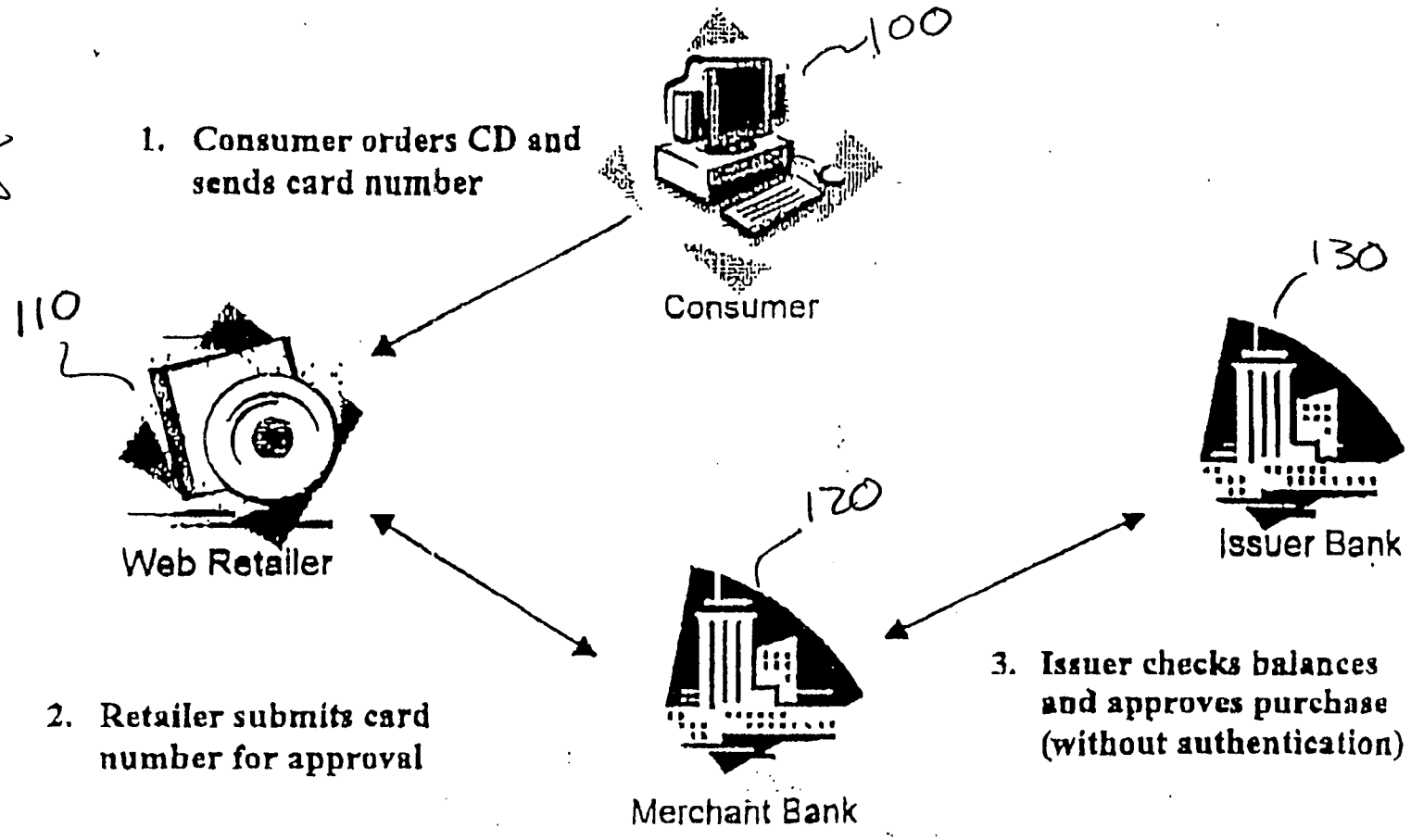


FIG. 1
PRIOR ART

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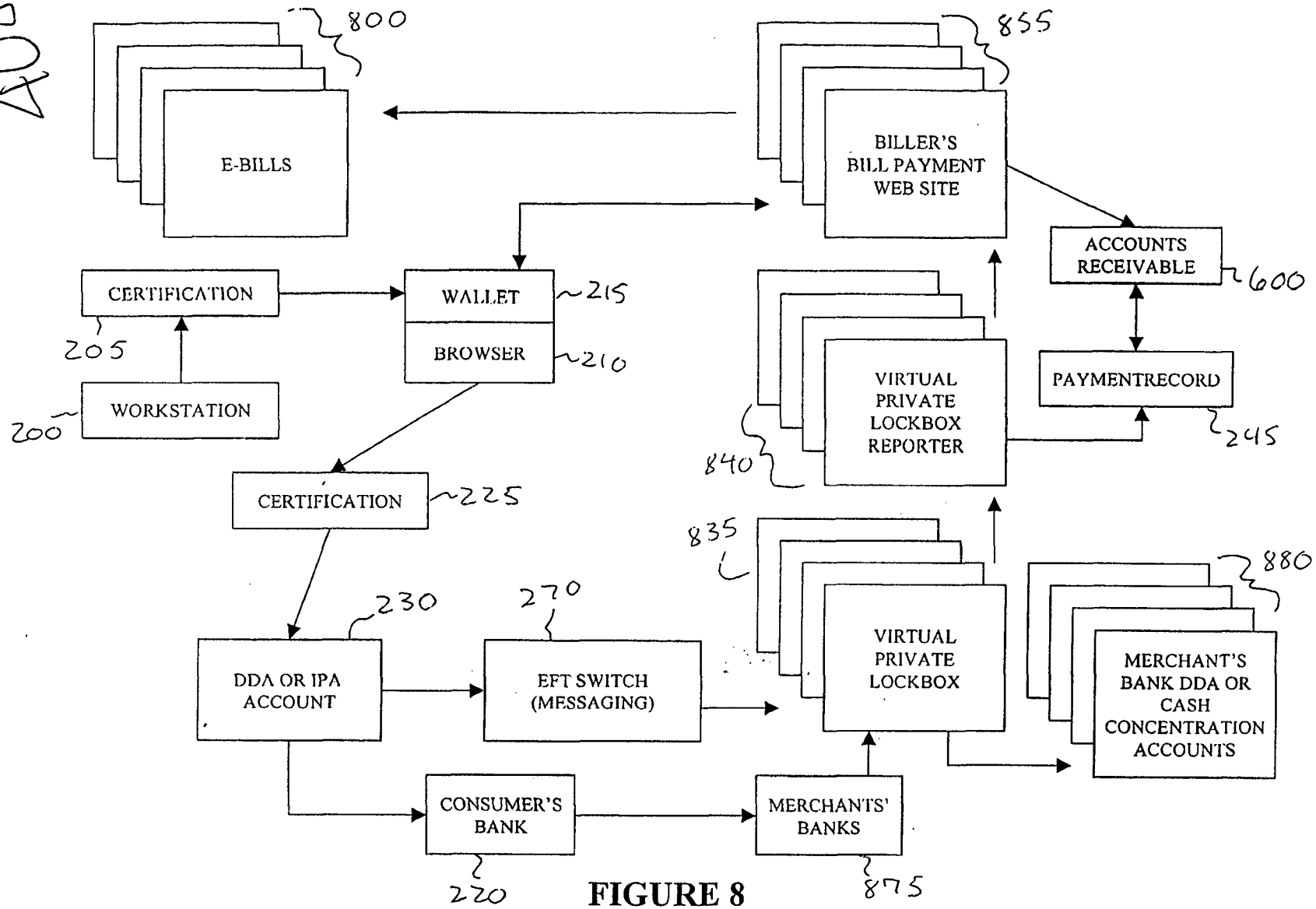


FIGURE 8

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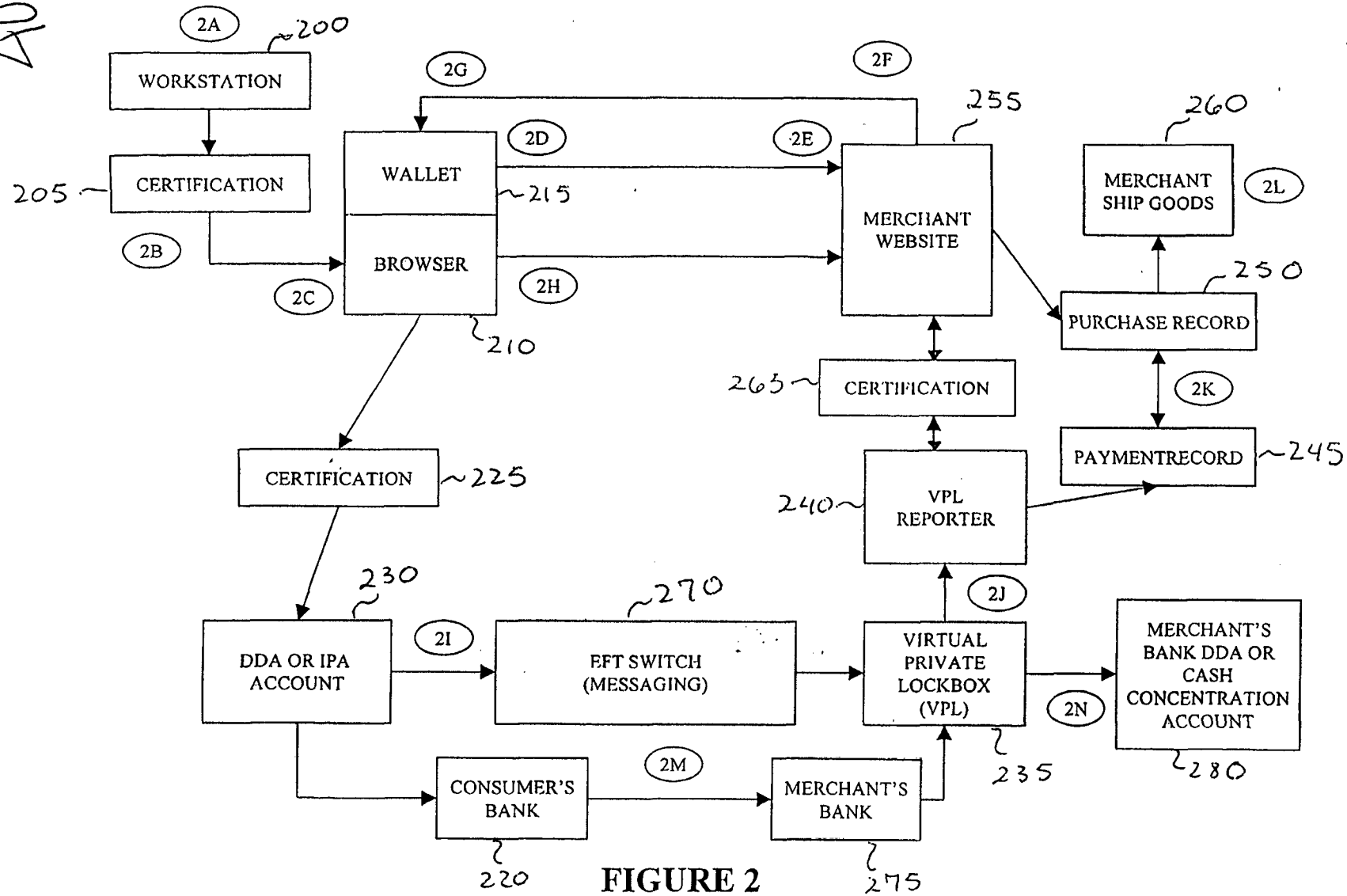


FIGURE 2

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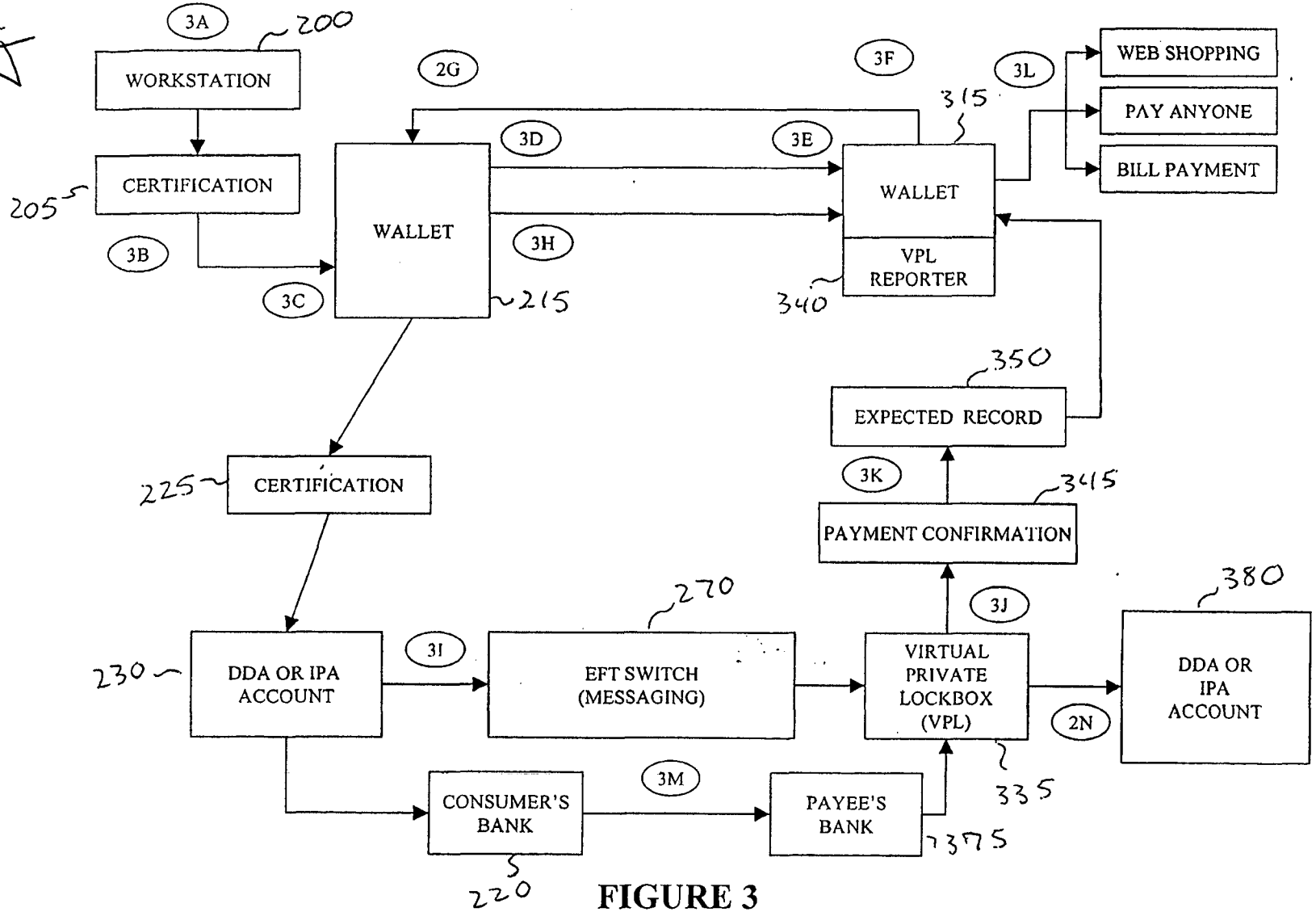
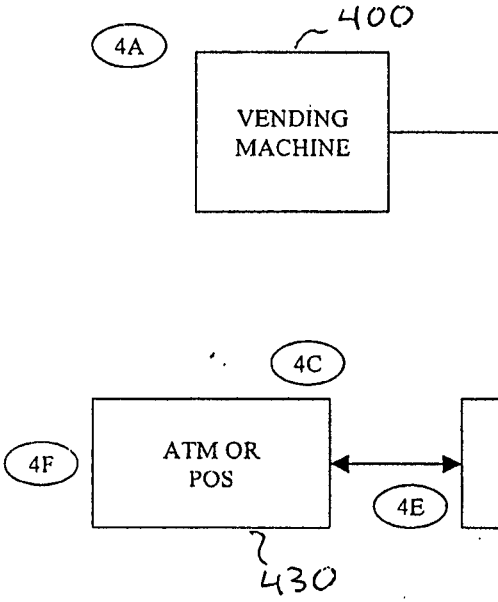


FIGURE 3

60173044.122399


400
4A
VENDING MACHINE
4C
4F
ATM OR POS
4E
430

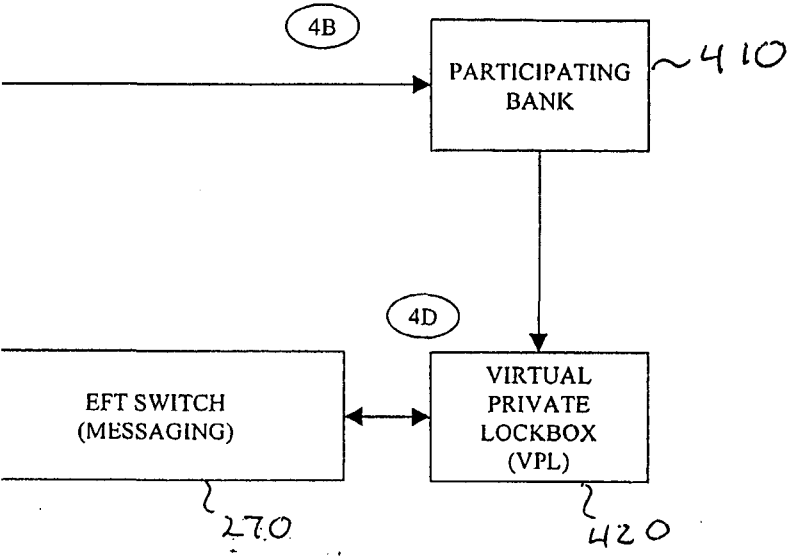


FIGURE 4

017044.122399

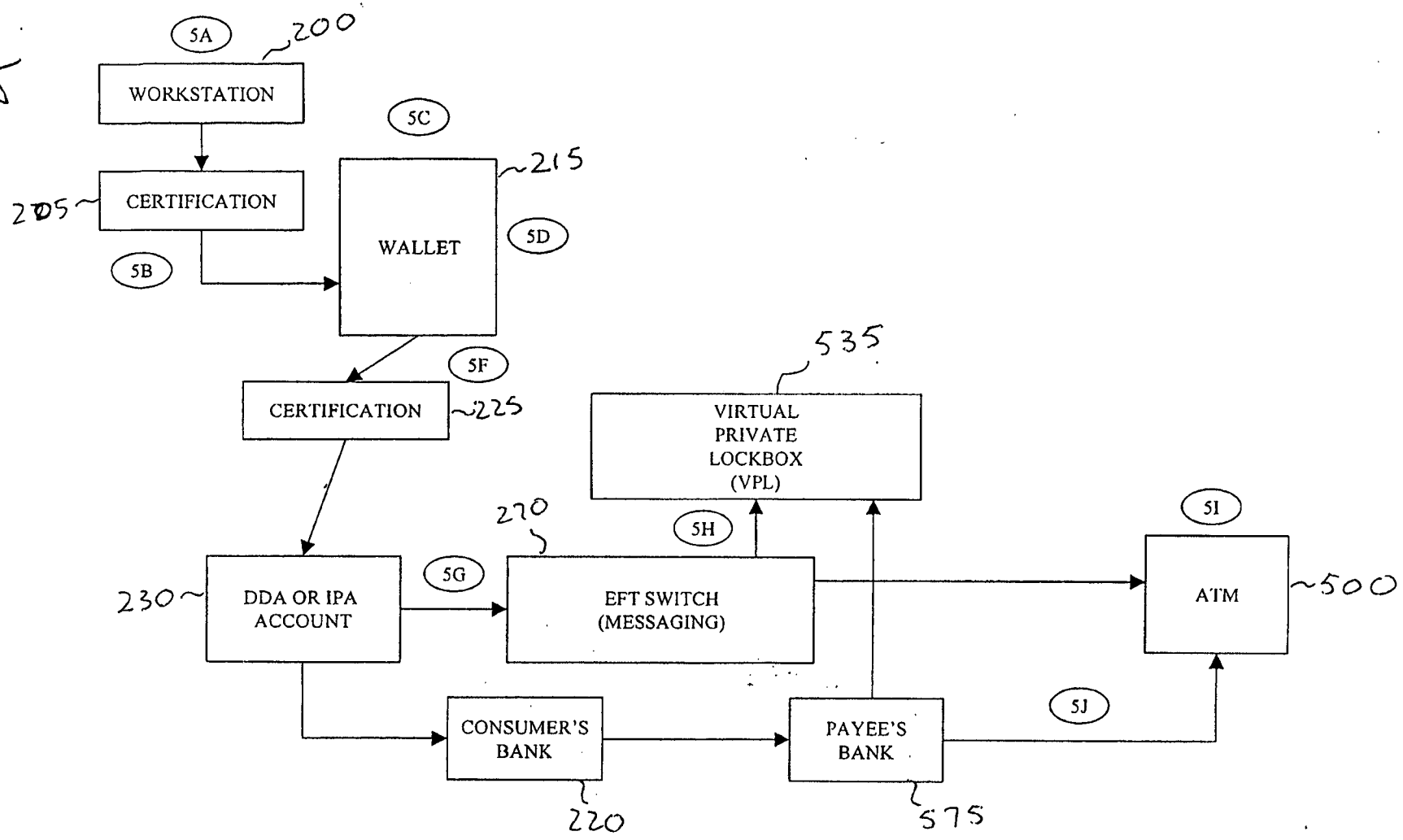


FIGURE 5

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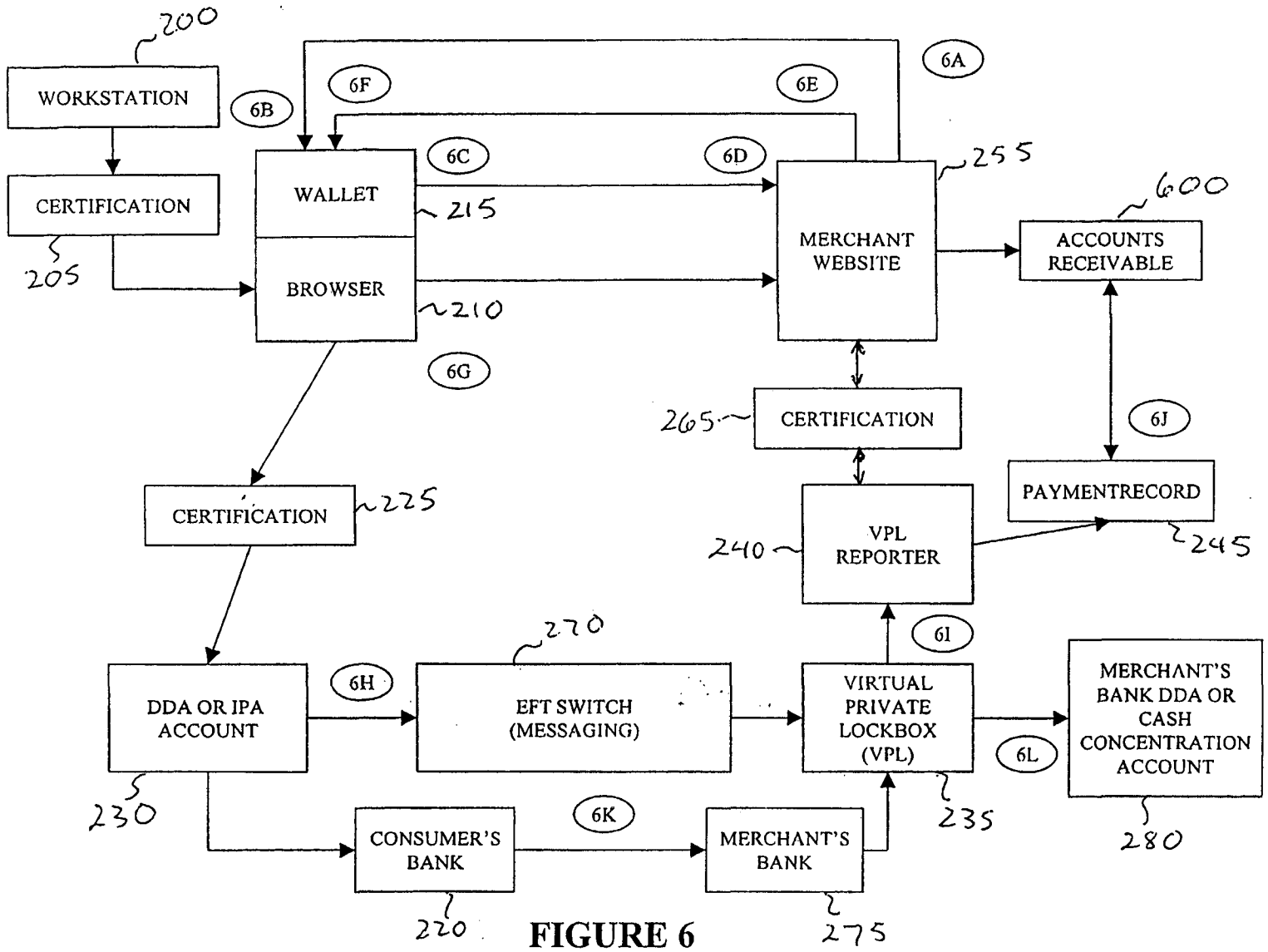

200
WORKSTATION
6B
6F
6E
6A
CERTIFICATION
205
WALLET
215
BROWSER
210
6C
6D
255
MERCHANT WEBSITE
600
ACCOUNTS RECEIVABLE
6G
265
CERTIFICATION
6J
CERTIFICATION
225
PAYMENTRECORD
245
240
VPL REPORTER
270
6I
6H
DDA OR IPA ACCOUNT
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNT
6L
230
235
280
6K
CONSUMER'S BANK
MERCHANT'S BANK
220
275

FIGURE 6

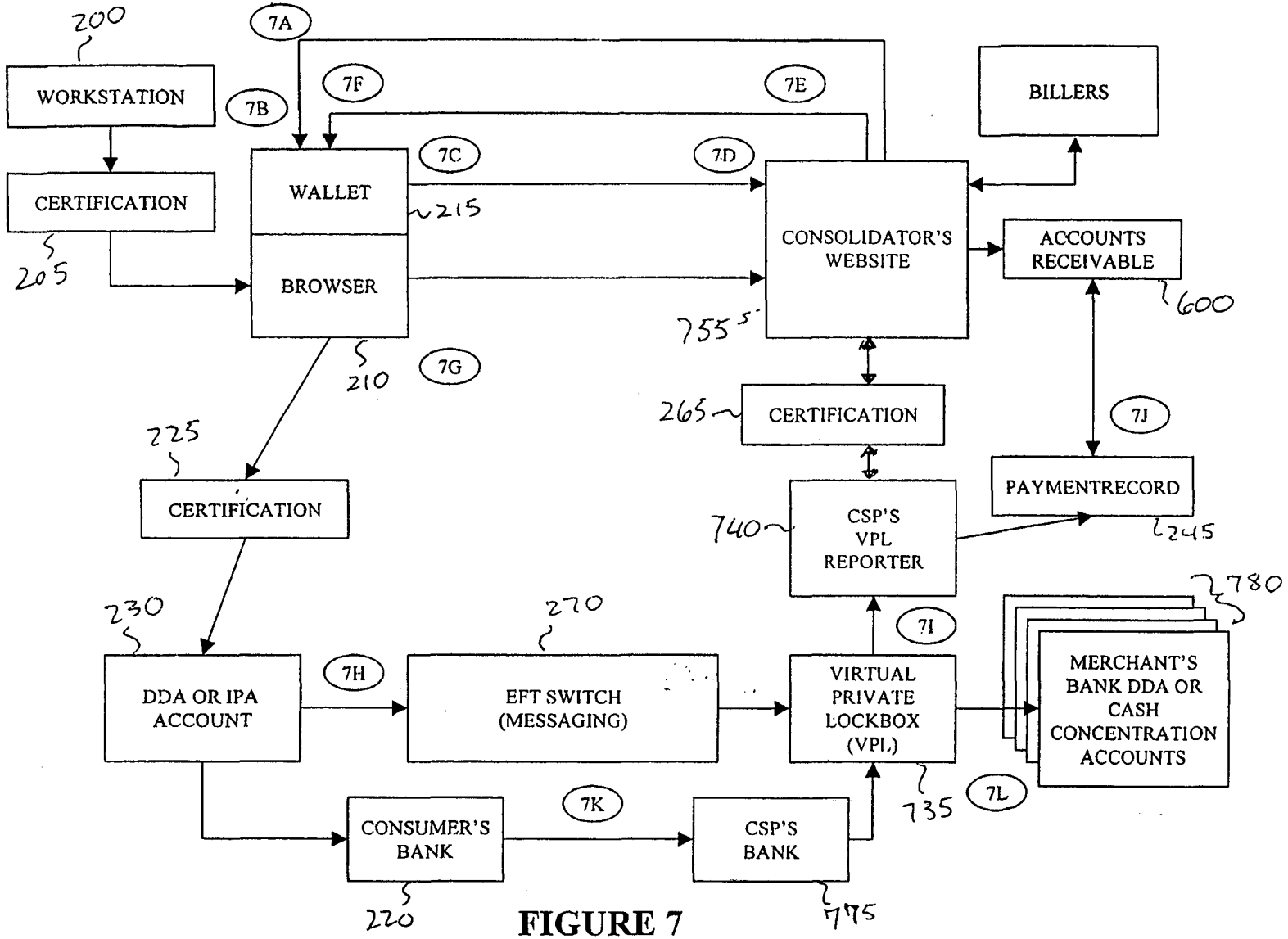
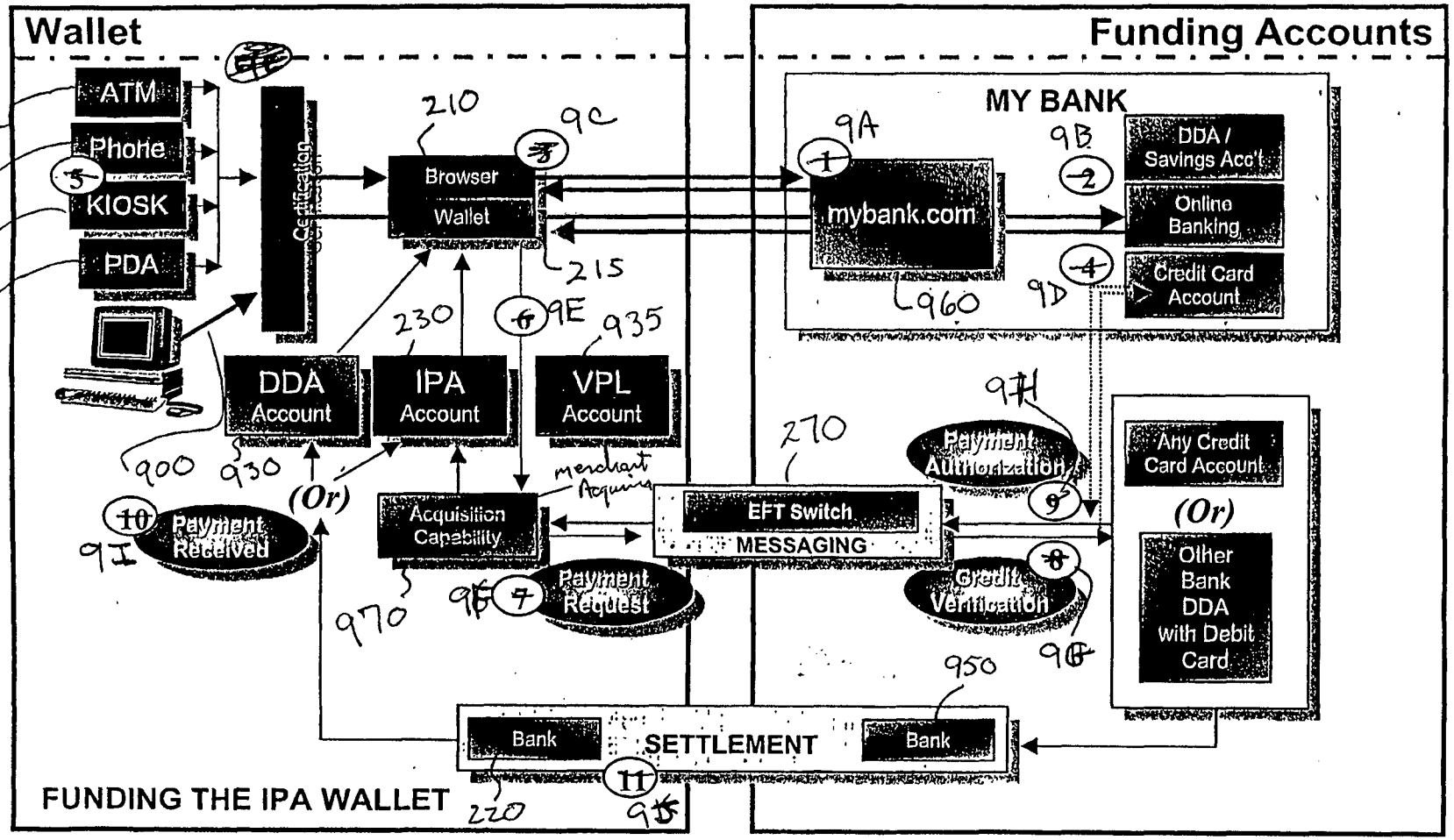


FIGURE 7

60173044.122399

Global *redEcash.net* Model - Funding



THE RIGHT RELATIONSHIP IS EVERYTHING.®

CHASE

A COVERBIND® COVER 1-800-366 ©
3/8" PTO 1683-4 for 61 to 90 sheets

47

LOS ESTADOS UNIDOS DE AMÉRICA

A TODOS AQUELLOS A QUIENES LA PRESENTE LLEGARE:

DEPARTAMENTO DE COMERCIO DE LOS ESTADOS UNIDOS

Oficina de Patentes y Marcas de los Estados Unidos

Mayo 17, 2000.

LA PRESENTE ES PARA CERTIFICAR QUE LA ANEXA A ESTA ES UNA COPIA FIEL DE LOS REGISTROS DE LA OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS DE LOS DOCUMENTOS DE LA SOLICITUD DE PATENTE IDENTIFICADA MÁS ADELANTE QUE SATISFACEN LOS REQUISITOS PARA QUE SE OTORGUE UNA FECHA DE PRESENTACIÓN BAJO 35 USC 111.

SOLICITUD NÚMERO: 60/173,044.

FECHA DE PRESENTACIÓN: Diciembre 23, 1999.

Por la autoridad del

COMISIONADO DE PATENTES Y MARCAS

H. L. JACKSON.

Funcionario Certificador

SELLO EN RELIEVE

CARÁTULA DE SOLICITUD DE PATENTE PROVISIONAL

Esta es una petición para presentar una SOLICITUD PROVISIONAL bajo la 37 CFR 1.53(b)(2).

NUMERO DE EXPEDIENTE	PP/2167-156	Signo (+) en esta casilla	+

INVENTOR(ES)/SOLICITANTE(S)

APELLIDO	NOMBRE	INICIAL MEDIA	RESIDENCIA (CUIDAD Y YA SEA ESTADO O PAIS EXTRANJERO)
O'Leary	Denis		C/O The Case Manhattan Bank 140 East 45th Street, 11th floor New York, NY 10017

TITULO DE LA INVENCIÓN (280 caracteres máximo)

MÉTODO Y SISTEMA PARA PROCESAR PAGOS POR INTERNET UTILIZANDO LA RED DE TRANSFERENCIA ELECTRÓNICA DE FONDOS

DIRECCION POSTAL

Ostrolenk, Faber, Gerb & Soffen, LLP
1180 Avenue of the Americas
New York, N.Y., 10036

ESTADO: NY No. DE ZONA POSTAL: 10036 PAIS U.S.A

PARTES INCLUIDAS DE LA SOLICITUD (verifique todas las que se apliquen)

☐ Especificación No.de Páginas .....45.....

☐ Dibujos No. de Hojas .....9.....

METODO DE PAGO

El comisionado esta autorizado por este medio a cobrar impuestos de presentación y acreditar al No. de cuenta del depósito : 15-0700 Nuestro cheque No. 90459 Incluye para cubrir los derechos de presentación de la Solicitud Provisional	Impuesto provisional de pesentación Cantidad $150.00

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La invención fue hecha por un Agencia del Gobierno de los Estados Unidos o bajo un contrato con una agencia del Gobierno de los Estados Unidos.

☐ **No.**

Presentada Respetuosamente,

FIRMA (ILEGIBLE) **FECHA 12/23/99.**

Nombre mecanografiado o impreso: MICHAEL J. SCHEER

Registro No. 34,425

420

CERTIFICADO DE CORREO EXPRESO

Certifico por este medio que esta correspondencia está siendo depositada con el servicio postal de los Estados Unidos como Oficina de Correo Expreso al destinatario (rótulo de correo # EL 157100335 US) en un sobre dirigido a: Comisionado Asistente de Patentes y Marcas, Washington, D.C., 20231, el 23 de Diciembre de 1999:

Dorothy Jenkins

_____

Nombre de la persona que envía el Correo

FIRMA (ILEGIBLE)

Diciembre 23, 1999

_____

Fecha de Firmado

421

MÉTODO Y SISTEMA PARA PROCESAR PAGOS POR INTERNET UTILIZANDO LA RED DE TRANSFERENCIA ELECTRÓNICA DE FONDOS

SOLICITUD RELACIONADA

Esta solicitud está basada sobre y reivindica prioridad de las solicitudes de patentes provisionales de los Estados Unidos Nos.: 60/132.305, presentada el 3 de mayo de 1999; 60/150.725, presentada el 25 de agosto de 1999; 60/161.300, presentada el 26 de octubre de 1999; y 60/163.828, presentada el 5 de noviembre de 1999, las exposiciones completas de las cuales se incorporan en la presente por vía de referencia.

CAMPO DE LA INVENCIÓN

La presente invención se relaciona en general con métodos para uso de dinero virtual y más en particular con un método mediante el cual un pagador mueve pagos electrónicos hacia un beneficiario utilizando un sistema de Transferencia Electrónica de Fondos.

ANTECEDENTES DE LA INVENCIÓN

Actualmente, existen varios métodos mediante los cuales un consumidor puede pagar electrónicamente por compras hechas en el Internet, tales como tarjetas de crédito, tarjetas de débito no acopladas al sistema, tarjetas de débito de comunicación directa, dinero digital, y tarjetas inteligentes. Cada uno de estos métodos tiene sus propias ventajas y

desventajas. Una tarjeta de débito no acoplada al sistema utiliza el sistema tradicional de tarjeta de crédito para saldar el pago pero no es requerido ningún Número de Identificación Personal (PIN). El uso de una tarjeta de débito de comunicación directa requiere que el consumidor suministre su PIN, y el monto de la compra es debitado desde la cuenta del consumidor instantáneamente. Una desventaja con tarjetas de débito tanto en línea como fuera de línea, desde un punto de vista del consumidor, consiste en la incapacidad de invertir o de repudiar la transacción. En contraste, mediante el uso de una tarjeta de crédito, el consumidor en una fecha posterior puede invertir la transacción (por ejemplo, si los artículos comprados no son despachados al consumidor). Se predice que tarjetas de crédito serán el punto de entrada directa dominante (POS) de selección de pago de venta durante por lo menos los próximos 5 años. Aunque nuevos mecanismos de pago por Internet han estado surgiendo rápidamente, los consumidores y comerciantes han estado conduciendo acertadamente un volumen creciente de comercio utilizando la funcionalidad de la tarjeta de crédito básica. Ninguno de los esfuerzos emergentes hasta la fecha han adquirido más que un arraigo precario en el mundo mercantil y continúa desarrollándose momentum a favor de las tarjetas de crédito.

En el tiempo actual, existen dos segmentos grandes de mercado para un sistema de pago de comunicación directa. En primer lugar, pagos de alto volumen de bajo precio de consumidores a proveedores de productos o servicios intelectuales digitales en línea tales como materiales escritos,

música, software o juegos. Estos pueden ser o "pequeños empresarios, individuales o pequeños comerciantes que comercian sus productos directamente a los consumidores, o grandes intermediarios, ya sean comerciantes tradicionales al detal o sitios de subasta que agregan consumidores y vendedores para facilitar las ventas. Un segundo segmento grande de mercado implica pagos electrónicos desde consumidores a otros consumidores.

La oportunidad comercial continuará haciendo explosión como lo que se piensa actualmente a medida que el Internet continúa expandiéndose. En general, el Internet es considerado como un Computador Personal (PC) y basado en el uso de teléfono. No obstante, ese modelo está cambiando rápidamente para incluir comunicación de banda ancha a través de enlaces terrestres tales como Línea Digital de Suscriptor (DSL), comunicación inalámbrica y cable de dos vías. El número final de los dispositivos también está expandiéndose para incluir teléfonos celulares con pantallas de video así como también televisión interactiva. Asistentes Personales Digitales (PDAs) y cabinas con acceso de Internet. Estos dos cambios solamente servirán para aumentar el número de puntos de extremo y consumidores quienes tendrán una necesidad de capacidades de alto volumen de bajo costo de pago.

En general, ventas al consumidor al detal así como también ventas de negocio a negocio en el Internet se proyectan que crezcan

exponencialmente. La mayor parte de los pagos por estas ventas se esperan que sean hechos con tarjetas de crédito, las cuales son ampliamente disponibles y poseídas, son soportadas por una infraestructura establecida y proporcionan a los comerciantes y consumidores un alto grado de seguridad de pago y recibo. Aunque existen claras diferencias en las maneras en las cuales los consumidores utilizan tarjetas de crédito, tradicionalmente, los consumidores las han utilizado para compras de mas alto valor. En años recientes, las tarjetas de débito han entrado al mercado y han sido utilizadas como reemplazos de efectivo y de cheques, reemplazando transacciones de volumen de mas bajo valor por compras de productos consumibles tales como alimento y gasolina.

Además de los inconvenientes descritos anteriormente, la tarjeta de crédito (y las tarjetas de débito utilizadas en la modalidad fuera de línea) tienen un costo relativamente elevado que incluye una remuneración de procesamiento más un descuento de comerciante de 1,4% y hacia arriba. Los estipendios relativamente altos soportan el modelo de negocio de tarjeta de crédito. Aunque las tarjetas de crédito y de débito pueden continuar siendo una opción de pago practicable para comerciantes que venden artículos de rótulo relativamente alto por el Internet, las tarjetas de crédito y de débito no son económicamente viables para compras de artículos de costo más bajo. Para artículos de costo más bajo, las remuneraciones de procesamiento de transacción relativamente altas mas el resultado de descuento, en la remuneración del procesamiento de transacción consumen

una proporción relativamente alta del ingreso total generado por la venta del producto. Estas características de un artículo de bajo costo se prestan a una solución de pagos de bajo costo que es garantizada, aunque no requiere que el beneficiario soporte el gravamen y riesgo de autenticación.

El Internet está generando un modelo directo en el cual los industriales de productos o servicios son capaces de tratar directamente con los consumidores. Este modelo tiene varias implicaciones para el proceso de pago. En primer lugar, eliminando el intermediario, el modelo directo está generando intensa competencia de precios, llevando los industriales los márgenes más estrechos. Esta competencia origina la necesidad de reducir al mínimo todos los costos especialmente costos de pago de procesamiento. En segundo lugar, el Internet hace posible el desarrollo de números grandes de productores independientes que "instalen su oficio" en el Internet e inmediatamente tengan acceso a grandes números de consumidores. En tercer lugar, un número grande y creciente de productos intelectuales tales como publicaciones, música, video, software, juegos,son más eficientemente distribuidos digitalmente por el Internet más bien que a través de medios físicos tradicionales (periódico o disco). Aunque esta tendencia ya se ha iniciado, a medida que dispositivos de anchura de banda más alta y crecientemente sofisticados entran al mercado, se espera que crezca significativamente. Muchas de estas adquisiciones tendrán las siguientes características: bajo costo para el consumidor, y la capacidad de comprar

trabajos individuales (es decir, una canción, un video, un artículo, un juego). Estas características requieren una forma de pago que tiene un bajo costo.

Combinando estas dos tendencias - distribución directa de comerciante a consumidor desde "industriales" independientes y la capacidad de distribuir productos digitalmente – un nuevo mundo mercantil ha surgido por bajo precio, alto volumen, pagos de tiempo real con seguridad de pago tanto para consumidores como para productores. Grandes intermediarios, tales como existen en comerciantes en línea y sitios de subasta se beneficiarán también de un dispositivo de pago de bajo costo por alto volumen, pagos económicos por todas las mismas razones mencionadas anteriormente. Los comerciantes en línea actualmente están enfrentando una variedad de problemas que incluyen un bajo volumen de adquisiciones en línea con relación al número de observadores del lugar; un alto volumen de respaldos de carga para adquisiciones en línea; sistemas no integrados de "obra de fragmentos" para procesamiento de pago; altas proporciones de fraude y altas remuneraciones de procesamiento. Todos estos factores actúan para deprimir el número potencial de clientes quienes están comprando en línea confortablemente así como también deprimiendo el provecho de los comerciantes en línea.

Además, hasta la fecha, no existe manera eficiente para que los consumidores efectúen pagos a otros consumidores utilizando el Internet. Todas las formas tradicionales de intercambio de persona a persona

incluyen el cambio físico de efectivo o de cheques más bien que un intercambio digital de tiempo real de valor. Además, el alto costo de transferencias al detal por vía alámbrica (es decir, Western Union ™) es de costo prohibitivo para una porción significativa de la sociedad.

Pagos de Banco de Liquidación Automatizado (ACH) han principado a ser utilizados con respecto a pagos hechos a través del Internet. Estos tipos de transacciones típicamente implican pagos hechos con respecto a emprestitos, contratos de seguros y servicios públicos. Se predice que pagos de ACH no serán ampliamente desplegados hasta Punto De Venta (POS) en línea, por dos razones. En primer lugar, una transacción de ACH no proporciona autorización de transacción, y en segundo lugar la autenticación requiere una relación preexistente entre el consumidor y el comerciante. Además pagos de ACH han de ser recibidos depositados y liquidados antes de que los fondos se encuentren disponibles. En contraste a transacciones de ACH, tarjetas de crédito y tarjetas de débito fuera de línea requieren autorización pero no autenticación. De manera similar, débito de entrada directa requiere autenticación (es decir, una autenticación PIN u otra autenticación).

Dos inconvenientes significativos con algunos o con todos los modelos anteriores para pagos POS de Internet consisten en que: 1) debe existir una relación preexistente entre el consumidor y el comerciante; y 2) el consumidor está obligado a proveer al comerciante con la cuenta de él

o de ella y/o el PIN. El primer inconveniente de algunos de los modelos anteriores, prácticamente no puede ser superado puesto que es imposible para un consumidor tener relaciones preexistentes con todos los comerciantes potenciales que conducen negocios en el Internet. Con respecto a la disposición de la cuenta del consumidor y el número de PIN respecto al Internet, aunque compañías de orden por correo han estado operando en esta manera durante años, muchos consumidores se sienten incómodos en cuanto a proporcionar electrónicamente sus números de cuenta y de PIN a extraños por el Internet.

La Figura 1, ilustra el modelo convencional de transacción de débito/crédito. En este modelo, si el consumidor 100 desea comprar un disco compacto (CD) de un minorista 110 de red, el consumidor 100 transmite electrónicamente su número de tarjeta de crédito o de débito y/o el PIN al minorista de red 110. Al recibo de esta información desde el consumidor 100, el minorista 110 somete la transacción propuesta a su banco 120 para aprobación. El banco 120 de comerciante entra entonces en contacto con el banco 130 (banco del emisor) el cual expide la tarjeta de débito/crédito al consumidor 100. El emisor 130, verifica el balance del consumidor en la tarjeta y aprueba o rechaza la transacción propuesta. Esta aprobación o rechazo es transmitida desde el banco emisor 130 hacia atrás hacia el banco 120 del comerciante el cual informa entonces al minorista de red 110 respecto a la aprobación o rechazo. Si el cargo a la tarjeta de débito/crédito

fue aprobado la transacción es completada por el minorista 110 de red despachando los artículos al consumidor 100.

Algo del mismo inconveniente descrito anteriormente con respecto a compras por Internet se aplica igualmente al pago electrónico de facturas. El primer inconveniente que requiere una relación preexistente entre el consumidor y el beneficiario de la factura no es de una incumbencia tan grande puesto que esta relación más probablemente ya existe entre el consumidor y el beneficiario (por ejemplo, la compañía telefónica, cablegráfica o de servicios públicos). El segundo inconveniente es que el consumidor proporcione al beneficiario la cuenta de él o de ella y/o el PIN todavía permanece como de incumbencia con el pago electrónico de facturas. Aunque el fraude es menos de un problema para pago de facturas, puesto que el consumidor presumiblemente tiene relaciones regulares con el beneficiario, algunos consumidores todavía consideran la disposición del beneficiario al menos con su número de cuenta de él o de ella como una disminución en la intimidad del consumidor.

RESUMEN DE LA INVENCIÓN

La presente invención representa un nuevo modelo para efectuar pagos electrónicos que refuerza plataformas de legalidad, infraestructuras convencionales de pago y tecnología con base en red actualmente disponible para hacer posible comercio electrónico en el mundo mercantil tanto virtual como físico. El concepto proporciona un método seguro,

fidedigno y firme que permite a los usuarios (consumidores) hacer compras en el Internet, pagar facturas, y pagar a alguno virtualmente en cualquier parte, todo sin que el consumidor tenga que compartir información de número de cuenta con el beneficiario. Los comerciantes reciben confirmación inmediata de pago a través de las redes de Transferencia Electrónica de Fondos (EFT) de tal manera que ellos pueden despachar su producto con confianza. La presente invención hace posible adicionalmente transacciones financieras económicas, permite la creación de "dinero efectivo de red" así como también suministra facilidades para servicio del cliente y registro de actuaciones.

Existen cinco componentes estructurales principales para el sistema de la presente invención: una Billetera digital; una cuenta de Internet de pago a quien quiera (IPA); una Caja con Cerradura Privada Virtual (VPL) y un Reporter VPL asociado; las redes de EFT existentes, y una tarjeta de dinero efectivo. La Billetera es una aplicación de software que aumenta cualquier navegador de Internet con una capacidad de comercio electrónico. El software de Billetera ocupa un asiento al frente de y proporciona y portal seguro para acceder (enlazarse a) ya sea la Cuenta de Depósito de Demanda (DDA) del usuario o una cuenta de IPA. Los consumidores utilizan la Billetera para respaldar su cuenta, comprar en la red, pagar facturas, pagar a quien quiera, almacenar recibos electrónicos de historia de transacción y verificar su reciente actividad de Billetera. La Billetera

proporciona a los consumidores una manera digna de confianza, segura, y conveniente para conducir transacciones financieras por el Internet.

La mayoría de billeteras electrónicas de la técnica anterior en el Internet son actualmente utilizadas principalmente como un vehículo de conveniencia que proporciona solamente un método de almacenar información de número de cuenta. La Billetera de la presente invención no solamente almacena información de cuenta y despacho, sino que también conecta a una DDA, o una IPA, la cual contiene una cantidad de dinero previamente respaldada. La Billetera crea de esta manera una forma de dinero efectivo virtual que está seguro y garantizado. La Billetera contiene además una característica de recibo, de tal manera que todas las compras y pagos pueden ser revisados a petición. La Billetera enriquece la experiencia del consumidor en comercio electrónico eliminando el proceso tedioso de llenar campos extensos de pago y de envío puesto que esto es hecho de manera automática. Los comerciantes se benefician también de las características de pago y despacho, puesto que la investigación indica que la mayoría de compras de comercio electrónico son abandonadas en el punto de venta debido a la indisposición de los consumidores de completar formas extensas o de proveer números de tarjetas de crédito personales.

La cuenta IPA es una DDA de finalidad especial con funcionalidad limitada para financiar y recibir pagos electrónicos.A los fondos solamente se puede tener acceso electrónicamente (a través de un PC, tarjeta de lector,

DDA, TV interactiva y tecnología de teléfono celular, por ejemplo). Esta restricción proporciona un nivel agregado de protección al consumidor porque todas las transacciones deben pasar a través de la red segura de EFT.

De manera similar a una IPA, la VPL es una cuenta DDA de función limitada. Mientras a una IPA se puede tener acceso electrónicamente, una VPL es construida con una red de EFT de funcionalidad de "recibo solamente" para que un comerciante (u otro individuo) reciba pagos electrónicos a través de la EFT. Por lo tanto, una VPL es una dirección segura que puede ser provista al público como un medio de recibir fondos. Estos fondos son entonces pasados rápidamente de manera automática ya sea a la cuenta DDA correspondiente del propietario o a la cuenta IPA, de preferencia una vez al día. Tal como se describirá adicionalmente adelante, existen varios tipos de cuentas VPL de acuerdo con la presente invención: uno para consumidores, uno para comerciantes y uno está ligado a una tarjeta de dinero en efectivo. La cuenta VPL vinculada a una tarjeta de dinero en efectivo no lleva hacia una cuenta separada, ni está articulada a una cuenta IPA o a tecnología de Billetera. Más bien, esta tarjeta de VPL es una cuenta de recibo solamente que puede ser debitada solamente mediante el uso de la tarjeta de dinero en efectivo.

El Reportero VPL es un portal para observar la cuenta VPL. Aunque es similar a la Billetera descrita anteriormente, la funcionalidad de un

Reportero VPL difiere de la de una Billetera. El Reportero VPL es una herramienta utilizada principalmente por comerciantes el cual proporciona informes de transacciones de entrada directa, de tiempo real, y reconcilia registros de cuentas por cobrar/adquisición contra registros de pagos de EFT que entran. Además, la historia de la transacción de la VPL puede ser archivada y recuperada mediante un motor de investigación de pago en el Reportero de VPL. Esto provee al comerciante con poderosas herramientas de manejo de datos, de servicio al cliente, y satisfacción de órdenes (control de cadena de almacenamiento, embarque, suministro) en la yema de sus dedos. Compras con tarjeta de crédito en la red de acuerdo con métodos de la técnica anterior no están conectadas a un programa de manejo de dinero en efectivo. En contraste con estos sistemas de la técnica anterior, la VPL conectada con el Reportero de VPL, ofrece una oportunidad completa de comprar y de manejo de efectivo para un comerciante. La combinación de VPL y de Reporter de VPL provee a un comerciante de una verificación instantánea de recibo de pago, cuentas funcionalmente por cobrar, facilitación de satisfacción de orden, facilitación de cadena de control de inventario/suministro y capacidad de explotación de datos.

El Reporter de VPL es un nuevo producto flexible que ofrece confirmación inmediata de pago, retención de conciliación y registro de tal manera que los comerciantes pueden seguir la pista de las ordenes de compra contra pagos reales en tiempo real. Toda transacción de la VPL puede ser almacenada, investigada, y recuperada. Esta funcionalidad de

archivo/recuperación es el instrumento perfecto para servicio del consumidor y explotación de datos. El Reporter de VPL ofrece todas las características anteriores sin necesidad de comprometerse activamente en administración de fondos tal como se requiere con la técnica anterior.

Utilizando las estructuras descritas anteriormente, los métodos de la presente invención permiten a los consumidores y comerciantes conducir operaciones de compra seguras y económicas en el Internet, pagar a quien quiera en comunicación directa, telegrafiar a alguien fondos en comunicación directa, pagar facturas electrónicamente en comunicación directa y aun utilizar una tarjeta de dinero en efectivo articulada. Los métodos y estructuras d ela presente invención hacen posible comercio electrónico tanto en ambiente mercantil virtual como físico a través del uso de plataformas de legado, la infraestructura de pagos convencionales y la tecnología a base de red actualmente disponible.

La presente invención además resuleve muchos, sino todos, de los problemas de la técnica anterior descritos previamente. Actualmente, todas las transacciones del Internet utilizan tecnología de "tracción" en la cual un comerciante debe recibir el número de cuenta del consumidor (y en algunos casos el número de espigas) con el fin de completar un pago. Los métodos de pago de la presente invención utilizan inversamente la tecnología de "tracción" en la cual los consumidores suministran un crédito de EFT a la

cuenta del comerciante, sin tener que suministrar su propia información sensible de cuenta.

La presente invención proporciona un nivel mejorado de seguridad puesto que ninguna información financiera sensible es reservada en el Internet. Todas las transacciones financieras son llevadas a cabop a través de la red segura EFT. Este método de la presente invención proporciona a los consumidores y comerciantes la comodidad de que sus transacciones son tanto seguras como privadas. Además, puesto que las confirmaciones de pago son recibidas inmediatamente a través de la red de EFT, los comerciantes pueden permanecer seguros de que los fondos del consumidor son "buenos" antes de que la transacción de adquisición sea terminada (es decir, antes de que los artículos sean liberados (despachados) al consumidor).

A los fondos en la cuenta IPA de la presente invención solamente se puede tener acceso electrónicamente (mediante PC, PDA, lector de tarjeta, TV interactiva, cabina de Internet...). Esta restricción suministra un nivel adicional de protección al consumidor, porque todas las transacciones deben pasar a través de la red inexpugnable de EFT. LA VPL de la presente invención es construida con red de EFT de funcionalidad de "recibo solamente". La única manera de que los fondos puedan ser movidos fuera de la VPL es mediante un barrido hacia una cuenta correspondiente de DDA

o IPA. Por lo tanto una VPL es una dirección segura que puede ser provista a público como un medio de recibo de fondos.

La presente invención proporciona ventajas económicas significativas respecto a los sistemas y métodos de la técnica anterior. La mayoría de la tecnología requerida para implementar la presente invención ya existe lo cual determina costos de iniciación reducidos para una institución financiera que practique la presente invención. Los pagos hechos de acuerdo con los presentes métodos pasan a través de un conmutador preparado cuidadosamente de EFT establecido lo cual da como resultado un costo bajo de transacción. Los mecanismos de pago de la técnica anterior no son óptimos para procesar pequeñas transacciones de dinero. No obstante, la arquitectura eficiente de bajo costo de la presente invención soporta pagos de cualquier tamaño y es perfecta para compras de bajo costo. Esta arquitectura soporta la necesidad creciente de micropagos de Internet para mercancías tales como artículos en línea y archivos musicales, aunque tolera también pagos de gran valor.

Mediante las estructuras y métodos de la presente invención, han sido superadas las dos desventajas más significativas de los métodos de compras de la técnica anterior descritos anteriormente. Primero que todo, el consumidor ya no está suministrando su información financiera confidencial a extraños por el Internet. Más bien, el consumidor está tratando

directamente con su propia institución en la que confía, el banco. Además, ninguna relación preexistente ha de existir entre el cliente y el comerciante.

Para el comerciante, la presente invención reduce significativamente el costo de transacción en comparación con el uso de tarjetas de crédito. El método también proporciona una reducción en pérdidas por fraude y crédito, aunque la finalidad de la transacción elimina virtualmente el procesamiento de disputa y cargo contrario desde el punto de vista de la institución financiera.

La presente invención no está limitada al caso de un consumidor que haga compras de comerciantes de Internet. El método tiene adicionalmente aplicabilidad más amplia al proveer la capacidad para que cualquiera con una cuenta en una institución financiera transfiera fondos a otro cualquiera quien también tenga una cuenta en la misma o en una institución financiera diferente. La característica de la Billetera de pagar a cualquiera permite a los consumidores telegrafiar virtualmente fondos instantáneamente sin el costo de honorarios actuales de la acción de telegrafiar.

BREVE DESCRIPCIÓN DE LOS DIBUJOS

Para las finalidades de ilustrar la presente invención, se muestra en los dibujos una forma que es actualmente preferida, entendiéndose no obstante que la invención no está limitada a la forma precisa ilustrada por el dibujo, en el cual:

La Figura 1 ilustra el método de la técnica anterior del procesamiento de pago por Internet utilizando tarjetas de débito y/o tarjetas de crédito;

La Figura 2 representa una primera modalidad de la presente invención que hace posible la compra por Internet;

La Figura 3 representa una modalidad de pagar a alguien, de la presente invención;

La Figura 4 ilustra una modalidad de tarjeta de prepago en efectivo de la presente invención;

La Figura 5 ilustra una modalidad de telegrafiar a alguien, de la presente invención;

La Figura 6 ilustra una modalidad directa de facturador, de pago de factura, de la presente invención;

La Figura 7 ilustra una modalidad de pago de factura, de consolidación de proveedor de servicios, de la presente invención;

La Figura 8 ilustra una modalidad de pago de factura, de consolidación de cliente, de la presente invención; y

La Figura 9 ilustra una estructura y proceso para provisión de fondos a una Billetera de Cuenta de Pago de Internet.

DESCRIPCIÓN DETALLADA DE LA INVENCIÓN

En contraste con el modelo de pago de tarjeta de crédito, de débito de entrada directa y de fuera de línea y otros modelos de pago existentes actualmente, una de las características originales del método de la presente invención consiste en el flujo de la instrucción de pago y el pago que sigue.

En los modelos de tarjeta de crédito, de débito en línea y fuera de línea, un cliente proporciona al comerciante con una instrucción que autoriza al comerciante a recolectar fondos desde la cuenta del banco del consumidor. Según el sistema, esta instrucción de pago da como resultado un pago garantizado del cliente en el caso de un débito de comunicación directa más bien que una espera prolongada por fondos (tal como en el caso de un cheque) o algo entre tanto en el caso de una tarjeta de débito y crédito fuera de línea. La diferencia entre los modelos de la técnica anterior y el modelo de la presente invención puede ser descrita como la diferencia entre un modelo de "tracción" y un modelo de "impulsión". En los modelos convencionales de hoy en día, el comerciante "tracciona" el pago desde la cuenta del consumidor, en tanto que en la presente invención el cliente "impulsa" el pago a la cuenta del comerciante.

La Figura 2 ilustra una primera modalidad de la presente invención en la cual un consumidor puede efectuar sus compras por Internet. La Figura 2 ilustra adicionalmente los principales componentes estructurales de la presente invención. El elemento 200 representa el dispositivo a través del cual el consumidor tiene acceso al Internet. En una modalidad preferida, la estación de trabajo 200 es un computador Personal (PC) cargado con un navegador 210 de Internet tal como Netscape ™ Navigator ™ o Microsoft ™ Internet Explorer™. En modalidades alternativas, el usuario puede tener acceso al Internet utilizando cualquier dispositivo listo de Internet tal como una máquina ATM capacitada por red o un Asistente Digital Personal (PDA)

tal como un Palm Pilot™, un teléfono celular o una TV interactiva. La presente invención no está limitada por ningún dispositivo físico particular y puede emplear cualquier dispositivo que proporciona acceso al Internet. Por ejemplo, una cabina pública de Internet que proporcione acceso al Internet puede ser utiliza para practicar la presente invención.

A medida que el usuario tenga acceso al Internet, una Billetera 215 está unida a la sesión del usuario. La Billetera 215 puede ser cargada descendentemente e instalada desde un sitio de red. Utilizando tecnología de billetera delgada, la Billetera 215 reside en un servidor de capa hospedante y el usuario tiene acceso a la Billetera 215 a través de un sitio de red o un botón dispuesto en el navegador 210. Además del acceso basado en PC según se describió anteriormente, la Billetera 215 puede ser descargada a diferentes dispositivos distintos de PC tales como dispositivo PDA, teléfonos celulares, y TV interactiva. El consumidor puede tener acceso a la Billetera 215 mientras registra sobre el Internet seleccionando un botón de la Billetera 215 sobre la barra de herramientas del navegador 210, o seleccionando el icono de Billetera 215 en el sitio de red del comerciante. Para dispositivos que no son PC, la Billetera 215 puede ser activada a través de una aplicación separada, un enlace de navegador, o a través de un sitio de red garante.

El registro del usuario en la Billetera 215 es asegurado y encriptado para proteger la confidencialidad de la información financiera asociada con la

operación de la Billetera 215. Una vez que se tenga acceso, una ventana que contenga la Billetera 215 es lanzada en la estación de trabajo 200 y permanece abierta durante la sesión del usuario. La ventana de la Billetera 215 tiene la capacidad de comunicarse con otras ventanas abiertas de navegador.

Como una de sus funciones principales, la Billetera 215 sirve como el portal para una Cuenta de Pago de Internet (IPA) o una cuenta de DDA 230 descrita adelante con mayor detalle. En una modalidad preferida, la Billetera 215 almacena los siguientes tipos de información: información de llenado de la forma tal como números de la tarjeta de crédito, números de la tarjeta de débito, direcciones de embarque, direcciones alternativas de embarque, cuentas frecuentes de aviso de distribución en masa, descuentos para socios (por ejemplo, con AAA, AARP), programas de fidelidad y direcciones de correo electrónico; información de descuento tal como cupones electrónicos, descuentos y certificados de gastos específicos de negociantes; e información de conveniencia tal como VPL # pagada frecuentemente (descrita adelante), cuentas de pago de facturas, recibos, marcadores de libros de comercio electrónico, listas de compras, y la carpeta preferida de descarga sobre el impulso activo local del usuario.

Utilizando la información anterior la Billetera 215 llena automáticamente formas electrónicas de compra del comerciante con la dirección de embarque del usuario, dirección de correo electrónico, números

de descuento, etc. La Billetera 215 soporta efectivo virtual (IPA/DDA) así como también pagos de tarjeta de crédito y de débito. Al recibo de un mensaje electrónico de compra desde un lugar de red de comerciante según se describirá adicionalmente adelante con respecto al método de la Figura 2, el usuario de la Billetera 215 es capaz de: 1) aprobar una compra; 2) iniciar el pago; 3) generar una confirmación de compra que será transmitida al sitio de red del comerciante; y 4) generar un recibo que será almacenado. El usuario de la Billetera 215 recibe un mensaje de confirmación que indica que no se ha hecho ninguna compra si no se ha finalizado una compra. Las etapas 3-4 pueden tener lugar en sucesión o simultáneamente.

La Billetera 215 incluye una característica de "Suspensión Temporal" debido a lo cual las peticiones de compra no aprobadas por un usuario de la Billetera 215 durante un lapso fijado de tiempo (por ejemplo 10 minutos) serán invalidadas. Por pagos "Pagar A Cualquiera" como se describe adicionalmente con respecto a la Figura 3 adelante, la Billetera 215 soporta un período de cancelación definido del usuario (por ejemplo 30 minutos) durante el cual el usuario puede anular una transacción. Además, la Billetera 215 incluye fijaciones parentales de control para respaldar la cuenta, limitar el valor de la transacción y para bloquear sitios no aprobados.

Un número único de transacción es incluido en cualesquiera de los mensajes de pago hacia y desde la Billetera 215 y estos mensajes son almacenados por la Billetera 215 para revisión y verificación contable por el

Usuario. La Billetera 215 sirve como interfase con el Reporter VPL descrito adelante, el cual tendrá acceso a todas las transacciones archivadas. Las transacciones son almacenadas para verificación contable así como también para finalidades de recuperación de desastres. La Billetera 215 permite al usuario observar todas las historias de transacciones incluyendo recibos y mensajes. Estos detalles históricos son almacenables por fecha, función (pago de facturas, pago a cualquiera, hacer compras, etc.), cantidad, pagos iniciados o recibidos, negociante, etc.

Como se describe adicionalmente adelante, los pagos de Billetera 215 a una Caja de Cerradura Privada Virtual (VPL) 235 incluye el número VPL de comerciante, el nombre del usuario de la Billetera 215 (si se requiere) y un número único de transacción. La Billetera 215 puede hacer pagos repetidos (diariamente, semanalmente, etc.) así como también pagos programados (en un día específico de calendario o en un número específico de días). Si la Billetera 215 está vinculada a una cuenta 230 de DDA o IPA, débitos de DDA tales como cheques, cheques retornados, pagos de ACH, etc., no son cargados contra fondos en la cuenta 225 de IPA. Los usuarios son requeridos a acusar recibo de aceptación de un acuerdo de Billetera 215 antes a su primera transacción, incluyendo una exigencia de retornar cualquier utilidades recibidas por error.

Antes de realizar cualesquier compras de comunicación directa o de hacer cualesquier pagos utilizando los métodos de la presente invención, el

la presente invención la petición de pago del consumidor para créditos y débitos puede ser hecha directamente contra la cuenta DDA.

La cuenta IPA puede tener una tarjeta física asociada (por ejemplo, de ATM de débito, Tarjeta Inteligente) para compras y retiros físicos, en persona, tal como se describirá adicionalmente adelante con respecto a la Figura 4. La cuenta IPA 230 puede permitir acceso físico a través de la ATM o de lectores de tarjeta de comerciante para una transacción de débito PIN solamente.

Una de las características más significativas de la presente invención consiste en el uso de redes 270 existentes EFT. Aunque estas redes 270 han aportado transferencia segura de fondos durante años, el uso de estas redes de acuerdo con la presente invención es hasta ahora sin precedentes. En el uso de la red EFT, la presente invención proporciona crédito de tiempo real. Esto está en contraposición con los métodos de la técnica anterior en los cuales el crédito provisto es una inversión de una transacción de débito anterior (por ejemplo, tarjetas de crédito). Las redes 270 EFT son utilizadas para respaldar la cuenta IPA 230, efectuar transacciones de IPA, y satisfacer funcionalidad de comunicación de IPA. Así como apoyar la transmisión de transacciones de crédito de tiempo real, la red 270 EFT transmite mensajes que contienen códigos especiales de transacción o estructuras de números de cuentas especiales utilizadas para identificar de manera original transacciones de IPA.

Tal como se describió anteriormente, similar a una cuenta 230 IPA, la Caja con Cerradura Virtual Personal (VPL) 235 es una cuenta DDA de función limitada. Aunque puede tenerse acceso a una IPA 230 electrónicamente, una VPL 230 está construida con funcionalidad de red EFT de "recibo solamente" para que un comerciante (u otro individuo) reciba pagos electrónicos a través de la red EFT 270. Por lo tanto, una VPL 235 es una dirección segura que puede ser provista al público como un medio de recibir fondos. Estos fondos son entonces pasados rápidamente de manera automática por el banco 275 del comerciante ya sea a la cuenta 280 DDA o IDA correspondiente del propietario, de preferencia una vez al día.

Como una cuenta 230 IPA, la VPL 235 puede tener una tarjeta física acompañante (por ejemplo, ATM, de débito, Tarjeta Inteligente) para compras y retiros físicos, en persona. La VPL 235 puede permitir acceso físico a través de la ATM o a través de dispositivos de lectura de tarjetas de comerciantes para una transacción de débito de PIN solamente. Aunque es similar, debe repetirse que la VPL 235 es una cuenta separada de la cuenta IPA (o de transmisión) 230. La VPL 235 es una caja con cerradura segura dentro de la cual pueden transferirse fondos pero no pueden sacarse (excepto durante el proceso de despejar aquí descrito). Los usuarios pueden seleccionar si su VPL 235 será despejada a una cuenta 280 DDA o IPA. Las direcciones de VPL para varios comerciantes y otros receptores de pagos electrónicos se hacen disponibles en un directorio público del sitio de la red.

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Como se describió anteriormente, el Reporter VPL 240 es un portal para observar la cuenta VPL 235. El Reporter VPL 240 proporciona informes en línea de transacciones de tiempo real, y concilia registros de cuentas admisibles/compras de compras contra registros de pagos de EFT que ingresan. Aunque principalmente destinado para uso por comerciantes, el Reporter VPL 240 tiene dos niveles de funcionalidad diferentes, un grupo de requisitos de base para consumidores y características agregadas para comerciantes y negocios.

Con respecto al uso de base (consumidor), la VPL 235 pone al día el Reporter de VPL 240 a medida que son recibidos registros de pago y números de transacción a través del sistema de mensajería de EFT 270. Al mismo tiempo, cualesquier órdenes de compra y confirmaciones de pago son pasadas al Reporter de VPL 240 desde sitios de red de comerciante y de facturación. El Reporter de VPL 240 recibe también confirmaciones de compra desde la Billetera 215. Las confirmaciones de compra y los registros de pago son recuperables, en tiempo real, desde el Reporter 240 de VPL. Los propietarios de Reportes VPL 240 podrán observar sus registros con respecto a la cuenta VPL 235 de base en la red. Aunque solamente se ha ilustrado en la Figura 2 una cuenta 235 VPL es entendido que un comerciante es capaz de mantener simultáneamente varias cuentas VPL 235. Se puede tener acceso a cada una de estas cuentas VPL 235 mediante el único Reporter 240 de VPL.

Además de la funcionalidad descrita anteriormente con respecto a la configuración de base del Reporter VPL 240, una modalidad de comerciante del Reporter VPL 240 incluye funcionalidad adicional. Una primera de las funciones adicionales provistas por el Reporter 240 VPL de comerciante consiste en su capacidad de conciliar que equipara peticiones de compra 250 generadas por la red 255 del comerciante con confirmaciones de compra del comprador y le registro de pago de EFT 245. Cualesquier artículos que no encajen serán señalados como excepciones para revista. El Reporter VPL 240 de comerciante proporciona además identificación (ID) y contraseña de seguridad ofreciendo niveles variables de autoridad de acceso a los usuarios.

Adicionalmente, el Reporter 240 de VPL de comerciante automáticamente pone al día las cuentas admisibles del comerciante, los archivos de inventario & cumplimiento. Como una extensión adicional, el Reporter 240 de VPL también tiene capacidades de servicio de cumplimiento debido a lo cual información de una red 255 del comerciante es consolidada y comunicada a un almacén para iniciar embarque 260 del producto, así como también conectada al United Parcel Service (UPS™), Federal Express (FedEx™), u otros servicios de despacho para ejecución de embarque. El Reporter VPL 240 contiene herramientas de servicio esenciales de cliente, tales como la capacidad de recuperación/revista electrónica, órdenes de compra/ pagos de tiempo real, y a su vez la capacidad de enviar por correo electrónico o autofax copias de tales documentos directamente a los

clientes. El Reporter VPL 240 proporciona adicionalmente herramientas de explotación de datos que recogen estadísticas sobre comportamiento de compradores al detal/ compradores al por mayor, verifica tendencias de temporada y regionales de compradores al detal / compradores al por mayor, y verifica otras claves demográficas. Con base en estas estadísticas, los comerciantes pueden expedir cupones electrónicos enfocados, acomodados según especificaciones a través de su Reporter VPL 240. Es importante observar que el Reporter VPL puede ser configurado de tal manera que identidades de individuo / comprador no serán disponibles para el Reporter VPL 240 sin consentimiento previo del dueño de la Billetera. Para consumidores, el Reporter VPL 240 aparece como una parte inconsutil de la Billetera 215, en tanto que para comerciantes y negocios, el Reporter VPL 240 aparece como una conveniencia separada.

Sitios 255 de la Red de Comerciante, son suficientemente conocidos para aquellos expertos en la materia. Sitios de Red de Comerciante 255 incluyen típicamente clave (tal como HTML, XML, o ECML) para llevar estados de cuenta de transacciones a la Billetera 215 así como también una articulación directa en el sitio de compra 255 que va directamente a la Billetera del comprador 215.

Habiendo descrito los elementos estructurales de la presente invención, la discusión siguiente representa una modalidad de la presente invención relacionada con compras en Internet. Como en todas las Figuras

restantes 2 – 9, las etapas del método son ilustradas en las Figuras en pequeños círculos próximos al elemento estructural más estrechamente relacionado con la acción que es llevada a cabo. En esta modalidad, el consumidor (usuario) inicia el proceso en la etapa 2 A registrando en el Internet, lanzando el navegador 210 y seleccionando el icono de la Billetera 215 desde la barra de herramientas del navegador 210.

En la etapa 2B, el usuario completa un procedimiento de certificación 205, con el fin de identificar a él o a ella correctamente la Billetera 215. Típicamente el proceso de certificación implica la manipulación del usuario en el ID y en el santo y seña del usuario. El usuario es autenticado de esta manera y tiene acceso a su Billetera 215. En la etapa 2C, se presenta entonces al usuario la información de balance con respecto a la Billetera 215 y puede seleccionar entre varias opciones. En una modalidad preferida las opciones presentadas al usuario incluyen: Comprar en la Red; Telegrafiar a Alguien (véase la Figura 5); Pagar a Cualquiera (véase la Figura 3); Respaldar con Fondos la Billetera (véase la Figura 9); Pagar Facturas (véanse las Figuras 6-8); y Verificar Recibos Provenientes de la Actividad de la Billetera.

Suponiendo que el usuario ha seleccionado la opción de Compra en la Red en la etapa 2D, el navegador 210 podría ser dirigido inicialmente a la lista especial de sitio de red de los comerciantes aprobados. Alternativamente, el usuario es libre de navegar en Internet hasta el sitio de

red del comerciante de su elección. En la etapa 2E, el usuario ha encontrado un sitio de red 255 de un comerciante particular y más específicamente ha encontrado y seleccionado y detallado para compra desde el sitio de red 255 del comerciante. Puesto que la Billetera 215 es activa, el sitio de comerciante 255 reconoce el usuario como un cliente de Billetera 215. En respuesta a este reconocimiento, todos los campos de compra (dirección de despacho, nombre, etc) requeridos por el sitio 215 del comerciante son poblados automáticamente desde la Billetera 215 según se describió anteriormente. Alternativamente, el usuario puede enrolarse con su Billetera después de que el usuario ha encontrado un artículo en un sitio de red para compra. El usuario puede ya sea invocar la Billetera 215 haciendo clic sobre un icono embebido directamente en la página de red 255 del comerciante, o haciendo clic en el botón de la Billetera sobre la barra de herramientas 210 del navegador.

En la etapa 2F, el sitio del comerciante 255 genera y transmite al usuario un mensaje de pago de factura que contiene información con respecto a la compra en perspectiva. La información provista por el sitio de red 255, en el mensaje de pago de factura incluye pero no está limitada a los datos siguientes: BIN del comerciante; número de cuenta del comerciante; ID de la transacción; y la Suma de Dinero de la transacción. En la etapa 2G el mensaje de pago de factura es recibido por la ventana de la Billetera 215. La ventana exhibe el mensaje de pago de factura para revisión por el usuario. Si el usuario modifica la opinión de él o de ella, el usuario puede

seleccionar un botón en la ventana que autoriza Declinar la compra. Si el usuario no quiere completar la compra se selecciona un botón Artículo de Compra. Aunque antes se describió con respecto a un solo artículo es claro que el proceso anterior se aplica igualmente al método de compra de carreta utilizado por la mayoría de sitios 255 de comerciante. En el método de compra de carreta, después de que el cliente ha seleccionado un número de artículos para compra, el sitio 255 de comerciante totaliza los artículos y transmite un mensaje de pago consolidado a la Billetera 215 en la etapa 2F.

Si el usuario ha elegido comprar el artículo en conformidad con el mensaje de pago de factura proveniente del sitio 255 de comerciante, la Billetera 215 en la Etapa 2H verifica el saldo del usuario en la Billetera 215 y pasa un registro de transacción a la cuenta 230 de IPA o DDA del usuario según se describe adelante. Además de procesar el registro de transacción para el usuario, la Billetera 215 transmite una confirmación de pago al sitio de red 255 de comerciante. Típicamente, en respuesta a esta confirmación de pago proveniente de la Billetera 215 del usuario, el sitio de red 255 de comerciante origina un registro de compra 250 en una base de datos (que no se ilustra) para uso futuro en conciliación con el registro real de pago 245 recibido cuando los sistemas financieros (bancos 220, 275 y conmutador 270 de EFT) indican que los fondos serán o habrán sido transferidos a la cuenta 235 de la VPL del comerciante. Los bancos 220, 275 que mantienen cuentas 235 de IPA 230 y de VPL mantienen también la base de datos descrita anteriormente utilizada como un archivo centralizado de mantenimiento de

del usuario (siendo debitados los fondos desde la cuenta 230 del usuario) al banco 275 del comerciante (siendo acreditados los fondos a la cuenta 235 del comerciante).

Después de que el registro 245 de pago de factura ha sido recibido por la cuenta 235 de la VPL del comerciante, el registro 245 es vinculado al Reporter 245 de la VPL del comerciante. Al recibo del registro de pago 245, el Reporter 240 de la VPL almacena de preferencia el registro 245 en la misma base de datos en la cual fue almacenado el registro de compra 250 en la etapa 2H descrita anteriormente. Una vez que el registro de pago 245 ha sido almacenado, puede ser conciliado por el Reporter 240 de VPL contra el registro 250 de compra del comerciante. En esta manera, el circuito contable en el sistema del comerciante, puede ser cerrado, con la equiparación de la factura del comerciante (el registro de compra 250) con el pago (el registro de pago 245). Con el Reporter 240 de la VPL, un comerciante tiene un producto que permite cumplimiento de transacción seguro, capacidad de conciliación, mantenimiento de antecedentes y posibilidades de archivo. Una vez que el circuito financiero ha sido cerrado con el recibo del registro de pago 245 por el comerciante, el comerciante puede despachar con confianza los artículos 260 al consumidor en la etapa 2L. El despacho de los artículos puede conllevar despacho físico de un artículo físico, o transmisión electrónica de un artículo digital tal como un archivo musical.

En cumplimiento de la garantía establecida por el registro de pago 245, fondos son colocados una vez al día en la etapa 2M entre el banco 220 del usuario y el banco 275 del comerciante a través del conmutador 270 de EFT. Típicamente, cientos o miles de tales pagos tienen lugar de un lado a otro entre el banco 220 y el banco 275 durante el día y para finalidades de eficiencia los fondos netos reales debidos de un banco al otro son transferidos solamente una vez por día. Por ejemplo, un banco 220 habría garantizado $10.000 en pagos desde cien de sus clientes al otro banco 275. El mismo día el otro banco 275 podría haber garantizado $12.000 en pagos desde 50 de sus clientes al otro banco 220. Al final del día, el banco 275 envía solamente la diferencia, $2.000 al banco 220 y cada uno de los bancos 220, 275 aseguran que las cuentas apropiadas en su propio banco son debitadas y acreditadas para los pagos. Tal como se puede apreciar con facilidad, cada banco puede realizar esto una vez un convenio diario con cientos de otros bancos, tal como es hecho actualmente con el sistema actual ATM 270 de transferencia de fondos. Nuevamente en una base diaria, los fondos recibidos en la cuenta 235 de VPL del comerciante son despachados mediante un proceso automático hacia la cuenta 280 de concentración de efectivo del comerciante, la cual puede ser una cuenta DDA o IPA.

Tal como se aprecia con facilidad según la descripción anterior, la Billetera 215 y la Caja con Cerradura Privada Virtual (VPL) 235 mejora de manera significativa la experiencia del consumidor y el comerciante al

utilizarse para compras de red. La presente invención resuelve completamente uno de los problemas más severos de la técnica anterior, la vacilación de un consumidor para proveer su información de cuenta financiera por el Internet. Más bien que la "tracción" del comerciante en la información contable de los consumidores y requiriendo autenticación del consumidor, la Billetera "empuja" fondos garantizados a la Caja con Cerradura Priva Virtual, sin que el comerciante obtenga la información de cuenta de los consumidores. Esta asociación es virtualmente instantánea, proporciona privacía, seguridad, y conveniencia al consumidor y garantiza la provisión de fondos, proporciona conciliación, y suministra registros de archivo al comerciante.

Con respecto a autenticación, puesto que el consumidor está impulsando el pago a comerciantes u otras entidades o individuos, más bien que el arrastre de pagos de comerciantes desde cuentas de consumidores, los consumidores no necesitan autenticarse ante el comerciante. Más bien, los consumidores se autentican ante su propio banco 220, el cual ejecuta entonces el pago a la cuenta de la VPL 235 del comerciante.

Este método de la presente invención es muy atractivo para los consumidores porque ellos pueden pagar a cualesquier comerciante independientemente de la existencia de una relación preexistente con tal individuo o entidad. La transacción puede ser conducida además desde cualquier parte en donde exista acceso al Internet. La cuenta IPA 230 puede

ser utilizada y administrada a través del PC de consumidor, una ATM capacitada por la red, por el teléfono 203 o mediante cualquier otro dispositivo 204 capacitado por la red. El presente método de pago de compras por Internet es sumamente fácil de adoptar por los clientes de banca de comunicación directa. El método permite a los consumidores conducir compras de comunicación directa sin tener que proveer cualesquier información financiera confidencial personal a comerciantes desconocidos. El método permite a los consumidores conducir estas transacciones financieras solamente con la propia institución financiera de él o de ella.

Con respecto a comerciantes que son pagados mediante el método de la presente invención, existen varias ventajas. Este método abre un universo de compradores/pagadores quienes no tienen acceso a o el deseo de utilizar tarjetas de crédito o de débito de entrada directa. Se requiere muy poco esfuerzo por parte de un comerciante quien solamente tiene que publicar su información de su única cuenta 235 de depósito de banco 275 y depósito de la VPL en su sitio de red 255. Si un comerciante ha estado utilizando métodos de tarjeta de crédito tradicionales, la presente invención proporciona al comerciante ahorros significativos en procesamiento de tarjetas de crédito, costos de rechazo, pérdida por fraude, y costos de contraobligación. La presente invención proporciona también al comerciante de la capacidad de aceptar económicamente micropagos.

La Figura 3 ilustra una segunda modalidad de la presente invención en la cual las estructuras descritas anteriormente pueden ser utilizadas por un usuario para pagar a cualquiera. La Billetera 215 de la presente invención proporciona al usuario una tremenda flexibilidad. Cualquiera con una Billetera 215 puede enviar de manera conveniente fondos a cualquier otro con una Billetera 315. Esta transferencia de fondos es instantánea y a ningún costo para el consumidor, y es conducida en un ambiente seguro.

Tal como se describió anteriormente con respecto al modelo de hacer compras por Internet ilustrado en la Figura 2, en el modelo de pago a cualquiera de la Figura 3, en las etapas 3 A- 3C, el usuario se registra en el Internet, lanza su navegador (no mostrado en la Figura 3) y lanza la Billetera 215. La Billetera 215 requiere nuevamente que el usuario identifique con clave en su ID y santo y seña de usuario, mediante el cual el usuario es entonces autenticado y tiene acceso a su Billetera 215. El usuario es entonces obsequiado con su información de balance de Billetera 215 y puede seleccionar entre varias opciones que incluyen Compra en la Red, Pagar a Cualquiera, Pagar Facturas, Telegrafiar a Cualquiera, Billetera de Fondos, Verificación de Recibos de Actividad de Billetera, Información de repasar Billetera o Servicio de ir al cliente. En la presente modalidad ilustrada en la Figura 3, el usuario selecciona la opción de Pagar a Cualquiera desde el menú y el usuario es retribuido con varias opciones en la pantalla de menú de Pagar a Cualquiera en la etapa 3D. Estas opciones incluyen: identificar con clave manualmente en el número de la VPL del

beneficiario; seleccionar un beneficiario anterior desde un menú de descenso anterior de beneficiario; Agregar / Retirar / Editar un beneficiario desde un menú de descenso; y la opción de ir a un directorio de comunicación directa de números de VPL de varios beneficiarios. En la modalidad particular ilustrada en la Figura 3, el usuario identifica (o selecciona) el número de la VPL de beneficiario, el monto de dinero del pago y una descripción de la razón para el pago, siendo opcional la descripción.

En la etapa 3E, la información de pago antes descrita es transmitida a la Billetera 315 del beneficiario. La Billetera 315 del beneficiario verifica el número de VPL especificado por el usuario y provee una autorización para hacer el pago. En la etapa 3F, la Billetera 315 del beneficiario confirma que la información es correcta y transmite el usuario (pagador) un mensaje de pago con la información siguiente: BIN del Beneficiario; Número de Cuenta del Beneficiario; ID de transacción; el monto de dinero del pago; y una descripción opcional. En la etapa 3G, al recibo del mensaje de pago, el usuario revisa el mensaje y selecciona "OK para Pagar".

En la etapa 3H, la Billetera 215 de usuario envía la transacción de pago a la cuenta 230 IPA o DDA del usuario. En paralelo, la Billetera 215 del usuario transmite una confirmación del pago esperado a la Billetera 315 del beneficiario que origina un registro 350 de pago esperado. La transacción de pago desde la Billetera 215 de usuario a la cuenta 230 de IPA de usuario pasa a través de la certificación 225 como se describió anteriormente con el

fin de que el banco 220 del usuario identifique adecuadamente la autorización del usuario para hacer el pago desde la cuenta 230 de IPA. En la etapa 3I, el mensaje de pago es pasado desde la cuenta 230 de IPA o DDA de usuario hasta la VPL 335 de beneficiario a través del conmutador 270 de ATM. La VPL 335 de beneficiario, en la etapa 3J, transmite a su vez el registro de pago 345 a la Billetera 315 del beneficiario o alternativamente al Reporter 340 de VPL del beneficiario (si el beneficiario tiene dicho Reporter 340). Al recibo del registro 345 de pago, en la etapa 3K, la Billetera 315 o el Reporter 340 de la VPL del beneficiario es capaz de conciliar el registro 350 de pago esperado contra el registro 345 de pago real. Al recibo del registro de pago real, el banco 375 del beneficiario acredita la cuenta 335 de VPL del beneficiario y el beneficiario obtiene ahora uso inmediato de los fondos. Estos fondos pueden a su vez ser utilizados para hacer compras de red, pago de facturas, pagar a cualquiera (etapas 3M). O retiro a una ATM utilizando la característica de tarjeta descrita adelante.

Para concluir el proceso de pagar a cualquier, como con la modalidad ilustra en la Figura 2, los fondos son puestos en orden una vez al día entre el banco del usuario 220 y el banco 375 del beneficiario (a través de la red 270 de EFT) y los fondos son desplazados hacia la cuenta 380 de DDA o IPA del beneficiario.

El proceso de pagar a alguien descrito anteriormente es un método de pago muy atractivo para los consumidores. Por ejemplo, el consumidor podría estar respondiendo a un aviso clasificado (electrónico o de periódico tradicional) o podría estar comprando un artículo o un servicio a través de un

sitio de subasta electrónica tal como eBay™. En cualquiera de estos casos, el consumidor puede obtener la información de la cuenta 335 de la VPL del beneficiario (por ejemplo, BIN, número de cuenta,...) en una variedad de formas. En un método, el consumidor obtiene esta información electrónicamente desde el servicio en donde entró en contacto con el individuo (por ejemplo, a través de eBay™). Alternativamente, el consumidor puede obtener la información necesaria del banco de destino a través de métodos no acoplados al sistema tales como el aviso clasificado tradicional de periódico o a través de un correo electrónico que ha sido "presionado" al consumidor por el beneficiario potencial. El beneficiario potencial es protegido utilizando estos métodos puesto que la cuenta 335 de VPL es una cuenta de recibo solamente y nadie puede tener acceso a la cuenta para retirar dinero fraudulentamente de la cuenta.

La Figura 4 ilustra una modalidad de la presente invención que implica tarjetas de efectivo prepagado. En esta modalidad, las tarjetas de efectivo prepagadas están vinculadas a cuentas IPA o VPL que contiene una cantidad de efectivo prefijada. La tarjeta es expedida al propietario de la cuenta IPA o VPL a fin de que el usuario tenga acceso a la cuenta IPA o VPL en el mundo físico. Además, las tarjetas pueden ser compradas en máquinas vendedoras colocadas en localizaciones convenientes de comercio electrónico. La tarjeta puede ser expedida desde el sitio de red del banco garante o desde una máquina vendedora/ATM capacitada para vender. Cuando el usuario establece una Billetera 215 en el Internet, una

opción es disponible para recibir la tarjeta de plástico prepagada. Al seleccionar esta opción, la tarjeta es despachada por correo al propietario de la IPA.

En la modalidad de la máquina vendedora, la tarjeta es comprada de la máquina vendedora previamente provista de fondos con incrementos fijados de dinero en efectivo. Estos incrementos están asociados a intervalos específicos de números de cuenta, y están vinculados a cuentas de VPL preactivadas. Alternativamente, la tarjeta puede ser activada automáticamente a su desembolso desde la máquina, o por el consumidor que hace una llamada a una línea de servicio de clientes. La compra de una tarjeta en una máquina vendedora establece una cuenta de VPL para el comprador.

Una vez compradas, las tarjetas pueden ser aceptadas en instalaciones de ATM y por comerciantes que están provistos de lectores de tarjetas. Puesto que las tarjetas son PIN protegidas, ellas son más seguras que el dinero en efectivo. La tarjeta tiene los números de cuenta IPA o VPL así como también un PIN. El PIN está impreso en una etiqueta fijada al respaldo de la tarjeta cuando la tarjeta es expedida. El número de cuenta y el PIN son también almacenados en la faja magnética en el respaldo de la tarjeta. La cuenta VPL asociada con la tarjeta puede recibir fondos provenientes de cualquier propietario de cuenta VPL. La tarjeta puede ser

utilizada para retirar fondos en una ATM y hacer compras a cualesquier comerciantes que acepten tarjetas de débito.

Para la tarjeta comprada por alguien quien no tuvo previamente una cuenta VPL, con el fin de utilizar subsiguientemente la tarjeta en el Internet, el propietario de tarjeta será requerido a establecer un ID de Internet y un santo y seña en la red del banco garante (el cual es impreso en el respaldo de la tarjeta). En el sitio de red del banco, el propietario de la nueva tarjeta identifica con clave en el número de la tarjeta y el PIN para sincronizar la VPL con una cuenta de IPA recién creada para el usuario. Esta origina también un ID de Internet y un santo y seña para el usuario. Esta sincronización desplazará el enlace de tarjeta desde la cuenta de VPL hasta la cuenta IPA. También se pedirá al usuario indicar si cualesquier fondos recibidos por la VPL serán despejados hacia la IPA recién creada o a una cuenta DDA existente.

Una modalidad específica de compra y uso de una tarjeta prepagada se ilustra en la Figura 4. En la etapa 4 A, el comprador selecciona una tarjeta ya sea desde una máquina vendedora 400 o desde una ATM (no ilustrada) capacitada para vender. En una modalidad preferida, pueden comprarse tarjetas por tan poco como $1, o en incrementos mayores como ATM. Después de hacer una selección, el comprador es movido a pagar por la tarjeta. Se encuentran disponibles varias opciones de compra, que incluyen tarjetas de débito y tarjetas de crédito de dinero efectivo.

En la etapa 4B la tarjeta es desembolsada de la máquina 400, y es envuelta por encogimiento con un PIN previamente asignado así como con instrucciones para utilizar la tarjeta. La tarjeta es bien sea preactivada o alternativamente, la máquina expendedora 400 envía un mensaje de activación al garante de la tarjeta por su compra.

Con la tarjeta en la mano, el usuario puede retirar fondos desde la cuenta asociada con la tarjeta o hacer compras de almacén utilizando la tarjeta. En la etapa 4C, el dueño de la tarjeta la inserta dentro de una máquina ATM 430 o un lector de tarjeta de comerciante o en una localización de Punto De Venta de comerciante. El usuario entonces identifica con clave en el número PIN para identificarse ella o él como el dueño apropiado de la tarjeta. En la etapa 4D, el lector de tarjeta de comerciante, que está conectado a la red 270 de EFT, transmite la petición a través del interruptor 270 de EFT al banco garante 410.

Tan similarmente como se expone en la Figura 2, el mensaje de pago es observado como siendo recibido directamente por la cuenta 420 de VPL de usuario, pero en la práctica, se comprende que toda la mensajería de EFT tiene lugar a través de los sistemas del banco 410. El mensaje es transmitido al banco 410 como una transacción de débito PIN de comunicación directa contra la cuenta 420 de la VPL del usuario. Después de verificación de que existen fondos suficientes disponibles en la cuenta

420 de la VPL asociada con la tarjeta solicitante, la transacción es autorizada por el garante 410 de la VPL y los fondos son deducidos del balance en la cuenta 420 de la VPL. En la etapa 4E, el mensaje de autorización es transmitido de nuevo a la ATM o POS 430 a través de la misma red 270 de EFT y los fondos son liberados al dueño de la tarjeta (en el caso de un retiro de ATM) o acreditados al comerciante (compras de almacén) en la etapa 4F.

La Figura 5 ilustra una modalidad de la presente invención en la cual el usuario puede telegrafiar fondos de manera instantánea a cualquiera. El beneficiario (recipiente de los fondos) puede retirar fondos mediante una ATM a través del uso de una tarjeta VPL, que el beneficiario puede ya sea comprar en una máquina vendedora o recibir por correo al establecer una cuenta, según se describió anteriormente. Como con todas las modalidades de la presente invención, esta característica de telegrafiar a cualquiera garantiza que la transacción sea conducida en un ambiente seguro.

Como se describió anteriormente con respecto a las modalidades de las Figuras 2 y 3, en el método de telegrafiar a cualquiera de la Figura 5, en las etapas 5 A- 5C, el usuario se registra en el Internet, lanza su navegador (que no se ilustra en la Figura 5) y lanza la billetera 215. La Billetera 215 requiere nuevamente que el usuario identifique con clave en su identificación de usuario y santo y seña, mediante el cual el usuario es autenticado entonces y tiene acceso a su Billetera 215. El Usuario es entonces provisto

con su información de balance de Billetera 215 y puede seleccionar entre varias opciones que incluyen Compra en la Red, Pagar a Cualquiera, Pagar Facturas, Telegrafiar a Cualquiera, Billetera de Fondos, y Recibos de Cheques desde la Actividad de Billetera. En la presente modalidad ilustrada en la Figura 5, el usuario en la etapa 5D selecciona la opción de Telegrafiar a Cualquiera desde el menú y es interrogado en cuanto a si el beneficiario potencial ya tiene Billetera o una Tarjeta. Si el beneficiario ya tiene una Billetera es seguido el procedimiento expuesto anteriormente con respecto al método de pagar a cualquiera de la Figura 3. Si el usuario indicó que el beneficiario tiene una de las tarjetas descritas en la Figura 4, el usuario es instruido ya sea a identificar con clave en la cuenta del tenedor de la tarjeta la información o a seleccionar la tarjeta desde un directorio de comunicación directa. Después de que el usuario ha identificado con clave en la información requerida, la información es validada (es decir, la cuenta de VPL asociada con la tarjeta es válida). El usuario entonces identifica con clave la cantidad de dinero que ha de ser telegrafiada.

En la etapa 5E, una confirmación telegráfica es generada con los datos siguientes: BIN de beneficiario; número de VPL (número de tarjeta) del beneficiario; ID de transacción; y monto de dinero. Después de recibir la información, el usuario selecciona entonces "OK para Telegrafiar" en la pantalla del puesto de trabajo 200 (por ejemplo, PC, PDA ...). En la etapa 5F, la Billetera 215 del usuario verifica el balance en la cuenta 230 de IPA y pasa

la transacción a la cuenta 230 de IPA si existen fondos suficientes en la cuenta 230 para cubrir la transacción. En la etapa 5G, el mensaje de pago es pasado a través del conmutador 270 de ATM desde el banco 220 del usuario (cuenta 230 de IPA) al banco 575 del beneficiario (cuenta 535 de VPL).

El beneficiario puede retirar los fondos por una ATM 500 a través del uso de una tarjeta de VPL como se describió anteriormente. Cuando el retiro es solicitado, un mensaje de pago es transmitido en la etapa 5H desde la cuenta 535 de la VPL de beneficiario al banco de proveedor ATM 500. El beneficiario tiene ahora uso inmediato de fondos, y el retiro es hecho en la etapa 5E. Tal como con las modalidades anteriores, los fondos son puestos en orden una vez al día entre el banco 220 del pagador, el banco 575 del dueño de la VPL, y el banco proveedor de ATM 500.

La presente modalidad es bien adecuada para muchas situaciones diferentes. Por ejemplo, si un padre tiene un hijo o una hija lejos en el colegio, el padre ha provisto al hijo o hija de una tarjeta y de cuenta 535 de VPL asociada, y está en capacidad de transferir fondos a la cuenta 535 del hijo o hija en una manera sencilla, rápida y eficiente en costo mediante el uso de la presente invención. Quienes tienen experiencia en la materia apreciarán que la modalidad anterior puede ser utilizada por un cliente del banco para transferir fondos a cualquiera, tal como el jardinero del cliente o a un hijo en el colegio tal como se describió anteriormente.

Las Figuras 6, 7 y 8, ilustran tres modalidades diferentes de pago de facturas de acuerdo con la presente invención. La Figura 6 ilustra una modalidad directa de pagar la factura, la Figura 7 describe el pago de factura que incluye un proveedor de servicios que realiza consolidación, y la Figura 8 explica un método de pagar facturas en el cual el cliente realiza la consolidación. En la Figura 6, el método directo, un facturador establece una capacidad de facturación electrónica en su propio sitio de red 255. Una vez inscrito en el servicio, el cliente recibe una notificación de correo electrónico de que una factura se encuentra disponible para pago en el sitio 255 de red de facturador. El cliente lanza la Billetera 215 desde el navegador 210 y luego adquiere acceso al sitio 255 de red de facturador. Un pago es transmitido desde la Billetera 215 hasta la Caja de Cerradura Privada Virtual 235 del facturador. Como en todas las modalidades de la presente invención, la transacción es segura, protege la intimidad del cliente, y proporciona al facturador de reservas garantizadas, conciliación, y registros de archivo.

Como se ilustra en la Figura 6, el facturador / comerciante debe establecer primero una relación de facturación electrónica con su cliente. Una manera en la cual el comerciante podría hacerlo consiste en advertir a su servicio de facturación electrónica a través de correo electrónico, correo o red. En la etapa 6 A, se supone que el usuario se ha inscrito en el servicio de facturación electrónica en el sitio de red 255 de facturador y está recibiendo

mensualmente notificación por correo electrónico de cuando se encuentran disponibles facturas. Según se describió previamente, en la etapa 6B el usuario se registra en el Internet, lanza su navegador 210, lanza la Billetera 215 y es informado de las diferentes opciones de menú. En la etapa 6C, el usuario selecciona la opción "Facturas de Pago" y es informado de varias opciones en la pantalla de menú de Pagar Facturas que incluye "Pagar Facturas" e "Información Para Facturar Edición". Seleccionando la opción "Pagar Facturas", el usuario navega al sitio 255 de red de facturador. Debe recordarse que la Billetera 215 ya contiene información de facturación de usuario.

Puesto que la Billetera 215 de red es activa, el sitio de red 255 de facturador reconoce el usuario como un cliente de la billetera 215. Además, el sitio de red de facturador en la etapa 6D, verifica que el cliente tenga una relación de facturación electrónica establecida. En la etapa 6E, el sitio 255 de facturador genera y transmite al usuario un mensaje de pago de factura que incluye los datos siguientes: BIN de facturador; número de Cuenta de Facturador; ID de Transacción; y el monto de dinero de la factura que ha de ser pagada. En la etapa 6F, el mensaje de pago de factura es recibido por la ventana de la billetera 215 y es exhibido para revisión por el usuario. El usuario tiene varias opciones que incluyen por lo menos la selección para editar la factura (por ejemplo, la cantidad que ha de ser pagada) o la opción de pagar la factura según es presentada.

Si el usuario selecciona la opción "Pagar Factura", la Billetera 215 verifica el saldo del usuario en su cuenta 230 de IPA y pasa la transacción de pago a la cuenta 230 de IPA / DDA al tiempo que transmite simultáneamente una confirmación de pago al sitio de red 255 de facturador / comerciante (etapa 6G). El mensaje de pago de factura es pasado desde la cuenta 230 de IPA / DDA del usuario a la cuenta 235 de la VPL por medio del conmutador 270 de ATM (etapa 6H). El registro de pago de factura es transmitido entonces desde la cuenta 235 de la VPL del facturador al Reporter 240 de VPL del facturador.

En la etapa 6J, al recibo del registro de pago que garantiza los fondos para cancelar la factura, el registro 245 de pago del facturador es conciliado contra los archivos 600 de cuentas por cobrar del facturador. Según se describió previamente, con la cuenta 235 de la VPL y el Reporter 240 de la VPL, un comerciante facturador puede ejecutar cumplimiento seguro de transacción, conciliar todas sus cuentas, al tiempo que archiva de manera segura todos sus registros para recuperación sencilla, más tarde. Según se describió anteriormente con respecto a otras modalidades, los fondos son liquidados una vez al día entre el banco 220 del usuario y el banco 275 del facturador (etapas 6K). Los fondos pueden ser despachados a la cuenta DDA del facturador o la cuenta 280 de concentración de efectivo (etapa 6L).

La Figura 7 ilustra el método de pago de facturas, el pago de facturas a través de un consolidador proveedor de servicios. Este método de pago de

facturas es similar al ilustrado en primer lugar en la Figura 6, no obstante en este método un proveedor central de servicios consolida facturas electrónicas provenientes de muchos facturadores diferentes. El sitio de proveedor de servicios capacita al cliente para revisar y pagar facturas con respecto a varias si no todas sus facturas (por ejemplo, factura de electricidad, factura de teléfono, amortiguación..). El proveedor de servicios está inconsutilmente equipado con una capacidad de archivo, de tal manera que los clientes pueden revisar su historia de pago de facturas. La Billetera 215 una vez más proporciona nuevamente al cliente de intimidad, seguridad, y conveniencia, en tanto que la VPL proporciona al proveedor de servicios (y a sus clientes, el facturador / comerciantes), de fondos garantizados, conciliación y registros de archivo.

En la etapa 7 A, el usuario inscribe en el servicios de facturas electrónicas en el sitio de red 755 del Proveedor de Servicios de Cliente (CSP). La relación de facturación electrónica entre el CSP y el usuario es establecida ya sea directamente en respuesta a publicidad por el CSP o a través de los facturadores (clientes del CSP) que publican los servicios del CSP para los usuarios (quienes son clientes de los facturadores). En tanto que inscribe (o en un tiempo posterior) el usuario selecciona qué facturas desea recibir y pagar electrónicamente a través del servicio de CSP. El CSP puede ofrecer un servicio de archivo a los facturadores con el fin de almacenar la historia de la transacción así como también proveer una unidad de servicio de clientes para resolver indagaciones de transacciones.

Después de la inscripción, el usuario principia entonces a recibir notificaciones mensuales de correo cuando se encuentran disponibles facturas provenientes de los facturadores seleccionados por el usuario. LA factura electrónica puede ser enviada al usuario ya sea por el CSP o directamente desde el facturador al usuario. En este segundo método, el facturador debe proveer al CSP con un archivo de cuentas pagables que refleje las facturas electrónicas que ha enviado, con el fin de que el CSP realice el proceso de conciliación descrito adelante para el facturador. Si el CSP es la parte que transmite las facturas electrónicas a los usuarios, los facturadores deben proveer al CSP de la información de facturación. Son sustentados muchos tipos de métodos de preservación de archivos. LOS facturadores pueden impulsar la información de facturación directamente al sitio de red del CSP, o alternativamente, las facturas electrónicas pueden ser canalizadas al CSP a través del Espectro u otro totalizador electrónico de pago de facturas, por Internet.

Las etapas 7B y 7C, son esencialmente las mismas tal como se describió anteriormente con respecto a la modalidad de pago directo de facturas de la Figura 6. La única diferencia consiste en que después de seleccionar la opción "Pagar Facturas", en lugar de navegar directamente hacia el sitio de facturador, el usuario navega hacia el sitio de red 755 de CSP. En la etapa 7E, el usuario selecciona qué facturas ha de pagar e inscribe en clave el monto en efectivo que ha de ser pagado en la factura (o

selecciona la omisión, que consiste en pagar la cantidad completa de la factura que fue presentada al usuario). En la etapa 7F, el sitio 755 de CSP genera y transmite al usuario uno o más mensajes de pago de facturas. En una modalidad, el CSP genera un solo mensaje de pago que incluye la información apropiada de pago para todas las facturas pagadas durante la sesión. En una modalidad alternativa, un mensaje de pago separado es generado para cada una de las facturas pagadas por el usuario. En cualquier modalidad el mensaje incluiría: el BIN del CSP; el número de cuenta de la VPL del CSL; una transacción o transacciones ID; el nombre(s) del facturador(es) y el monto(s) en efectivo.

Las etapas 7F a 7L son esencialmente iguales según se describió anteriormente con respecto a las etapas 6F a 6L de la Figura 6 y los elementos que son los mismos no deben ser repetidos. Aunque solamente es ilustrada en la Figura 7 una sola cuenta 735 de VPL, se aprecia que el CSP (o el facturador directamente) puede mantener una cuenta 735 de VPL para cada facturador. Independientemente de si existe una sola cuenta 735 de VPL o varias, los facturadores por sí mismos, pueden observar el contenido de sus recibos en la cuenta 735 de VPL a través del Reporter 740 de CSP. En la etapa 7J, el CSP realiza el proceso de conciliación para cada uno de sus clientes (es decir, los facturadores). En la etapa 7L, cada uno de los recibos del facturador son despachados a su DDA respectiva o a sus cuentas 780 de concentración de efectivo. La Figura 8 ilustra la modalidad de pago de tercera factura que implica la consolidación del cliente. En este

tercer método de pago de factura, las facturas electrónicas 800 son suministradas directamente al cliente en la forma de un correo electrónico. Cada factura electrónica 800 contiene un enlace directo, el cual dirige el cliente al sitio de red 855 del facturador (o a un sitio de red CSP si el CSP maneja los pagos para el facturador). Cuando el cliente activa su billetera 215, el sitio de red 855 reconoce el cliente de la Billetera 215 e inicia un mensaje d epago tal como se describió anteriormente. El cliente puede entonces impulsar el pago hacia el facturador en la misma manera en que un pago es impulsado en la modalidad de hacer compras en la red de la Figura 2, la modalidad de pagar a alguien de la Figura 3, así como también las otras dos modalidades de pago de facturas de las Figuras 6 y 7. Como con todas las modalidades precedentes, el comerciante una vez más recibe los fondos garantizados, la conciliación, y los registros de archivo se benefician de la presente invención.

La Figura 9 ilustra un sistema y método para establecer y financiar una Billetera 215. Tal como se describió anteriormente a una cuenta 230 de IPA de usuario se tiene acceso a través de una Billetera virtual 215 a la cual se puede tener acceso a través del Internet 900, ATM 905, teléfono 910, Cabina 915, una TV interactiva, y aún por un Asistente Digital Personal (PDA) 920. El método primario para respaldar la Billetera 215 (o más específicamente la cuenta 230 de IPA vinculada a la Billetera 215) es mediante una de las cuentas de propietario de billetera u otras cuentas de DDA (por ejemplo, una cuenta de ahorros). En una modalidad preferida, la

Billetera 215 puede recibir fondos desde otras cuentas del usuario a través de diferentes formas de banca de comunicación directa. Opciones alternativas de proveer fondos pueden ser logradas a través de una tarjeta de crédito externamente garantizada, mediante cheque u orden de dinero, o a través de la red de ACH.

Las etapas 9 A a 9C ilustran un método mediante el cual un usuario puede instalar una Billetera 215. Como se indicó anteriormente, la modalidad preferida incluye un sistema de banca de comunicación directa. El ejemplo siguiente utiliza un operador ficticio del sistema denotado como BancoXYZ. En la etapa 9 A, el usuario registra en el Internet y utiliza su navegador 210 para navegar hasta el sitio 960 XYZBank.com. En la etapa 9B, el usuario selecciona la opción de "Billetera" desde el menú principal en el sitio XYZBank.com. En la pantalla de "Billetera" se ofrecen al usuario dos opciones: "Es usted un cliente de la Banca de Comunicación Directa?" y "Es usted un cliente de NO- BancoXYZ?". Si el usuario selecciona "Cliente de Banca de Comunicación Directa", se ofrece al usuario una lista de las cuentas mantenidas por el usuario en el BancoXYZ que son sostenidas por banca de comunicación directa. El usuario identifica entonces la cuenta 930 de DDA o la cuenta 230 de IPA a la cual será vinculada la Billetera. Si el usuario selecciona "Cliente de Banco sin Persecución", la Billetera 215 es vinculada a una cuenta 230 de IPA establecida para el cliente en el BancoXYZ.

Luego, en la etapa 9C el usuario establece una Billetera 215 de red para uso seleccionando "Instalar una Billetera de Red" desde el menú. El usuario es instruido en cuanto a que su Billetera de Red será instalada ahora como un Botón en la barra de herramientas 210 del navegador. Una vez que ha sido instalado el Software para la Billetera 215 en el sistema del usuario (por ejemplo el PC de usuario o el servidor de red), el usuario es invitado a proveer alguna información de respaldo que ayudará al usuario a hacer compras y pagos de red. Un ejemplo de alguna de la información de respaldo pedida incluye la dirección del nombre de embarque del usuario. En este punto, la instalación de la Billetera 215 está terminada y el usuario puede realizar cualquiera de los métodos descritos anteriormente con respecto a las Figuras 1-8.

Las etapas 9D a 9K ilustran dos métodos de respaldar la Billetera 215. Para clientes del BancoXYZ, el método principal para provisión de fondos inicial y futura de la Billetera 215 es llevado a cabo a través de un enlace entre la Billetera 215 y la Banca de Comunicación Directa según se describió anteriormente. Para provisión inicial de fondos de la Billetera 215, el usuario selecciona "Mover fondos hacia/desde la Billetera" desde un menú de banca de comunicación directa. El usuario entonces suministra la información siguiente: fuente de los fondos- cheques, tarjeta de crédito, ahorros, etc; la suma en efectivo de la transferencia; la fecha de la provisión de fondos; y si esta es una transferencia simple o una transferencia de repetición. A la terminación de lo anterior, la Billetera 215 está respaldada con fondos.

Provisión subsiguiente de fondos de la Billetera 215 puede ser hecha a través de la misma Billetera 215 o a través del sistema de Banca de Comunicación Directa. Además de la provisión de fondos a través de la banca de comunicación directa, se pueden suministrar instrucciones para proveer fondos mediante el teléfono 910, la ATM 905, la Cabina 915, o la DDA 920 o por TV interactiva.

Las etapas 9E a 9J, ilustran un método de proveer fondos a la Billetera 215 desde una tarjeta de crédito externa (por ejemplo, adelanto de dinero en efectivo desde una tarjeta de crédito) o tarjeta de débito, o una cuenta externa de DDA (externa con respecto al BancoXYZ). Para el cliente de No-BancoXYZ que desea respaldar con fondos la Billetera 215 externamente, el usuario en la etapa 9E selecciona "Respaldo con una cuenta de No-BancoXYZ". El usuario selecciona entonces el comerciante financiero de la cuenta (por ejemplo American Express™, Visa™, etc.) e identifica con clave el número de cuenta, la expiración (si es aplicable), y el monto en efectivo de la transferencia de fondos. La petición de fondos es transmitida a un consecutor 970 de comerciantes asociado con o que es parte del BancoXYZ. Esta información de cuenta es almacenada para futuras peticiones de fondos.

En la etapa 9F, el consecutor de comerciantes 970 (tales como Chase Menchant Services™) autoriza la transacción de respaldar con fondos y pasa la petición a través del conmutador 270 de EFT. En la etapa 9G, el comerciante financiero (por ejemplo, VISA™) recibe petición de respaldo de fondos a través del conmutador 270 de EFT, y verifica el número de tarjeta,

expiración, y límite de crédito. Si la operación de provisión de fondos es autorizada por el comerciante financiero (etapa 9H) los fondos son recibidos por la Billetera 215, más específicamente, la cuenta 230 de IPA o de DDA vinculada a la Billetera 215 (etapa 9I). La instalación de fondos (etapa 9J) entre el banco de tarjeta de crédito y el banco del usuario tiene lugar típicamente una vez al día. Un proceso similar se lleva a cabo cuando la provisión de fondos ocurre desde una cuenta DDA de usuario en otra institución financiera.

Aunque la presente invención ha sido descrita en relación con modalidades particulares de la misma, muchas otras variaciones y otros usos serán evidentes para quienes tienen experiencia en la materia. Se prefiere, por tanto, que la presente invención esté limitada no por la presente exposición específica, sino solamente por la esencia y alcance de la exposición.

RESUMEN DE LA INVENCIÓN

Cinco componentes estructurales principales de la invención incluyen una Billetera Digital, una Cuenta de Pago a Cualquiera por Internet (IPA), una Caja con Cerradura Privada Virtual (VPL) y un Reporter de VPL asociado, las redes de EFT existentes, y una tarjeta de dinero en efectivo para acceso a una VPL. La Billetera es una aplicación de Software que proporciona un portal seguro para tener acceso (enlace a) ya sea a la Cuenta de Demanda de Depósito (DDA) del usuario o una cuenta de IPA. Los consumidores utilizan la Billetera para respaldar con fondos su cuenta, comprar en la red, pagar facturas, pagar a cualquiera, almacenar recibos electrónicos e historia de transacciones, y verificar su reciente actividad de Billetera. La cuenta de IPA es una cuenta DDA de finalidad especial con funcionalidad limitada para respaldar con fondos y recibir pagos electrónicos. A los fondos solamente puede tenerse acceso electrónicamente (a través de un PC, lector de tarjeta, PDA, TV interactiva y tecnología de teléfono celular, por ejemplo). La VPL es una cuenta de función limitada de recibir solamente DDA para recibir pagos electrónicos a través de la EFT. El Reporter de VPL es un portal para observar la cuenta de VPL, para proveer informes en línea, de transacción de tiempo real, y para conciliar registros de cuentas admisibles/adquisiciones contra registros de pago de EFT que entran. Además, la historia de transacción de la VPL pude ser archivada y

recuperada mediante un motor de investigación de pagos en el Reporter de VPL. La VPL provee al comerciante de vigorosa explotación de datos, servicio de clientes, y herramientas de realización (manejo de cadena de almacén, despacho, suministro) en la yema de sus dedos.

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PA 247127

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

May 11, 2000

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OFGS File No. : P/2167-159
Inventor : Denis O'Leary, et al.
Title : METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK
Assignee : The Chase Manhattan Bank

Enclosed herewith please find the following documents in the above-identified application for United States Letters Patent:

84 Pages of Specification including Abstract and Claims
154 Numbered Claims Calculated as 154 Claims for Fee Purposes
10 Sheets of Drawing Containing Figures 1 to 4. (Formal/Informal)
X Declaration and Power of Attorney (unsigned)
X Priority is Claimed under 35 U.S.C. §119:
U.S. Provisional Appln. Nos. 60/132,305, filed May 3, 1999; 60/150,725, filed August 25, 1999; 60/161,300, filed October 26,1999; 60/163,828, filed November 5, 1999;and 60/173,044,filed December 23, 1999.
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CERTIFICATION

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Dated: February 3, 2000

Shirley Wu

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OFGS File Number: P/2167-159

First Applicant: Denis O'Leary, et al.

Title: METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK

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P/2167-159

METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK

RELATED APPLICATION

This application is based on and claims priority to U.S. Provisional Patent Applications Nos.: 60/132,305, filed May 3, 1999; 60/150,725, filed August 25, 1999; 60/161,300, filed October 26, 1999; 60/163,828, filed November 5, 1999; and 60/173,044, filed December 23, 1999, the entire disclosures of which are hereby incorporated by reference.

FIELD OF THE INVENTION

The present invention generally relates to systems and methods for conducting electronic commerce, and more particularly to systems and method in which a payor pushes electronic credits to a payee using an Electronic Funds Transfer system.

BACKGROUND OF THE INVENTION

Presently, there are several methods by which a consumer can electronically pay for purchases made on the Internet, such as credit cards, off-line debit cards, online debit cards, digital cash, and smart cards. Each of these methods has its own advantages and disadvantages. An off-line debit card uses the traditional credit card system for clearing the payment but no Personal Identification Number (PIN) is required. The use of an on-line debit

card requires that the consumer supply his or her PIN, and the amount of the purchase is debited from the consumer's account instantaneously. One disadvantage with both the on and off-line debit cards, from a consumer's point of view, is the inability to reverse or repudiate the transaction. In contrast, by use of a credit card, the consumer at a later date can reverse the transaction (e.g., if the purchased goods are never shipped to the consumer).

It is predicted that credit cards will be the dominant on-line point of sale (POS) payment choice for at least the next five years. While new Internet payment mechanisms have been rapidly emerging, consumers and merchants have been happily conducting a growing volume of commerce using basic credit card functionality. None of the emerging efforts to date have gotten more than a toehold in the market place and momentum continues to build in favor of credit cards.

At the present time, there are several large market segments for an online payment system. First, high volume, low dollar payments from consumers to providers of on-line digital intellectual products or services such as written materials, music, software or games. These can either be 'Intrapreneurs,' individuals or small merchants marketing their products directly to consumers, or larger intermediaries, either traditional retail merchants or auction sites that aggregate consumers and sellers to facilitate sales. A second large market segment involves electronic payments from consumers to other consumers. A third and growing market segment resides in business to business electronic payments.

The market opportunity will continue to explode as what is currently thought of as the Internet continues to expand. In general, the Internet is thought of as Personal Computer (PC) and telephone based.

However, that model is quickly changing to include broadband communication via terrestrial links such as Digital Subscriber Line (DSL), wireless and two-way cable. The end number of devices is also expanding to include cellular phones with video displays as well as interactive television, Personal Digital Assistants (PDAs) and kiosks with Internet access. Both of these changes will only serve to increase the number of end points and consumers who will have a need for high-volume, low dollar payment capabilities.

Overall, retail consumer sales as well as business to business sales on the Internet are projected to grow exponentially. The bulk of the payments for these sales are expected to be done with credit cards, which are widely available and owned, are supported by an established infrastructure and provide merchants and consumers with a high degree of surety of payment and receipt. While there are clear differences in the ways in which consumers use credit cards, traditionally, consumers have used them for larger dollar purchases. In recent years, debit cards have entered the market and have been used as cash and check replacements, replacing lower-dollar volume transactions for purchases of consumable products such as food and gasoline.

Debit and credit card transactions are currently processed using the Electronic Funds Transfer EFT network. The debit message comprising the transaction is carried over the EFT network from the point of origination (e.g., a Point of Sale (POS) location, an ATM machine, or an Internet merchant) to the financial institution that issued the card (or its representative). Currently, only debit messages are carried by the EFT network, including debit reversal messages. A debit reversal message reverses a previously processed debit transaction and is generally not considered a credit.

U.S. Patent 5,220,501 to Lawlor, et al., describes a home

banking and bill payment system that uses the EFT network. As described in the patent, the systems and methods of Lawlor performs a traditional debit pull from the user's bank account using the EFT network and subsequently makes payments using conventional means such as the ACH network or paper checks. Furthermore, the system of Lawlor uses a centralized computer to which the user attaches via a dedicated phone connection as opposed to connecting through the Internet.

Although credit and debit cards have emerged as the most popular form of payment over the Internet, there are drawbacks associated with each of these payment types. Notably, each have a relatively high cost that includes a processing fee plus a merchant discount of 1.4% and up. The relatively high fees support the credit card business model. While credit and debit cards may continue to be a viable payment option for merchants selling relatively high ticket items over the Internet, credit and debit cards are not economically viable for purchases of lower cost items. For lower-cost items, the relatively high transaction processing fees plus the discount result in the transaction processing fee consuming a relatively high proportion of the total revenue generated by the product sale. These characteristics of a low cost item lend themselves to a low cost payments solution that is guaranteed, yet does not require the payee to bear the burden and risk of authentication.

The Internet is spawning a direct model in which manufacturers of products or services are able to deal directly with consumers. This model has several implications for the payment process. First, by eliminating the middleman, the direct model is resulting in intense price competition, with manufacturers having much tighter margins. This competition creates the need to minimize all costs especially payment processing costs. Second, the

Internet enables the development of large numbers of independent producers to 'set up shop' on the Internet and immediately have access to large numbers of consumers. Third, a large and increasing number of intellectual products such as publications, music, video, software, games are more efficiently distributed digitally over the Internet rather than through traditional physical (paper or disc) media. While this trend has already started, as higher bandwidth and increasingly sophisticated devices enter the marketplace, it is expected to increase significantly. Many of these purchases will have the following characteristics: low cost to the consumer and the ability to purchase individual works (i.e.: a song, a video, an article, a game). These characteristics call for a payment form that has a low cost.

By combining these two trends - direct merchant to consumer distribution from independent 'intrapreneurs', and the ability to distribute products digitally - a new marketplace has emerged for low dollar, high volume, real-time payments with payment surety for both consumers and producers. Larger intermediaries, such as existing on-line merchants and auction sites will also benefit from a low-cost payment device for high-volume, low-dollar payments for all of the same reasons outlined above. On-line merchants are currently facing a variety of problems including a low volume of on-line purchases relative to the number of site viewers; a high volume of charge-backs for on-line purchases; non-integrated 'patchwork' systems for payment processing; high fraud rates and high processing fees. All of these factors serve to depress the potential number of customers who are comfortable purchasing on line as well as depressing the profitability of on-line merchants.

Furthermore, to date, there is no efficient way for consumers to

make payments to other consumers using the Internet. All traditional forms of person-to-person exchange include the physical exchange of cash or checks rather than a real-time digital exchange of value. In addition, the high cost of retail wire transfers (i.e., Western Union) is cost prohibitive to a significant portion of society.

Automated Clearing House (ACH) payments have begun to be used with respect to payments made via the Internet. These types of transactions typically involve payments made with respect to loans, insurance and utilities. It is predicted that ACH payments will not be widely deployed to on-line POS for two reasons. First, an ACH transaction does not provide transaction authorization, and secondly, authentication requires a pre-existing relationship between the customer and the merchant. Furthermore, ACH payments have to be received, deposited and cleared before the funds are available. In contrast to ACH transactions, credit and off-line debit cards require authorization but not authentication. Similarly, on-line debit requires authentication (i.e., a PIN or other authentication). As with credit and debit card transactions, ACH transactions requires that the user provide the merchant (payee) with the "keys" to the user's account. This pull model of effectuating payments again raises the security concerns discussed herein (e.g., fraud).

Two significant drawbacks with some or all of the above models for Internet POS payments are that: 1) a pre-existing relationship between the consumer and the merchant must exist; and 2) the consumer is required to provide the merchant with his or her account and/or PIN. The first drawback of some of the above models cannot be practically overcome as it is impossible for a consumer to have pre-existing relationships with all of the

potential merchants conducting business on the Internet. With respect to the provision of the consumer's account and PIN number over the Internet, even though mail order companies have been operating in this manner for years, many consumers feel uneasy about electronically providing their account and PIN numbers to strangers over the Internet.

Figure 1 depicts the conventional debit/credit transaction model. In this model, if the consumer 100 desires to buy a compact disc (CD) from a web retailer 110, the consumer 100 electronically transmits its debit or credit card number and/or PIN to the web retailer 110. Upon receipt of this information from the consumer 100, the retailer 110 submits the proposed transaction to its bank 120 or merchant acquirer via the EFT system (not shown) for approval. The merchant's bank 120 then contacts the bank 130 (issuer bank) which issued the debit/credit card to the consumer 100. The issuer 130 checks the consumer's balance on the card and either approves or rejects the proposed transaction. This approval or denial is transmitted from the issuer bank 130 back to the merchant bank 120 which then informs the web retailer 110 of the approval or denial. If the charge to the debit/credit card was approved, the transaction is completed by the web retailer 110 shipping the goods to the consumer 100.

Some of the same drawback described above with respect to Internet shopping equally apply to electronic bill payment. The first drawback, requiring a pre-existing relationship between the consumer and bill payee is not as great a concern because this relationship most likely already exists between the consumer and the payee (e.g., the telephone, cable or utility company). The second drawback which requires the consumer to provide the payee with his or her account and/or PIN still remains a concern with

electronic bill payment. Although fraud is less of a problem for bill payment, since the consumer presumably has regular dealings with the payee, some consumers still view the provision of the payee with at least his/her account number a diminution in the consumer's privacy.

SUMMARY OF THE INVENTION

The present invention represents a new paradigm for effectuating electronic payments that leverages existing platforms, conventional payment infrastructures and currently available web-based technology to enable e-commerce in both the virtual and physical marketplace. The concept provides a safe, sound, and secure method that allows users (consumers) to shop on the Internet, pay bills, and pay anyone virtually anywhere, all without the consumer having to share account number information with the payee. Merchants receive immediate payment confirmation through the Electronic Funds Transfer (EFT) network so they can ship their product with confidence that the payment has already been received. The present invention further enables small dollar financial transactions, allows for the creation of "web cash" as well as provides facilities for customer service and record-keeping.

The structural components to the system of the present invention include: a Payment Portal Processor ; a digital Wallet; an Internet Pay Anyone (IPA) Account; a Virtual Private Lockbox (VPL); an Account Reporter; the existing EFT networks; and a cash card. The Payment Portal Processor (PPP) is a software application that augments any Internet browser with e-commerce capability. The PPP software sits in front of and provides a secure portal for accessing (linking to) the user's Demand Deposit Accounts (DDA) and IPA

accounts. The PPP enables the user to push electronic credits from its DDA and IPA accounts to any other accounts through the EFT network.

Although the PPP can be used as a stand alone product, in a preferred embodiment, the functionality of the PPP is directly incorporated into a new form of PPP enhanced digital Wallet in order to enhance the consumer's Internet shopping experience. Alternatively, hooks to the PPP can be incorporated into existing digital Wallets to add the unique payment feature of the PPP. Furthermore, features of online banking (e.g., funds transfers) can be incorporated into the PPP to allow for account maintenance and IPA account funding. In association with the traditional Wallet functionality and the Account Reporter of the present invention, the PPP is used to fund consumer's accounts, shop on the web, pay bills, pay anyone, store electronic receipts and transaction history, and review the user's recent account and shopping activity. The PPP thus provides consumers with a safe, secure, and convenient way to conduct financial transactions over the Internet.

The majority of the prior art electronic Wallets on the Internet today are primarily used as a convenience vehicle, merely providing a method of storing account number information and other form filling functions (e.g., shipping addresses). In contrast to traditional Wallets, the PPP enhanced Wallet of the present invention is associated with one or more DDA and/or IPA accounts. The PPP thus provides the user with a form of virtual cash that is secure and guaranteed. The PPP further contains a receipt feature and archive feature that maintains a transaction history of all payment activity with respect to accounts linked to the PPP. The PPP further has the capability to store miles, coupons, sweepstakes or other marketing incentives associated with use of the accounts linked to the PPP. The PPP enhanced Wallet enriches

the consumer e-commerce experience by eliminating the tedious process of filling out lengthy payment and shipping fields as this is done automatically. Merchants significantly benefit from the credit push and form filling features of the PPP enhanced Wallet, since research indicates that most e-commerce purchases are abandoned at the POS due to consumers' unwillingness to complete lengthy forms or provide personal credit card numbers. Furthermore, the automatic form filling features of the PPP enhanced Wallet reduces shipping errors, as the "ship to" address is automatically filled in, eliminating manual entry errors.

In one embodiment of the present invention, the user supplies the PPP with its credit card number. The user is then given the option given the option to fund the payment with his or her credit card. The PPP contacts the credit card issuer authorization for the credit in the amount of the payment. When the authorization is returned, the EFT credit to the payee is funded from the funds from the credit card. The user's bank then settles with the credit card issuer at the end of the day.

The IPA account is a special purpose account with limited functionality for originating electronic payments. Funds in an IPA account can only be accessed electronically by the user of the account using standard authentication procedures (e.g., a PIN). The electronic access to the IPA account can be accomplished through a PC, card reader, PDA, Interactive TV and cell phone technology, for example. This restriction provides an added level of consumer protection in that the consumer never has to provide any of its account information to any strangers. The above described PPP (operated by the user) securely communicates with the IPA account to initiate payments according to the present invention. One essential feature of the present

invention, completely contrary to the prior art, is that payments made from the IPA account are transmitted to the payee as a credit over the secure EFT network. As discussed above, only debit related transactions are currently initiated on the EFT system. The EFT credit message of the present invention thus represent a significant advancement in art which has no peers with respect to electronic commerce.

Similar to an IPA, the VPL is a limited function account. While an IPA can be accessed electronically, a VPL is constructed with a "receive only" functionality that enables a merchant (or any party) to receive electronic payments through the EFT. Therefore a VPL is a secure address that can be provided to the public as a means of receiving funds. These funds can then be automatically swept to either the user's corresponding DDA or IPA account, preferably once a day. As will be further described below, there are several types of VPL accounts according to the present invention: one for consumers, one for merchants and one that is initially linked to a cash card as described below. The card VPL is a receive only account that can only be debited via the use of the cash card and a PIN. The consumer and merchant VPLs can similarly be PIN debited to access the funds in the account. Unlike an IPA account, the VPL account cannot be used for initiating EFT credit messages. In one embodiment of the present invention, the IPA and VPL accounts are logically one account with two addresses for account. One address, (the IPA address) is only known to the user (and its issuing institution) and is used to make payments from the account. The other address, the VPL address, is used to receive electronic credits and can be freely published without any fear of fraud.

The Account Reporter is a portal for consumers or business to view the balance and transaction history of an IPA or VPL account. In addition to the features described above intended for use with an IPA account, the Account Reporter includes special functionality intended for use by merchants in association with their VPL accounts. The Account Reporter provides online, real-time transaction reports, and reconciles accounts receivable/purchase records against incoming EFT payment records. In addition, the transaction history of the VPL can be archived and retrieved via a payment search engine in the Account Reporter. This provides the merchant with powerful data mining, customer service, and order fulfillment (warehouse, shipping, supply chain management) tools at their fingertips. Credit card purchases on the web according to prior art methods are not connected to a cash management program. In contrast to these prior art systems, the VPL, connected with the Account Reporter, offers a complete purchasing and cash management opportunity for a merchant. The VPL and Account Reporter combination provides a merchant with instant payment receipt verification, accounts receivable functionality, order fulfillment facilitation, inventory control/supply chain management facilitation and data mining capability.

The Account Reporter is a flexible component offering instant payment confirmation, reconciliation and record retention so that merchants can track purchase orders against actual payments in real time. Every VPL transaction can be stored, searched, and retrieved. This archival/retrieval functionality is the perfect instrument for customer service and data mining. The Account Reporter offers all of the above features, without the need to actively engage in funds management as is required with the prior art.

Using the structures described above, the methods of the present invention allow consumers and businesses to conduct secure and economical shopping on the Internet, to pay anyone online, pay anyone funds online, pay bills electronically online, and even use a linked cash card. The methods and structures of the present invention enable e-commerce in both the virtual and physical marketplace through the use of legacy platforms, the conventional payments infrastructure and currently available web-based technology.

The present invention furthermore solves many, if not all, of the problems of the prior art described above. Currently, all Internet transactions use "pull" technology in which a merchant must receive the consumer's account number (and in some cases PIN number) in order to complete a payment. The payment methods of the present invention conversely use "push" technology in which users (consumers or businesses) push an EFT credit from their IPA or DDA accounts to a merchant's account, without having to provide their own sensitive account information.

The present invention provides an enhanced level of security because sensitive financial information is not carried over the Internet. All of the financial transactions are executed through the secure EFT network. This method of the present invention provides buyers and sellers with the comfort that their transactions are both secure and private. Furthermore, since payment confirmations are immediately received through the EFT network, sellers can rest assured that the buyer's funds are "good" before the purchase transaction is completed (i.e., before the goods are released (shipped) to the consumer).

The present invention provides significant economic advantages over the prior art systems and methods. The majority of the technology required to implement the present invention already exists, which results in

reduced startup costs for an institution practicing the present invention. Payments made according the present methods pass through a mature, established EFT switch which results in a low transaction cost. The payment mechanisms of the prior art are not optimal for processing small dollar transactions. However, the efficient, low cost architecture of the present invention supports payments of any size and is perfect for low dollar purchases. This architecture supports the growing need for Internet micro-payments for goods such as on line articles and music files, yet supports large value payments as well.

By the structures and methods of the present invention, the two most significant disadvantages of the prior art online shopping methods described above have been overcome. First of all, the buyer (consumer or business) is no longer providing its confidential financial information to strangers over the Internet. Rather, the buyer is dealing directly with its own trusted institution (in a preferred embodiment a bank). Furthermore, no pre-existing relationship has to exist between the customer and the merchant.

For the merchant, the present invention significantly reduces the transactional cost as compared to the use of credit cards. The method also provides a reduction in fraud and credit losses, while the finality of the transaction virtually eliminates dispute and chargeback processing from the viewpoint of the financial institution. For financial institutions, the present invention all but eliminates the potential of fraud that is inherent with credit card transactions. As consumers are typically only responsible for the first $50 of fraudulent transactions, banks typically absorb the sometimes significant costs associated with fraud. The ability for hackers to steal consumer's account numbers (e.g., credit card numbers) from an Internet

merchant is completely eliminated since the merchant never receives such information.

The present invention is not limited to the case of a consumer making purchases from Internet merchants or business to business transactions. The method has further, broader applicability by providing the ability for anyone with an account at an institution to transfer funds to anyone else who also has an account at the same or a different institution. The pay anyone feature of the present invention allows parties to electronically transmit funds instantaneously without the expense of today's wiring fees.

BRIEF DESCRIPTION OF THE DRAWINGS

For the purposes of illustrating the present invention, there is shown in the drawings a form which is presently preferred, it being understood however, that the invention is not limited to the precise form shown by the drawing in which:

Figure 1 illustrates the prior art method of Internet payment processing using debit and/or credit cards;

Figure 2 depicts a first embodiment of the present invention that enables Internet shopping;

Figure 3 depicts a pay anyone embodiment of the present invention;

Figure 4 illustrates a prepaid cash card embodiment of the present invention;

Figure 5 illustrates a pay anyone embodiment of the present invention;

Figure 6 illustrates a bill payment, biller direct embodiment of

the present invention;

Figure 7 illustrates a bill payment, service provider consolidation embodiment of the present invention;

Figure 8 illustrates a bill payment, customer consolidation embodiment of the present invention;

Figure 9 illustrates a structure and process for funding an account associated with an electronic Wallet according to the present invention; and

Figure 10 illustrates an embodiment of the present invention in which EFT credit pushes are funded by a user's credit card.

DETAILED DESCRIPTION OF THE INVENTION

In contrast to the credit card, on-line and off-line debit and other payment models existing today, one of the unique features of the method of the present invention is the flow of the payment instruction and the payment which follows. In the credit card, on-line and off-line debit models, a buyer provides a seller with an instruction that authorizes the seller to collect funds from the buyer's account. Depending on the system, this debit instruction results in a guaranteed payment in the case of an on-line debit rather than a lengthy wait for funds (such in the case of a check) or something in between in the case of an off-line debit and credit card. The difference between the prior art models and the model of the present invention can be described as the difference between a "pull" and a "push" model. In the conventional models of today, the seller "pulls" the payment from the buyer's account using a debit instruction, while in the present invention the buyer "pushes" an EFT credit to the seller's account.

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Figure 2 illustrates a first embodiment of the present invention in which a consumer (including businesses acting as consumers) can perform Internet shopping. Figure 2 further illustrates the main structural components of the present invention. Element 200 represents the device through which the consumer accesses the Internet. In a preferred embodiment, the workstation 200 is a Personal Computer (PC) loaded with an Internet browser 210 such as Netscape™ Navigator™ or Microsoft™ Internet Explorer™. In alternative embodiments, the user can access the Internet using any Internet ready device such as a web enabled ATM machine or a Personal Digital Assistant (PDA) such as a Palm Pilot™, a cell phone or an interactive TV. The present invention is not limited by any particular physical device and can employ any device that provides access to the Internet. For example a public kiosk which provides access to the Internet can be used to practice the present invention.

As the user accesses the Internet using its Browser 210, a Wallet 215 is launched by the user. The Wallet 215 can be downloaded and installed from a website. Using thin wallet technology, the majority of software and databases comprising the Wallet 215 resides on a host web server and the user accesses the Wallet 215 through a website or a button (e.g., icon) on the Browser 210. Some functionality of the Wallet 215 can be operated on the workstation 200 itself, without the requirement of attachment to the Internet. In addition to PC-based access as described above, the Wallet 215 can be downloaded to various non-PC devices such as PDAs, cellular telephones, and interactive TV's. The consumer may access the Wallet 215 while logged onto the Internet by selecting a wallet button on the Browser 210 toolbar, or selecting a wallet icon at the merchant's web site. For non-PC devices, the Wallet 215 can be activated via a separate application, a browser link, or

through a sponsoring website. In a preferred embodiment of the present invention, a business, such as a bank, operates the server that hosts the Wallet 215 Application Programming Interface (API). This embodiment provides for additional security of the connection between the Wallet 215 and the user's IPA 230 or other accounts maintained at the institution.

Figure 2 depicts the preferred embodiment of the present invention in which the Wallet 215 incorporates all of the functionality of the PPP 227 into a single component. Such a PPP enhanced Wallet 215 performs all of the conventional (e.g., form filling) functions of a traditional wallet and further has the payment capability of the PPP 227 as described below. As alternatively depicted in Figure 3 (discussed below) the Wallet 215 can be the conventional form filling wallet with the appropriate interface to the PPP 227. In a third embodiment (illustrated in Figure 5 discussed below), the Wallet 215 is not used at all, and the PPP 227 operates as a stand alone component for generating the payment authorization. The following discussion of the PPP enhanced Wallet 215, particularly in regard payment functions apply equally to the PPP 227 when used as a stand alone component or when used in conjunction with a traditional wallet.

The user's log-in to the PPP enhanced Wallet 215 is secure and encrypted to protect the confidentiality of any financial information associated with the operation of the PPP enhanced Wallet 215. Once accessed, a window containing the PPP enhanced Wallet 215 is launched on the workstation 200 and remains open during the user's session. The PPP enhanced Wallet 215 window has the ability to communicate with other open browser windows. In a preferred embodiment, the user's connection to the PPP enhanced Wallet

215 is through the Internet. In an alternative embodiment, the connection from the user's workstation 200 to the PPP enhanced Wallet 215 software can be through a separate dial up line or third party private network.

As one of its primary functions, the PPP enhanced Wallet 215, though the functions provided by the PPP 227 serves as the portal to an Internet Payment Account (IPA) or a DDA account 230 described in more detail below. In a preferred embodiment the PPP enhanced Wallet 215 stores the following types of information: Form filling information such as credit card numbers, debit card numbers, shipping addresses, alternate shipping addresses, frequent flyer accounts, membership discounts (e.g., AAA, AARP), loyalty programs and e-mail addresses; Discount information such as e-coupons, rebates and merchant-specific spending certificates; Points or miles accrued for use of the accounts associated with the PPP 227; and Convenience information such as frequently paid VPL #'s (described below), bill payment account #'s, receipts, e-commerce bookmarks, shopping lists. A preferred download folder is installed on the user's local hard drive. The PPP enhanced Wallet 215 has pull down menus that are used to select, edit, update, sort, import and export any of the above information.

Using the above information, the PPP enhanced Wallet 215 automatically fills in electronic merchant purchase forms with the user's shipping address, e-mail address, discount numbers, etc. The PPP enhanced Wallet 215 supports virtual cash (IPA/DDA) payments in accordance with the present invention, traditional credit and debit card "pull" payments and a combination of the two types of payments as is further described below. Upon receipt of an electronic purchase message from a merchant web site 255 as will be further described below with respect to the method of Figure 2, the

PPP enhanced Wallet 215 user is able to: 1) approve a purchase; 2) initiate the payment through a payment authorization to the consumer's bank 220; 3) verify the accuracy of the merchant's payee information (identification of the merchant's account 235 at the merchant's bank 275); 4) generate a purchase confirmation 244 that is transmitted to the merchant web site 255 or VPL reporter 240; and 5) generate a receipt that can be stored at the server hosting the PPP enhanced Wallet 215 or the user's storage (e.g., hard drive) on workstation 200. The PPP enhanced Wallet 215 user receives a confirmation message indicating that no purchase has been made if a purchase is not completed.

The PPP enhanced Wallet 215 includes a "Time Out" feature whereby purchase requests not approved by a user for a set amount of time (e.g. 10 minutes) will be invalidated. For "Pay Anyone" payments as further described with respect to Figure 3 below, the PPP enhanced Wallet 215 supports a user defined recission period (e.g., 30 minutes) during which the user can reverse a transaction.

An additional feature of the PPP enhanced Wallet 215 are parental control settings. In establishing an IPA account, the user is given the opportunity to establish subordinate (child) IPA and/or VPL accounts that are controlled by the main (parent) IPA account. For example a parent might want to establish an IPA/VPL account for each of its children. Through the IPA account linked to the parent's PPP enhanced Wallet 215, the parent is able to view and control all aspects of the children's IPA/VPL accounts. For example, the parent might limit the funding of the children's accounts such that they can only receive funds from the parent's account. This will prohibit strangers from sending money the children's accounts. The parent could also

limit the amount or number of any transactions out of the account or limit (block) any payments to unapproved VPL accounts (e.g., associated with unapproved Internet sites)

Using functionality from online banking services, the PPP enhanced Wallet 215 is able to be associated with (linked to) some or all of the accounts maintained by the user at the bank 220. The user is thus able to transfer funds, amounts, value, from one account to another (e.g., to an IPA account 230 from a savings account, or VPL account 235) with ease. Although in the preferred embodiment of the present invention, the IPA 230 and VPL accounts are maintained at a financial institution (e.g., a bank), it is readily appreciated that any businesses that can attach to the EFT network 270 are capable of maintaining the accounts 230, 235 and performing the operations of the present invention.

A unique transaction number is included in any payment communications to and from the PPP enhanced Wallet 215. All of the payment communications are stored by the PPP enhanced Wallet 215 for review and auditing by the user. Examples of stored payment communications include payment messages from a merchant or billers, payment authorizations from the PPP enhanced Wallet 215 to the bank 220, and payment confirmations 244 to the merchant (255 or 240). The transaction number for a particular transaction is included in each communication and allows for swift correlation and indexing of communication records (e.g., reconciliation). The PPP enhanced Wallet 215 interfaces with the Account Reporter described below, which will have access to all archived transactions. In a preferred embodiment, the payment communication records are stored in a common database and both the PPP enhanced Wallet 215 and the Account Reporter

associated with (attached to) a particular accounts are able to access the common database for these accounts. Transactions are stored for audit as well as disaster recovery purposes. The PPP enhanced Wallet 215 allows the user to view all transaction histories including receipts and messages. These historical items are sortable by date, function (bill payment, pay anyone, shopping, etc.), amount, payments initiated or received, merchant, etc.

As is further described below, the PPP enhanced Wallet 215 is responsible for initiating the push of the credit to the merchant's account 235. In order to perform the credit push over the EFT, the PPP enhanced Wallet 215 requires the merchant's payee information that uniquely identifies the merchant's Virtual Private Lockbox (VPL) 235. This payee information includes the merchant's bank 275 identification number (typically six digits) and the number of the VPL account 235 (typically ten to thirteen digits). This payee information constitutes an address to which the Wallet 215 can push credits. Payment communications from PPP enhanced Wallet 215 can additionally identify the PPP enhanced Wallet 215 user's name (if required) and include the unique transaction number. The PPP enhanced Wallet 215 can make repeated payments (daily, weekly, etc) as well as scheduled payments (on a specific calendar day or in a specific # of days). If the PPP enhanced Wallet 215 is linked to a DDA account, DDA debits such as checks, returned checks, ACH payments, etc. are not charged against funds in the primary IPA account 230 associated with the PPP enhanced Wallet 215. Users are required to acknowledge acceptance of a PPP enhanced Wallet 215 agreement prior to their first transaction using the PPP enhanced Wallet 215 including a requirement to return any proceeds received in error.

Prior to conducting any on-line purchases or making any

payments using the methods of the present invention, the consumer establishes an Internet Payment Account (IPA) 230 with its bank 220. Alternatively, a DDA account 230 can be used, but this is less preferable. For one reason, it is envisioned that only small payments are to be made from the IPA account 230 and accordingly less funds would be kept in the account as opposed to the funds normally maintained in a DDA account.

The IPA account 230 is a specialized account used specifically for electronic commerce in accordance with the present invention. Once the IPA account 230 has been established, the user is able to fund this account 230 from its normal DDA checking or savings accounts, consumer's Line of Credit, or credit, or debit card account held by the bank 220 or any other account from which the consumer can transfer funds (e.g., another DDA account or credit card account at another financial institution). The IPA account 230 provides the user with a confirmation capability in order to verify that the amount drawn is correct. The IPA account 230 and the VPL account 235 (described below) both allow PIN debit transactions for withdrawals from the accounts.

In a preferred embodiment, the IPA account 230 is combined with a VPL account 235 into a single account. The IPA account functionality is accessed through a first address to the account by which funds can be transferred out of the IPA account. Only the user has access to this address and it is password and or PIN protected. If the user has several IPA accounts, when the user accesses its PPP 227, a single password and or PIN procedure provides access to all of the user's accounts. The VPL functionality makes the single account appear as a receive only account and is accordingly accessed through a second, preferably different address. This second address can only

be used for receipt of credits, preferably electronic credits according to the present invention. Since the second address can only be used to receive funds, the user can freely publish the address without any fear of someone fraudulently transferring money out of the account. The VPL portion of the account can be accessed for PIN debit transactions as will be further described below in connection with the physical card embodiment of the present invention (see Figure 4)

The establishment of a separate IPA/VPL account 230 for electronic credits and payments is preferable from a user's point of view in order to provide a separate accounting from the user's normal DDA. As with its regular accounts, a transaction history for the IPA 230 is archived. As the IPA account 230 is not necessarily interest bearing, it is envisioned that the user would accordingly only fund small amounts into this account in order to cover potential on-line purchases. The user can set up periodic (e.g., weekly) automatic funding of the IPA account 230. In an alternative embodiment of the present invention, the user's payments in accordance with the present invention may be made directly against a normal DDA account.

The IPA 230 or VPL 235 accounts can have physical companion card for physical, in person, purchases and withdrawals as will be further described below with respect to Figure 4. Each of the IPA 230 and VPL 235 accounts allow physical access via ATM's or merchant card readers for PIN debit transactions.

One of the most significant features of the present invention is the use of the existing EFT networks 270. Although these networks 270 have provided secure transfer of funds for years, the use of these networks in accordance with the present invention is heretofore unheard of. In the use of

the EFT network, the present invention provides real time credit. This is contrasted to the prior art debit message methods in which the only semblance of credit provided in a reversal of a prior debit transaction (e.g., credit cards). The EFT networks 270 are used to effect IPA transactions, fulfill IPA reporting functionality, and can be used to fund the IPA 230. As well as supporting the transmission of real time credit messages, the EFT network 270 transmits messages containing special transaction codes and account and bank number structures (addresses) used to uniquely identify IPA transactions. Furthermore, the EFT network 270 can be used to verify the existence and validity of destination accounts as further described below.

As described above, similar to an IPA account 230, the Virtual Personal Lockbox (VPL) 235 is a limited function account. While an IPA 230 can be accessed electronically for outgoing payment transactions, a VPL 230 is constructed with EFT network "receive only" functionality. This feature of a VPL account (or a VPL address for a dual access IPA/VPL account) provides a merchant (or other party) to receive electronic credits (e.g., payments) through the EFT 270. In this manner a VPL 235 is a secure address that can be provided to the public as a means of receiving funds. Once received by a VPL account 235, funds can then be manually or automatically swept by the merchant's bank 275 to one of the owner's other accounts 280 (e.g., a DDA or cash concentration account 280). This sweep can be performed once a day, or more or less than once a day as dictated by the needs and objectives of the VPL user.

Like an IPA account 230, the VPL 235 can have a physical companion card for physical, in person, purchases and withdrawals. The VPL 235 can allow physical access via ATM's or merchant card readers for a PIN

debit transaction using a user only access (address) for debit transactions from the VPL 235. Although providing the general function of an account (to hold funds), it must be repeated that the basic functionality of a VPL 235 is distinct from the IPA account 230 functionality. The VPL 235 is a secure lockbox into which funds can be transferred but cannot be taken out (except during the sweeping process or other PIN transactions described herein).

In preferred embodiment of the present invention, VPL addresses for various merchants and other receivers of electronic payments are made available in a public directory 325 (see Figure 3). Since the 'receive only' address of a VPL account 235 is what is published in the public directory, merchants and other users of the 'receive only' VPL 235 are alleviated of the fear of the fraud. In the preferred embodiment, the directory of VPL addresses 325 is maintained on an Internet accessible server or servers and accessed through a website that provides the capability to search and select and retrieve VPL information. Alternatively, the directory 325 can be accessed by PDA, kiosk or by phone using voice recognition or other telephony technology. The directory 325 can be used by the PPP enhanced Wallet 215 to verify the accuracy of a VPL address before it commits to transferring a credit message to the account designated in the VPL address.

As described above, the address for an IPA 230 or VPL 235 consists of an identification of the institution at which the account is held (typically six digits) and an identification of the account (typically ten to thirteen digits). For consumers (the "white pages"), the directory 325 contains but is not limited to the VPL address, the last and first name of the VPL consumer, the user's Post Office address, phone and email address. For businesses (the "yellow pages"), the directory 325 contains but is not limited

to the VPL address, the business name, the industry or type of business, the business' Post Office address, phone and email address.

As briefly described above, the Account Reporter 240 is a portal to view the VPL account 235. The Account Reporter 240 provides online, real-time transaction reports, and reconciles accounts receivable/purchase records 250 against incoming EFT payment records 245. Although primarily intended for use by merchants, much of the functionality of the Account Reporter 240 is incorporated in the PPP 227 Wallet 215. The PPP 227 preferably include a base set of requirements for consumers, and the Account Reporter 245 would contain added features required for merchants and businesses (e.g., reconciliation of purchase records and payment records).

The VPL account 235 updates the Account Reporter 240 as payment records (credit messages) and transaction numbers are received through the EFT messaging system 270. At the same time, any purchase orders 250 (in the form of a record) and payment confirmations (see below) are passed to the Account Reporter 240 from merchant and billing web sites. As seen in Figure 2, the Account Reporter 240 is also capable of receiving purchase confirmations 244 from the PPP 227. Purchase confirmations 244 and payment records 245 are retrievable, in real-time, from the Account Reporter 240. Account Reporter 240 users are able to view their records with respect to their VPL accounts 235 on the Internet. Although only one VPL account 235 has been illustrated in Figure 2, it is understood that a merchant is able to simultaneously maintain several VPLs 235. Each of these VPLs 235 is capable of being accessed and viewed by the single Account Reporter 240, much like a consumer is able to associate several IPA/VPL accounts with its PPP 227 and is able to view these accounts using the PPP 227.

In addition to the functionality described above with respect to the base features of the Account Reporter 240 (storing, reviewing, sorting transaction histories), a merchant embodiment of Account Reporter 240 includes additional functionality. A first of the additional functions provided by the merchant Account Reporter 240 is its reconciling capability that matches purchase requests 250 generated by the merchant's website 255 with shopper's purchase confirmations 244 and the EFT payment records 245. Any items that do not match are flagged by the Account Reporter 240 as exceptions for review. The merchant Account Reporter 240 further provides for identification (ID) and password security, offering varying levels of access authority to the users.

Additionally, the merchant Account Reporter 240 automatically updates the merchant's accounts receivable, inventory & fulfillment files. As a further extension, Account Reporter 240 also has fulfillment service capabilities whereby information from a merchant's website 255 is consolidated and communicated to a warehouse to initiate product shipment 260, as well as linked to United Parcel Service (UPS™), Federal Express (FedEx™), or other shipping services for shipping execution. The Account Reporter 240 contains essential customer service tools such as the ability retrieve/review electronic purchase orders/payments real time, and in turn the ability to email or autofax copies of such directly to customers. The Account Reporter 240 further provides data mining tools that collect statistics on buyer/shopper behavior, track seasonal and regional buyer/shopper trends, and track other key demographics. Based on these statistics, merchants can issue focused, customized electronic coupons through their Account Reporter 240.

In one embodiment of the present invention, the user of an IPA account 230 can specify whether or not the credits it pushes from the IPA includes any identification information at all (e.g., account number, name ...) One of the features of the electronic credit pushes of the present invention is that the credit pushes can be made completely anonymously, with the recipient of the credit having no way to determine from where the credit originated. The recipient of the credit is able to match the received credit with a proposed purchase using a transaction ID that is contained in the EFT credit push. In the Internet shopping embodiment described below, the Internet merchant provides the buyer with the transaction ID and the buyer includes the transaction ID in the EFT credit message sent to the Internet Merchant's VPL account.

If the user is less concerned with privacy, the user can include a partial or complete identification of itself in the credit push. If the credit push received by a VPL 235 does contain some identification information, the Account Reporter 240 can be configured such that the identities of individual buyers will not be available to the Account Reporter 240 without the prior consent of the user who initiated the credit to the VPL 235. For consumers, the Account Reporter 240 appears as a seamless part of the PPP 227, while for merchants and businesses, the Account Reporter 240 appears as a separate utility.

Merchant Web sites 255 are well known to those skilled in the art. Merchant Web sites 255 typically include code (such as HTML, XML, or ECML) for getting transaction BIN statements (payment messages) to the Wallet 215. As further described below these payment messages typically contain the merchant's VPL 235 address which includes the address of the

merchant's bank 275. The payment messages enable the consumer to push a credit from its IPA account 230 through the EFT system 270 to the VPL account 235. Merchant's websites 255 can provide a hotlink on the shopping site 255 that goes directly to shopper's PPP enhanced Wallet 215.

Having described the structural elements of the present invention, the following discussion illustrates an embodiment of the present invention related to Internet shopping. As in all of the remaining Figures 2-9, the method steps are illustrated in the Figures in small circles next to the structural element most closely related to the action being performed. In this embodiment, the consumer (user) initiates the process in step 2A by logging onto the Internet, launching the Browser 210 and selecting the PPP enhanced Wallet 215 icon from Browser 210 toolbar. The PPP enhanced Wallet 215 does not have to activated until the user actually wishes to buy something, but the PPP enhanced Wallet 215 could also contain lists of links to a user's favorite shopping sites (or billing sites as is further described below).

In step 2B, the user completes a certification procedure 205 in order to correctly identify him or herself to the PPP enhanced Wallet 215. Typically the certification process involved the user keying in the user's ID and password on the keyboard associated with the workstation 200. The user is thus authenticated and has access to their PPP enhanced Wallet 215. In step 2C, the user is then presented with balance information with respect the IPA accounts 230 associated with the PPP enhanced Wallet 215 and can select from several options. In a preferred embodiment the options presented to the user include: Shop on the Web; Pay Anyone (see Figures 3 and 5); Fund Accounts (see Figure 9); Pay Bills (see Figures 6-8); and View Account Activity.

Assuming the user has selected the Shop on the Web option in step 2D, the Browser 210 could be initially directed to special website list of approved merchants (which can also contain the VPL addresses for such merchants). Alternatively, the user is free to navigate the Internet to the merchant web site of their choice. In step 2E, the user has found a website 255 of a particular merchant and more specifically has found and selected an item for purchase from merchant web site 255. Since the PPP enhanced Wallet 215 is active, the merchant's site 255 recognizes user as a PPP enhanced Wallet 215 customer. In response to this recognition, all of the purchase fields (shipping address, name, etc.) required by the merchant site 255 are automatically populated from the PPP enhanced Wallet 215 as described above. Alternatively, the user can sign on to their PPP enhanced Wallet 215 after the user has found an item at a website for purchase. The user can either invoke the PPP enhanced Wallet 215 by clicking on an icon embedded directly into the merchant's web page 255, or by clicking on a wallet button on the Browser 210 toolbar.

In step 2F, the merchant site 255 generates and transmits to the user a bill payment message containing information with respect to the prospective purchase. The information provided by the website 255 in the bill payment message includes but is not limited to the following data: Merchant BIN; Merchant Account #; Transaction ID; and the Dollar Amount of the transaction. In step 2G the bill payment message is received by the Wallet 215 window. A window displays the bill payment message for review by the user. If the user changes his or her mind, the user can select a button on the window entitled Decline Purchase. If the user does want to complete the purchase, a Purchase Item button is selected. Although described above with respect to a

single item, it is clear that the above process equally applies the shopping cart method employed by most merchant sites 255. In the shopping cart method, after the customer has selected a number of items to purchase, the merchant site 255 totals the items and transmits a consolidated payment message to the PPP enhanced Wallet 215 in step 2F.

If the user has selected to purchase the item pursuant to the bill payment message from the merchant site 255, the PPP portion 227 of the PPP enhanced Wallet 215 in step 2H first verifies the user's balance in the primary IPA account 230 associated with the PPP enhanced Wallet 215. If there are insufficient funds in the IPA account 230, the user is asked if he/she would like to transfer funds from another account into the IPA account. Using online banking procedures, the PPP enhanced Wallet 215 is able to transfer funds from any account accessible by the PPP enhanced Wallet 215 into the IPA account 230. If there are sufficient funds in the IPA account 235, the PPP 227 generates a payment authorization message for transmission to the bank 220. The payment authorization message 225 contains the above described payee information (merchant VPL account and bank address) and can also contain a user defined memo field for entry of any information desired by the user (e.g., "payment for new mystery book").

In addition to generating and transmitting the payment authorization 225, the PPP 227 transmits a purchase acknowledgement directly to the merchant's website 255. Typically, in response to this purchase acknowledgement from the user's PPP 227, the merchant's website 255 creates a purchase record 250 in a database (not shown) for future use in reconciling with the actual payment confirmation 244 and/or payment record 245. As illustrated in Figure 2, the PPP 227 also send a payment confirmation

244 either to the website 255, or the merchant's Account Reporter 240. In the preferred embodiment, the payment confirmation 244 is in the form of an electronic message (e.g., an E-mail) to the Account Reporter 240. The payment confirmation 244 can be sent either before or after the PPP 227 has actually transmitted the payment authorization 225 to its bank 220, without any confirmation from the bank 220 that the payment was actually transmitted via the EFT network 270. Alternatively, the PPP 227 can wait until it has received confirmation from the bank 220 that the EFT credit message was actually sent through the EFT network 270.

In the preferred embodiment the banks 220, 275 which maintain IPA 230 and VPL accounts 235 also maintain the above described database that is used as a centralized record keeping archive in order to feed and retrieve transaction data. Such transaction data includes but is not limited to payment authorizations 225, payment confirmations, and the records required for the Account Reporter 240 including EFT transaction data.

In addition to the payment acknowledgment sent to the merchant's website 255, and the payment confirmation sent to the Account Reporter 240, the PPP 227 transmits the payment authorization 225 to the user's IPA account 230 to effectuate the actual transference of the funds from the user's account 230 to the merchant's account 235 via an EFT credit message on the EFT system 270. The consumer's bank 220 will require some form of authentication of the payment authorization from the PPP 227. This authentication can be in the form of a software certification, an encrypted PIN, or the mother's maiden name of the consumer. Once the bank 220 has authenticated that the message truly originated from the consumer, the bank 220 can then fulfill the payment authorization 225.

Upon receipt of this authorization for payment 225, in step 2I, the user's bank 220 debits the user's IPA account 230 to generate an EFT credit message in the amount of the authorized payment. As described above, the EFT credit message is completely different from traditional EFT messages that are debits or the reversals of debits. Once generated, the EFT credit message is transferred to the merchant's VPL account 235 via the ATM switch 270. Although the credit instruction is illustrated in Figure 2 as being processed directly by the accounts 230 and 235, it is appreciated that the records are actually processed by the messaging systems and processors of the user's bank 220, the merchant's bank 275 and the EFT network 270. The EFT credit message is essentially a guarantee of payment from the user's bank 220 (the funds being debited from the user's account 230) to the merchant's bank 275 (the funds being credited to the merchant's account 235). Settlement between banks 220 and 275 typically occurs once a day with respect to all outstanding credits and debits between the banks 220, 275, although the cash is available from the VPL account 235 upon receipt of the EFT credit message.

After the EFT credit message has been received by merchant's VPL 235, the receipt of the credit is detected by the merchant's Account Reporter 245 (step 2J). In response to the detection of the credit, the Account Reporter 240 preferably generates and stores a payment record 245 in the same database in which the purchase record 250 was stored in step 2H described above. Although only a single payment record 245 has been illustrated in Figure 2, it is appreciated that two payment records 245 can exist for a single payment transaction. The first payment record 245 can be generated upon the receipt of the payment confirmation 244 from the user's PPP 227. The second payment record 245 can be generated upon the actual receipt of the EFT credit

over the EFT system 270.

Once the payment record 245 has been stored, it can be reconciled by the Account Reporter 240 against the merchant's purchase record 250 (step 2K). In this manner, the accounting loop in the merchant's system can be closed, with the matching of the merchant's invoice (the purchase record 250) with the payment (the payment record 245). Alternatively, the Account Reporter 240 can reconcile the above described two payment records (one generated from the payment confirmation and one generated from the EFT credit message) against the purchase record 250. With Account Reporter 240, a merchant has a product that allows for secure transaction fulfillment, reconcilement ability, record-keeping and archive possibilities. Once the financial loop has been closed with the receipt of the payment record 245 by the merchant, the merchant can confidently ship the goods 260 to the consumer in step 2L. Shipment of the goods can entail physical shipment of a physical good, or electronic transmission of a digital good such as a music file.

In fulfillment of the guarantee established by the EFT credit message, funds are settled once a day in step 2M between user's bank 220 and the merchant's bank 275 through the EFT switch 270. Typically, hundreds or thousands of such payments occur back and forth between bank 220 and bank 275 during the day and for efficiency purposes, the actual net funds due from one bank to the other are only transferred once per day. For example, one bank 220 might have guaranteed $10,000 in EFT credit messages from one hundred of its customers to the other bank 275. On the same day the other bank 275 might have guaranteed $12,000 in EFT credits from fifty of its customers to the other bank 220. At the end of the day, bank 275 only sends

the difference, $2,000, to bank 220 and each of the banks 220, 275 ensure that the proper accounts in its own bank are debited and credited for the payments. As can be readily appreciated each bank performs this end of day settlement with hundreds of other banks, as is presently done with the current ATM system 270 transfer of funds. Again on a daily basis, the funds received into the merchant's VPL account 235 are swept by an automatic process into the merchant's cash concentration account 280, which can be a DDA or IPA account.

As is readily appreciated from the above description, the PPP enhanced Wallet 215 and the Virtual Private Lockbox (VPL) 235 significantly enhances the consumer and merchant experience when used for web shopping. The present invention completely solves one of the biggest problems of the prior art, the hesitancy of a consumer to provide financial account information over the Internet. Rather than the merchant "pulling" in the consumers account information and requiring authentication of the consumer, the PPP enhanced Wallet 215 "pushes" an EFT credit message to the merchant's Virtual Private Lockbox, without the merchant ever obtaining the consumers account information. This transaction is virtually instantaneous, provides privacy, security, and convenience to the consumer -- and guarantees funding, provides reconcilement, and supplies archival records to the merchant.

With respect to authentication, because the consumer is pushing the payment to merchants or other entities or individuals, rather than the merchants pulling payments from consumer accounts, the consumers do not need to authenticate themselves to the merchant. Rather, the consumers authenticate themselves to their own bank 220, which then executes the EFT credit payment to the merchant's VPL account 235.

This method of the present invention is quite attractive to consumers because they can pay any merchant regardless of the existence of a pre-existing relationship with that individual or entity. The transaction can furthermore be conducted from anywhere there is access to the Internet. The IPA account 230 can be used and managed through the consumer's PC, a web enabled ATM, by phone or by any other web enabled device. The present Internet shopping payment method is extremely easy for online banking customers to adopt. The method allows consumers to conduct online shopping without having to provide any personal confidential financial information to unknown merchants. The method allows consumers to conduct these financial transactions solely with her or his own financial institution.

With respect to merchants that are paid by the method of the present invention, there are several advantages. This method opens up a universe of buyers/payors who do not have access to or the desire to use credit or debit cards online. Very little effort is required on the part of a merchant which only has to publish its bank 275 and VPL deposit only account 235 information on its web site 255 or other public directory (see 335 in Figure 3). If a merchant has been using traditional credit card methods, the present invention provides the merchant with significant savings in credit card processing, repudiation costs, fraud loss, and chargeback costs. The present invention also provides the merchant with the ability to economically accept micropayments.

Figure 3 illustrates a second embodiment of the present invention in which the structures described above can be used by a user to pay anyone. The PPP 227 of the present invention provides the user with tremendous flexibility. Anyone with using a PPP 227 can conveniently send

funds to anyone else with an IPA/VPL account. This funds transfer is instantaneous and at no cost to the consumer, and is conducted in a secure environment.

As described above with respect to the Internet shopping model illustrated in Figure 2, in the pay anyone model of Figure 3, in steps 3A-3C, the user logs onto the Internet, launches its browser (not shown in Figure 3) and launches the Wallet 215. In the embodiment of Figure 3, the Wallet 215 is a traditional Wallet with the appropriate interface to the the PPP 227. When the user wants to activate the PPP 227, the user is required to key in its user ID and password, by which the user is then authenticated and has access to their the accounts 230 associated with the PPP 227. The user is then presented with its account balance information and can select from several options including Shop on the Web, Pay Anyone, Pay Bills, Pay Anyone, Fund Wallet, Review Account Activity, Edit Wallet information, or Go to Customer Service.

In the present embodiment illustrated in Figure 3, the user selects the Pay Anyone option from the menu and the user is presented with several options in the Pay Anyone menu screen in step 3D. These options include: manually keying in the payee's VPL number; selecting a prior payee from a drop down menu; Add/Remove/Edit a payee from drop down menu; and the option to go to an online directory (325) of VPL numbers of various payees. In the particular embodiment illustrated in Figure 3, the user keys in (or selects) the payee's VPL address, the dollar amount of the payment, and a description of the reason for the payment, the description being optional.

In step 3E, the above described payment information is transmitted to payee's Wallet 315 (or PPP 227, not illustrated). The payee's Wallet 315 verifies the VPL number specified by the user and provides an

authorization to make the payment. In step 3F, the payee's Wallet 315 confirms that the information is correct and transmits to the user (payor) a payment message with the following data: Payee BIN; Payee Account #; Transaction ID; the dollar amount of the payment; and an optional description. In step 3G, upon receipt of the payment message, the user reviews the message and selects "OK to Pay". Step 3D through 3G are an optional process since the PPP 227 can unilaterally initiate the push of an EFT credit message without ever having contacted the receiver of the credit. In such a blind push of a credit it is recommended that the PPP 227 consult an online directory 325 to verify the accuracy of the address to which the EFT credit message is to be sent.

In step 3H, the user's PPP 227 sends the payment authorization 225 to the user's IPA account 230. In parallel, the user's PPP 227 transmits a payment confirmation of the expected payment to the payee's Wallet 315 or Account Reporter 340 which creates an expected payment record 350. The user's PPP 227 goes through the certification as described above in order for the user's bank 220 to properly identify the payment authorization 225. In step 3I, the EFT credit message is passed from user's IPA account 230 to the payee's VPL 335 via the ATM switch 270. As described above, the payee's VPL 335 may actually be the receive only address of an IPA account maintained by the payee.

In an alternative embodiment, a verification message is first sent though the EFT network 270 to the destination account 335. The purpose of this verification message is to verify the existence and identity of the VPL account 335. In response to the receipt of the verification message (assuming the VPL address was accurate and the message was received), the VPL

account sends back a response message that includes a text description of the owner/user of the VPL account 335. This response message is then displayed to the user via the PPP 227 so that the user can verify that the account 335 to which it is about to send a credit is actually owned/used by the party to which the user intend to send the credit.

This verification procedure can be used in the Internet shopping model described above with respect to Figure 2. In fact, the verification procedure is useful in thwarting any attempts at hacking of the VPL address transmitted (step 3F in Figure 3 and step 2F in Figure 2) via the Internet in the payment message from the merchant (255 in Figure 2) or other payee (represented by Wallet 315 in Figure 3). For example, if the payment message originated from Amazon™ and included Amazon's VPL 335 address, the verification procedure described above through the secure EFT 270 network would inform the user that the owner of the VPL 335 was truly Amazon. If a miscreant (e.g., Joe Hacker) had intercepted the payment message and inserted its own VPL address, the response message in accordance with the verification procedure will visually inform the user that the VPL address to which it will send the credit is owned by Joe Hacker. At this point the user can abandon the transmission of the EFT credit and try and identify Amazon's true VPL address.

In an alternative verification procedure, the PPP 227 can echo back to the sender of the payment message (merchant 255 in Figure 2 or Wallet 315 in Figure 3), the VPL address contained in the payment message. The sender can then verify for itself that the user has the correct VPL address to which to send the credit. This alternative verification process requires the hacker to intercept and alter two separate messages. Although better than no

verification, the alternative procedure is still not as attractive as the EFT network 270 verification as it occurs in the unsecured Internet space.

Returning to Figure 3, in response to the receipt of the EFT credit message by the payee's VPL 335, a payment record 345 is generated (step 3J). Upon the receipt of the payment record 345, the payee's Wallet 315 or Account Reporter 340 in step 3K is able to reconcile the expected payment record 350 against the actual payment record 345. Further in response to the receipt of the EFT credit message, the payee bank 375 credits the payee's VPL account 335 and the payee now has immediate use of funds. These funds can in turn be used for web shopping, bill payment, pay anyone, or can be withdrawn at an ATM using the card feature described below.

In concluding the pay anyone process, as with the embodiment illustrated in Figure 2, funds are settled once a day between the user's bank 220 and the payee's bank 375 (step 3M), and the funds can be swept into the payee's DDA or other IPA account 380 (step 3N).

The pay anyone process described above is a very attractive payment method for consumers. For example, the consumer might be responding to a classified advertisement (electronic or traditional paper) or purchasing an item or a service through an electronic auction site such as eBay™. In either of these cases, the consumer can obtain the payee's VPL account 335 information (e.g., BIN, account number ...) in a variety of ways. In one method, the consumer obtains this information electronically from the service where it contacted the individual (e.g., through eBay™). Alternatively, the consumer can obtain the necessary destination account information through offline methods such as the traditional paper classified advertisement or through an Email which has been "pushed" to the consumer

by the potential payee. The potential payee is protected using these methods since the VPL account 335 is a receive only account and no one can access the account to fraudulently withdraw money from the account. The user can furthermore obtain the payee information from the online directory 325, from a pull down menu on the Wallet 215 or by keying in the information manually.

Figure 4 illustrates an embodiment of the present invention involving a physical card associated with a VPL or IPA account. In this embodiment, the physical cards are linked to IPA or VPL accounts containing an initially established pre-set amount of cash. The card is issued to the IPA or VPL account user in order for the user to access the IPA or VPL account in the physical world. Furthermore, the cards can be purchased at vending machines placed in convenient e-commerce locations or other distribution outlets such as at the mall, convenience stores, or banks. In a preferred embodiment, when a user establishes a traditional Wallet 215, the user is offered an option to establish an IPA/VPL account, receive a PPP enhanced Wallet 215, and receive a physical card associated with the IPA/VPL account. Upon selecting this option, the card is mailed to the IPA/VPL user.

In the vending machine embodiment, the card is purchased from the vending machine with pre-funded with set increments of currency. These increments are associated to specific account number ranges, and are linked to IPA/VPL accounts. In one embodiment, the physical card is pre-activated (i.e., ready for immediate use). Alternatively, the card can be automatically activated upon its disbursement from the machine, or by the consumer making a toll-free call to a customer service line, or activated upon the user's first use of the card. The purchase of a card at a vending machine establishes a IPA/VPL account for the purchaser. As an alternative to the preset association

of a card to an account and dollar amount, the association of the card to the account and the funding of the account can be accomplished dynamically as the user is purchasing the card.

Once purchased, the cards can be accepted at ATM's and merchants that are outfitted with card readers. Since the cards are PIN protected, they are safer than cash. The card has the IPA/VPL account number as well as a PIN. The PIN is printed on a sticker affixed to the back of the card when the card is issued. The account number is stored on the magnetic stripe on the back of the card. The VPL portion of the account associated with the card can receive EFT credits as described above and can funded from other accounts as also described above. The card can be used to withdraw funds at an ATM and make purchases from any merchants that accept debit cards.

For card purchased by someone who did not previously have a IPA account, in order to subsequently use EFT credit pushes as described above, the card owner will be required to establish an IPA account with the sponsor of the card. For example, if the sponsor was a bank, the user signs onto bank's website, the new card owner keys in the card number and PIN to synchronize the VPL with a newly created IPA account for the user. This synchronization will add the IPA account to the card link. The user can then specify against which account portion, IPA or VPL, debits will be made when using the card. The user will also be asked to indicate whether any funds received by the VPL will be swept to the newly created IPA or to an existing DDA account.

One specific embodiment purchasing and using a physical card is illustrated in Figure 4. In step 4A, the purchaser selects a card from either a vending machine 400 or a vending enabled ATM (not shown) or other

distribution outlet. In a preferred embodiment, cards can be purchased for as little as a $1, or in larger ATM-like increments. After making a selection, the purchaser is prompted to pay for the card. Several purchasing options are available, including cash, debit cards and credit cards.

In step 4B the card is disbursed from the machine 400 with a pre-assigned PIN as well as instructions for using the card. The card is either pre-activated or alternatively, the dispensing machine 400 sends an activation message to the card sponsor upon its purchase, or the card is activated upon its first use, or the user can phone in to activate the card. The distribution outlet (e.g., vending machine) also provides the purchaser with a printed receipt that can be used in the event that the user loses the physical card.

With the card in hand, the user is able to withdraw funds from the account associated with the card or making store purchases using the card. In step 4C, the card owner inserts the card into an ATM machine 430 or a merchant card reader at a merchant's Point Of Sale Location. The user then keys in the PIN number to identify her or himself as the proper owner of the card. In step 4D the merchant's card reader, which is connected to the EFT network 270, transmits a debit message through the EFT switch 270 to the sponsoring bank 410.

As similarly depicted in Figure 2, the debit message is seen as being received directly by the user's VPL account 420, but in practice, it is realized that all EFT messaging occurs through the systems of the bank 410. The message is transmitted to the bank 410 as an online PIN debit transaction against the user's VPL account 420. Upon verification that there are sufficient funds available in the VPL account 420 associated with the requesting card, the transaction is authorized by the VPL sponsor 410 and the funds are

deducted from the balance in the VPL account 420. In step 4E, the authorization message is transmitted back to the ATM or POS 430 through the same EFT network 270 and the funds are released to the card owner (in the case of an ATM withdrawal) or credited to the merchant (store purchase) in step 4F.

Figure 5 illustrates an embodiment of the present invention in which the user can instantly transmit funds to anyone, specifically some one with a card and VPL account as described above. The payee (recipient of the funds) can withdraw the funds via an ATM through the use of the physical card, which the payee can either purchase at a vending machine or receive by mail when establishing an account, as described above. As with all of the embodiments of the present invention, this pay anyone feature ensures that the transaction is conducted in a secure environment.

As described above with respect to the embodiments of Figures 2 and 3, in the pay anyone method of Figure 5, in steps 5A-5C, the user logs onto the Internet, launches its browser (not shown in Figure 5) and launches its PPP 227. As readily appreciated in Figure 5, a traditional Wallet 215 is not required to practice the essential features of the present invention, as these features are enabled by the PPP 227. In Figure 5, the PPP 227 operated as a stand alone component. The PPP 227 requires that the user keys in its user ID and password, by which the user is then authenticated and has access to their PPP 227. The user is then presented with its account balance information and can select from several options including Shop on the Web, Pay Anyone, Pay Bills, Fund Wallet, and Check Account Activity. In the present embodiment illustrated in Figure 5, the user in step 5D selects the Pay Anyone option from the menu and is prompted for the VPL number of the account associated with

the card. The procedure set forth above with respect to the pay anyone method of Figure 3 is then followed.

In step 5E, user's PPP 227 generates a payment authorization with the following data: Payee BIN; Payee VPL number (card number); Transaction ID; and dollar amount. After reviewing the information, the user then selects "OK to Pay" on the workstation 200 screen (e.g., PC, PDA ...). In step 5F, the user's PPP 227 verifies the balance in the IPA account 230 and passes the payment authorization to IPA 230 if there are sufficient funds in the account 230 to cover the transaction. As an optional step, the payee information is validated (i.e., the VPL account associated with the card is valid and is owned by the intended payee). In step 5G, the EFT credit message is passed via the ATM switch 270 from user's bank 220 (IPA account 230) to the payee's bank 575 (VPL account 535).

The payee can withdraw the funds via an ATM 500 through the use of the physical card as described above. When the withdrawal is requested, a debit payment message is transmitted in step 5H from the payee's VPL account 535 to the ATM 500 provider bank (not shown). The payee now has immediate use of funds, and the withdrawal is made in step 5I. Alternatively, the payee can use the card at a POS using the above described PIN debit procedure. As with the previous embodiments, funds are settled once a day between the payor's bank 220, the VPL user's bank 575, and the ATM 500 provider bank.

The present embodiment is well suited for many different situations. For example, if a parent has a son or daughter away at college, the parent has provided the child with a card and associated VPL account 535, and is able to transfer funds to the child's account 535 in a simple, quick and cost

efficient manner by use of the present invention. Those skilled in the art will appreciate that the above embodiment can be used by a customer of the bank to transfer funds to anyone, such as the customer's gardener or a child at college as described above.

Figures 6, 7 and 8 illustrate three different bill paying embodiments according to the present invention. Figure 6 depicts a direct bill paying embodiment, Figure 7 describes bill payment including a service provider performing consolidation, and Figure 8 explains a bill payment method in which the customer performs the consolidation. In Figure 6, the direct method, a biller establishes an e-billing capability on its own web site 255. Once enrolled in the service, the customer receives an e-mail notification that a bill is available for payment at the biller's web site 255. Alternatively, the customer can receive a traditional paper bill. The customer launches its Wallet 215, Browser 210 and PPP 227 and then accesses the biller's web site 255. A payment is then eventually transmitted from the PPP 227 to the biller's Virtual Private Lockbox 235. As in all of the embodiments of the present invention, the transaction is secure, protects the customer's privacy, and provides the biller with guaranteed funding, reconcilement, and archival records.

As is illustrated in Figure 6, the biller/merchant first establishes an e-billing relationship with its customer. One way in which the merchant might do so is to advertise its e-billing service via e-mail, mail, or on the Internet. In step 6A, it is assumed the user has enrolled in the e-bill service at biller's web site 255 and is receiving monthly Email notification when bills are available. As previously described, in step 6B the user logs onto the Internet, launches its browser 210, Wallet 215 and PPP 227 and is presented with the

various menu options. In step 6C, the user selects the "Pay Bills" option and is given several options in the Pay Bills menu screen including "Pay Bills" and "Edit Billing information". Selecting the "Pay Bills" choice, the user navigates to the biller's web site 255. It must be recalled that the Wallet 215 already contains user's billing info.

Since web Wallet 215 is active, biller's website 255 recognizes the user as a Wallet 215 customer. In addition, the biller's website in step 6D verifies that customer has an established e-billing relationship. In step 6E, the biller's site 255 generates and transmits to the user a bill payment message that includes the following data: Biller's BIN; Biller's Account number; Transaction ID; and the dollar amount of the bill to be paid. In step 6F, the bill payment message is received by the Wallet 215 window and is displayed for review by the user. The user has several options including at least the choice to edit the bill (e.g., the amount to be paid) or the option to pay the bill as presented.

If the user selects the "pay the bill" option, the PPP 227 verifies the user's balance in its IPA account 230 and passes the payment authorization 225 to the IPA account 230 while simultaneously transmitting a payment confirmation 244 to the biller/merchant's website 255 or VPL Reporter 240 (step 6G). As alternatively shown, the PPP 227 can transmit the payment confirmation 244 to the biller/merchant's website 255 or VPL Reporter 240. In response to the receipt of the payment authorization 225, the EFT credit message is passed from the user's IPA account 230 to the biller's VPL account 235 via the ATM switch 270 (step 6H). A bill payment record 245 is then generated and stored by the biller's Account Reporter 240 in response to the receipt of the credit message from the EFT network 270.

In step 6J, upon generation of the payment record 245 which reflects the receipt of the funds to settle the bill, the payment record 245 is reconciled against the biller's accounts receivable files 600. As previously described, with the VPL account 235 and the Account Reporter 240, a billing merchant can execute secure transaction fulfilment, reconcile all its accounts, while securely archiving all its records for later, simple retrieval. As described above with respect to other embodiments, funds are settled once a day between user's bank 220 and the biller's bank 275 (step 6K). The funds can be swept to the biller's DDA or cash concentration account 280 (step 6L).

Figure 7 depicts a further bill payment method involving service provider consolidator. This bill payment method is similar to the first illustrated in Figure 6, however in this method a central service provider consolidates e-bills from many different billers 700. The service provider's site 755 enables a customer to review and pay bills with respect to several if not all of its billers (e.g., electric bill, phone bill, mortgage ...). The service provider is seamlessly outfitted with an archival capability, so that customers can review their bill payment history. The PPP 227 and IPA 230 once again provides the consumer with privacy, security and convenience while the VPL provides the service provider (and its customers, the biller/merchants) with guaranteed funding, reconcilement and archival records.

In step 7A, the user enrolls in the e-bill service at web site 755 of the Customer Service Provider (CSP). The e-billing relationship between the CSP and the user is established either directly in response to advertising by the CSP or though the billers 700 (customers of the CSP) advertising the services of the CSP to the users (who are customers of the billers). While enrolling (or at a later time) the user selects which bills it wishes to receive and pay

electronically through the CSP's service. The CSP can offer an archive service to billers 700 in order to store transaction history as well as providing a customer service unit to resolve transaction inquiries.

After enrollment, the user then begins to receive monthly email notification when bills are available from the billers 700 chosen by the user. The e-bill can be sent to the user either by the CSP or directly from the biller 700 to the user. In this second method, the biller must provide the CSP with an accounts payable file reflecting the e-bills it sent out, in order for the CSP to perform the below described reconciliation process for the biller 700. If the CSP is the party transmitting the e-bills to the users, the billers 700 must provide the CSP with the billing information. Many types of record keeping methods are supported. The billers 700 can push the billing information directly to the CSP's web site, or alternatively, the electronic bills can be channeled to the CSP via Spectrum or other electronic Internet bill payment aggregators.

Steps 7B and 7C are essentially the same as described above with respect to the direct bill paying embodiment of Figure 6. The only difference is that after choosing the "Pay Bills" option, instead of navigating to the biller's site directly, the user navigates to the CSP's web site 755. In step 7E , the user selects which bills to pay, and keys in the dollar amount to be paid on each bill (or selects the default, which is to pay the entire amount of the bill that was presented to the user). In step 7F, CSP site 755 generates and transmits to the user one or more bill payment messages. In one embodiment, the CSP generates a single payment message that includes the appropriate payment information for all of the bills paid during the session. In an alternative embodiment, a separate payment message is generated for each of

the bills paid by the user. In either embodiment, the message would include: the CSP's BIN; the CSP's VPL account number; a transaction ID (or IDs); the biller(s) name(s) and the dollar amount(s).

Steps 7F through 7L are essentially the same as described above with respect to steps 6F through 6L of Figure 6 and the elements that are the same shall not be repeated. Although only a single VPL account 735 is illustrated in Figure 7, it is appreciated that the CSP (or the billers directly) may maintain a VPL account 735 for each biller. Regardless of whether there is a single VPL 735 or several, the billers 700 themselves may view the contents of their receipts in the VPL 735 through the CSP's Account Reporter 740. In step 7J, the CSP performs the reconciliation process for each of its customers (i.e., the billers 700). In Step 7L, each biller's receipts are swept into their respective DDA or cash concentration accounts 780.

Figure 8 illustrates the third bill payment embodiment involving customer consolidation. In this third bill payment method, the e-bills 800 are delivered directly to the customer in the form of an e-mail or other delivery means. Each e-bill 800 contains a hotlink, which directs the customer to the biller's web site 855 (or to a CSPs website if the CSP handles the payments for the biller). When the customer activates its Wallet 215, the web site 855 recognizes the Wallet 215 customer and initiates a payment message as previously described. The customer can then push the payment to the biller in the same manner that a payment is pushed in the web shopping embodiment of Figure 2, the pay anyone embodiment of Figure 3, as well as the two other bill payment embodiments of Figures 6 and 7 using its PPP 227. As with all the previous embodiments, the biller once again receives the guaranteed funding, reconcilement, and archival records benefits of the present invention.

Figure 9 depicts a system and method for establishing and funding accounts associated with a PPP 227 or a PPP enhanced Wallet 215. As described above, a user's IPA account 230 is accessed through a PPP 227 or a PPP enhanced Wallet 215 that can be accessed via the Internet 900, ATM 905, telephone 910, Kiosk 915, PC 902, an interactive TV 904, and even a Personal Digital Assistant (PDA) 920. The primary method for funding the accounts (e.g., IPA account 230) linked to the PPP 227 or PPP enhanced Wallet 215 is through one of the user's other accounts (e.g., DDA, or credit or debit card accounts). In a preferred embodiment, the PPP 227 or PPP enhanced Wallet 215 can receive funds from the other accounts of the user using well known online banking functionality. Alternative funding options can be achieved through an externally sponsored credit card, by check or money order, or through the ACH network.

Steps 9A through 9C illustrate one method by which a user can install a Wallet 215. As previously stated, the preferred embodiment includes an online banking system 962. The following example uses a fictional operator of the system denoted as XYZBank 965 which acts as a PPP enhanced Wallet provider. In step 9A, the user logs onto the Internet and uses its browser 210 to navigate to the XYZBank.com site 960. In step 9B, the user selects the "Wallet" option from main menu on the XYZBank.com site. On the "Wallet" screen the user is presented with two options: "Are you an Online Banking customer?" and "Are you a Non-XYZBank customer? If user selects "Online Banking customer", the user is presented with a list of the accounts held by the user at the XYZBank that are supported by online banking. The user then identifies the account(s) to which the PPP enhanced Wallet 215 will be linked. If the user desires, a new IPA account 230 can be

established for the new PPP enhanced Wallet 215. If the user selects "Non-XYZBank customer", their PPP enhanced Wallet 215 is linked to an IPA account 230 newly set up for the customer at XYZBank 965.

Next, in step 9C the user sets up the PPP enhanced Wallet 215 for use by choosing "Install a Web Wallet" from the menu. The user is instructed that its PPP enhanced Wallet will now be installed as a button on the browser 210 toolbar. Once the software for the PPP enhanced Wallet 215 has been installed on the user's system (e.g., the user's PC or web server), the user is prompted to provide some background information that will assist the user in making web purchases and payments. An example of some of the background information requested includes the user's shipping name address. At this point, the PPP enhanced Wallet 215 installation is complete and the user can perform any of the methods described above with respect to Figure 1-8. As previously described, using thin Wallet technology, the majority of the software and data associated with the PPP enhanced Wallet 215 resides on a server maintained by the XYZBank 965.

Steps 9D through 9K illustrate two methods of funding the PPP enhanced Wallet 215. For customers of XYZBank 965, the primary method for initial and future funding of the PPP enhanced Wallet 215 is performed through a link between the PPP enhanced Wallet 215 and the Online Banking system 962 as described above. The link between the PPP enhanced Wallet 215 and the Online banking 962 can be transparent and the user can sign on solely to its PPP enhanced Wallet 215 and be seamlessly provided with the online banking 962 functionality. For initial funding of the PPP enhanced Wallet 215, the user selects "move funds to/from Wallet" from an online banking menu. The user then provides the following information: the source

of the funds - checking, credit card, savings, etc.; the dollar amount of the transfer; the funding date; and whether this is one time transfer or a repeat transfer. Upon completion of above, the account associated with the PPP enhanced Wallet 215 is funded. Subsequent funding of the PPP enhanced Wallet 215 associated accounts can be done through the PPP enhanced Wallet 215 itself or through the online banking system 962. In addition to funding via online banking, instructions can be given for funding via phone 910, ATM 905, Kiosk 915, or PDA 920 or interactive TV 922.

Steps 9E through 9J illustrate a method of funding the PPP enhanced Wallet 215 from an external credit (e.g., cash advance from a credit card) or debit card, or an external DDA account (external to XYZBank). For the Non- XYZBank customer or an XYZBank customer wishing to fund the PPP enhanced Wallet 215 externally, the user in step 9E selects "fund with a non- XYZBank account". The user then selects the financial merchant of the account (e.g., American Express™, VISA™, etc.) and keys in account number, expiration (if applicable), and the dollar amount of the funding transfer. The funding request is transmitted to a merchant acquirer 970 associated with or part of XYZBank 962. This account information is stored for future funding requests.

In step 9F, the merchant acquirer 970 (such as Chase Merchant Services™) authorizes the funding transaction and passes the request through the EFT switch 270. In step 9G, the financial merchant 980 (e.g., VISA™) receives funding request via EFT switch 270, and verifies the card number, expiration, and credit limit. If the funding is authorized by the financial merchant (step 9H) the funds are received by the PPP enhanced Wallet 215, more specifically, the IPA/VPL account 230 linked to the PPP enhanced

Wallet 215 (step 9I). The funds settlement (step 9J) between the credit card's bank and user's bank typically occurs once per day. A similar process occurs when the funding is from a user's DDA account at another financial institution 980. In the above description with respect to Figure 9, it is appreciated that the procedure for establishing and funding a PPP enhanced Wallet 215 equally apply to establishing and funding a PPP 227 as a stand alone product.

Figure 10 illustrates an alternative embodiment of the present invention in which the IPA user is able to fund payments according to the present invention using a credit card. Although the illustration of Figure 10 and following description is made with respect to the Internet shopping embodiment of Figure 2, this alternative credit card embodiment is equally applicable to the embodiments of Figures 3-8. Unless otherwise specified, all of the steps of the embodiment of Figure 10 are the same as described with respect to Figure 2.

In step 2H, when the user agrees to make the EFT credit payment, the user is given the option to fund the payment with his or her credit card. The PPP 227 either already knows the user credit card number or prompts the user for the number. The PPP 227 then contacts the credit card issuer 290 as described above with respect to Figure 9 for authorization for the credit in the amount of the payment. When the authorization is returned, the PPP 227, transmits the credit to the IPA account 230 simultaneously with the transmission of the payment authorization. The IPA account 230 then has sufficient funds to transmit the EFT credit to the merchant's VPL account 235 as described above. At the end of the day, a settlement occurs between the bank 220 and the credit card issuer 290 in the amount of the credit. This

settlement is similar to the settlement (step 2M) between bank 220 and bank 275.

Using this embodiment of the present invention, a user is able to continue to use its credit card for online purchases, but because of the unique features of the IPA account and the EFT credit push, the user only has to give its financially sensitive information (i.e., credit card number) to its trusted institution. In this embodiment, the user of able to fund larger purchases than would normally be found in the IPA account 230.

Although the present invention has been described in relation to particular embodiments thereof, many other variations and other uses will be apparent to those skilled in the art. It is preferred, therefore, that the present invention be limited not by the specific disclosure herein, but only by the gist and scope of the disclosure.

We claim:

1. A method for effectuating an electronic payment between a payor and a payee using an Electronic Funds Transfer (EFT) network, the payor having a payor account at a payor institution and the payee having a payee account at a payee institution, the method comprising the steps of:

generating a payment authorization identifying the payee institution, the payee account and an amount of the payment;

transmitting the payment authorization to the payor institution;

debiting the payor account by the amount of the payment;

transmitting from the payor institution to the payee institution through the EFT network an EFT credit message representing a credit in the amount of the payment; and

crediting the payee account in the amount of the payment in response to the receipt of the EFT credit message.

2. The method as recited in claim 1, further comprising the step of identifying payee information, the payee information including the payee institution and the payee account.

3. The method as recited in claim 2, wherein the identifying step further comprises the step of retrieving the payee information from an Internet site.

4. The method as recited in claim 3, wherein the identifying step and the steps of generating and transmitting the payment authorization is performed by a Wallet software application.

5. The method as recited in claim 3, wherein the payee information is pushed to the payor from the Internet site.

6. The method as recited in claim 3, wherein the payee information is pulled by the payor from the Internet site.

7. The method as recited in claim 6, wherein the Internet site contains a directory of payee information for a plurality of payees and wherein the step of pulling the payee information further comprises the step of selecting the payee information from the directory.

8. The method as recited in claim 2, wherein the identifying step further comprises the step of retrieving the payee information from a directory containing payee information for a plurality of payees.

9. The method as recited in claim 2, wherein the identifying step further comprises the step of retrieving the payee information from a pull down menu displayed on a device employed by the payor.

10. The method as recited in claim 2, wherein the identifying step further comprises the step of the payor keying the payee information into a device employed by the payor.

11. The method as recited in claim 2, wherein the identifying step further comprises the step of retrieving the payee information by phone.

12. The method as recited in claim 1, wherein the payee institution and the payor institution are financial institutions.

13. The method as recited in claim 1, wherein the payee institution and the payor institution are banks.

14. The method as recited in claim 1, further comprising the step of receiving a payment message, the payment message containing an identification of the payee institution, the payee account and the amount of the payment.

15. The method as recited in claim 14, wherein the payment authorization is generated in response to the receipt of the payment message.

16. The method as recited in claim 1, further comprising the step of confirming the validity of the identification of the payee institution and payee account prior to the step of transmitting the EFT credit message.

17. The method as recited in claim 16, wherein the confirmation step is accomplished through the EFT network.

18. The method as recited in claim 16, wherein the confirmation step is accomplished through the Internet.

19. The method as recited in claim 1, further comprising the step of transmitting a payment confirmation to the payee confirming transmission of the EFT credit message.

20. The method as recited in claim 19, wherein the payment confirmation is transmitted prior to the transmission of the EFT credit message.

21. The method as recited in claim 19, wherein the payment confirmation is transmitted after the transmission of the EFT credit message.

22. The method as recited in claim 19, wherein the payment confirmation is transmitted through the Internet.

23. The method as recited in claim 19, wherein the payment confirmation is transmitted by E-mail.

24. The method as recited in claim 19, further comprising the step of the payee storing the payment confirmation.

25. The method as recited in claim 1, wherein the step of transmitting the payment authorization to the payor institution further comprises the step of transmitting the payment authorization through the Internet.

26. The method as recited in claim 25, wherein the step of transmitting the payment authorization to the payor institution is accomplished using a personal computer.

27. The method as recited in claim 25, wherein the step of transmitting the payment authorization to the payor institution is accomplished using an ATM machine.

28. The method as recited in claim 25, wherein the step of transmitting the payment authorization to the payor institution is accomplished by using an Internet enabled Kiosk.

29. The method as recited in claim 25, wherein the step of transmitting the payment authorization to the payor institution is accomplished by using an Internet enabled Personal Digital Assistant.

30. The method as recited in claim 25, wherein the step of transmitting the payment authorization to the payor institution is accomplished by using an interactive television.

31. The method as recited in claim 1, wherein the step of transmitting the payment authorization to the payor institution further comprises the step of transmitting the payment request by telephone.

32. The method as recited in claim 31, wherein the telephone is a cellular telephone.

33. The method as recited in claim 1, further comprising the step of performing a settlement between the payor institution and the payee institution at least with respect to the credit contained in the EFT credit message.

34. The method as recited in claim 1, wherein the EFT credit message represents a unique credit and not a reversal of a debit.

35. The method as recited in claim 1, wherein the payee account is a receive only account.

36. The method as recited in claim 35, further comprising the step of reporting to the payee the crediting of the receive only account.

37. The method as recited in claim 35, further comprising the step of transferring the credited amount of the payment from the receive only account to a different account held by the payee.

38. The method as recited in claim 1, wherein the payment authorization identifies the payor account by a first address.

39. The method as recited in claim 38, further comprising the step of receiving credits transmitted to a second address that identifies the payor account.

40. The method as recited in claim 39, further comprising the step of prohibiting debits from the payor account using the second address, whereby

the payor can publish the second address for the receipt of credits to the payor account.

41. The method as recited in claim 39, wherein the first and second addresses are different.

42. The method as recited in claim 38, wherein the first address additionally identifies the payor institution.

43. The method as recited in claim 38, further comprising the step of linking a physical card to the payor account.

44. The method as recited in claim 43, further comprising the step of requiring a Personal Identification Number (PIN) when the physical card is used to access the payor account.

45. The method as recited in claim 1, wherein the payor has a credit card account with an issuer, the method further comprising the steps of:

transmitting a credit request to the issuer in the amount of the payment;

receiving an authorization of the credit request in the amount of the payment; and

crediting the payor account in the amount of the payment.

46. A method for effectuating electronic payments for online purchases made by a consumer from a merchant, the method comprising the steps of:

identifying a purchase amount and merchant information, the merchant information identifying a merchant's account holding institution and a merchant's account at the merchant's account holding institution;

forming a payment authorization identifying the purchase amount and the merchant information;

transmitting the payment authorization to an account holding institution at which the consumer maintains a consumer's account;

debiting the consumer's account by the purchase amount;

generating an Electronic Funds Transfer (EFT) credit instruction for crediting the merchant's account by the purchase amount;

transmitting the Electronic Funds Transfer credit instruction to the merchant's account holding institution through an Electronic Funds Transfer network; and

crediting the merchant's account by the purchase amount.

47. The method as recited in claim 46, wherein the consumer is a business.

48. The method as recited in claim 46, wherein the identifying step further comprises the step of retrieving the merchant information from an Internet site.

49. The method as recited in claim 48, wherein the Internet site is an Internet site of the merchant.

50. The method as recited in claim 49, wherein the merchant information is pushed to the consumer from the merchant's Internet site.

51. The method as recited in claim 49, wherein the merchant information is pulled by the consumer from the merchant's Internet site.

52. The method as recited in claim 48, wherein the Internet site contains a directory of payee information for a plurality of payees and wherein the step of retrieving the merchant information further comprises the step of selecting the merchant information from the directory.

53. The method as recited in claim 46, wherein the identifying step further comprises the step of retrieving the merchant information from a directory containing merchant information for a plurality of merchants.

54. The method as recited in claim 46, wherein the identifying step further comprises the step of retrieving the merchant information from a pull down menu displayed on a device employed by the consumer.

55. The method as recited in claim 46, wherein the identifying step further comprises the step of the consumer keying the merchant information into a device employed by the consumer.

56. The method as recited in claim 46, wherein the step of transmitting the payment authorization to the consumer's account holding institution further

comprises the step of transmitting the payment authorization through the Internet.

57. The method as recited in claim 56, wherein the step of transmitting the payment authorization through the Internet is accomplished with a Wallet software application.

58. The method as recited in claim 56, further comprising the step of providing security with respect to the transmission of the payment authorization through the Internet.

59. The method as recited in claim 58, wherein the step of providing security further comprises a step of authentication.

60. The method as recited in claim 59, wherein the step of providing security further comprises encrypting the payment authorization.

61. The method as recited in claim 56, wherein the step of transmitting the payment authorization to the consumer's account holding institution is accomplished using a personal computer.

62. The method as recited in claim 56, wherein the step of transmitting the payment authorization to the consumer's account holding institution is accomplished using an ATM machine.

63. The method as recited in claim 56, wherein the step of transmitting the payment authorization to the consumer's account holding institution is accomplished using an Internet enabled Kiosk.

64. The method as recited in claim 56, wherein the step of transmitting the payment authorization to the consumer's account holding institution is accomplished by using an interactive television.

65. The method as recited in claim 46, wherein the step of transmitting the payment authorization to the consumer's financial institution further comprises the step of transmitting the payment request by telephone.

66. The method as recited in claim 46, wherein customer's account holding institution and the merchant's account holding institution are banks.

67. The method as recited in claim 46, wherein the step of transmitting the payment authorization to the consumer's account holding institution further comprises the step of transmitting the payment authorization by Personal Digital Assistant.

68. The method as recited in claim 46, wherein the merchant's account is a receive only account.

69. The method as recited in claim 46, wherein the customer's account holding institution is a bank, and wherein the consumer's account is a demand deposit account.

70. The method as recited in claim 46, wherein the consumer's account is an account only used for making payments using the method of the present invention.

71. The method as recited in claim 46, wherein the consumer's account is an account only used for making payments and receiving credits using the method of the present invention.

72. The method as recited in claim 46, wherein the consumer's account is funded from a different account maintained by the consumer.

73. The method as recited in claim 72, wherein the different account is a demand deposit account.

74. The method as recited in claim 46, further comprising the step of confirming the accuracy of the identification of the merchant's account holding institution and the merchant account prior to the step of transmitting the EFT credit message.

75. The method as recited in claim 74, wherein the confirming step is accomplished using the EFT network.

76. The method as recited in claim 46, further comprising the step of transmitting a payment confirmation to the merchant confirming transmission of the EFT credit message.

77. A method for effectuating an electronic credit to a destination account at a destination institution, the method comprising the steps of:

identifying the destination account, the destination institution and an amount of the credit; and

transmitting an Electronic Funds Transfer (EFT) credit message to the destination institution through an Electronic Funds Transfer network, the EFT credit message representing the credit.

78. The method as recited in claim 77, further comprising the step of crediting the destination account in the amount of the credit in response to the receipt of the EFT credit message.

79. The method as recited in claim 77, wherein the credit originates from an origination account, the method further comprising the step of debiting the origination account in the amount of the credit.

80. The method as recited in claim 77, wherein the destination institution is a bank.

81. A system for effectuating an electronic payment between a payor and a payee using an Electronic Funds Transfer (EFT) network, the payor having a payor account at a payor institution and the payee having a payee account at a payee institution, the system comprising:

a first software component generating a payment authorization identifying the payee institution, the payee account and an amount of the

payment, the first software component further transmitting the payment authorization to the payor institution;

a second software component at the payor institution coupled to the first software component and coupled to the EFT network, the second software component receiving the payment authorization and transmitting from the payor institution to the payee institution through the EFT network an EFT credit message representing a credit in the amount of the payment; and

a third software component at the payee institution coupled to the EFT network, the third software component receiving the EFT credit message and crediting the payee account in the amount of the payment.

82. The system as recited in claim 81, wherein the first software component is a Wallet software application.

83. The system as recited in claim 81, wherein the first software component identifies payee information, the payee information including the payee institution and the payee account.

84. The system as recited in claim 83, wherein the first software component further comprises a retrieval Application Programing Interface (API) for retrieving the payee information from an Internet site.

85. The system as recited in claim 84, wherein the retrieval API retrieves the payee information when it is pushed from the Internet site.

86. The system as recited in claim 84, wherein the retrieval API pulls the payee information from the Internet site.

87. The system as recited in claim 84, wherein the Internet site contains a directory of payee information for a plurality of payees and wherein retrieval API selects the payee information from the directory.

88. The system as recited in claim 83, further comprising a directory containing payee information for a plurality of payees, wherein the first software component identifies the payee information using the directory.

89. The system as recited in claim 81 wherein the payor institution and the payee institution are banks.

90. The system as recited in claim 81, further comprising a device on which the first software component is accessed and controlled.

91. The system as recited in claim 90, further comprising a pull down menu displayed on the device, wherein the pull down menu contains payee information for a plurality of payees.

92. The system as recited in claim 90, further comprising a keyboard coupled to the device, wherein payee information is keyed into the device using the keyboard.

93. The system as recited in claim 90, wherein the device is a personal computer.

94. The system as recited in claim 90, wherein the device is an Internet enabled ATM machine.

95. The system as recited in claim 90, wherein the device is an Internet enabled Kiosk.

96. The system as recited in claim 90, wherein the device is an Internet enabled Personal Digital Assistant.

97. The system as recited in claim 90, wherein the device is an interactive television.

98. The system as recited in claim 90, wherein the device is a telephone.

99. The system as recited in claim 98, wherein the telephone is a cellular telephone.

100. The system as recited in claim 81, further comprising a fourth software component coupled to the first software component, the fourth software component transmitting a payment message to the first software component, the payment message containing an identification of the payee institution, the payee account and the amount of the payment.

101. The system as recited in claim 100, wherein the fourth software component is controlled by the payee.

102. The system as recited in claim 81, wherein the first software component confirms the validity of the identification of the payee institution and payee account.

103. The system as recited in claim 81, wherein the second software component confirms the validity of the identification of the payee bank and payee account.

104. The system as recited in claim 81, wherein the first software component transmits a payment confirmation to the payee confirming transmission of the EFT credit message.

105. The system as recited in claim 104, wherein the payment confirmation is transmitted by E-mail.

106. The system as recited in claim 81, wherein second software component transmits a payment confirmation to the payee confirming transmission of the EFT credit message.

107. The system as recited in claim 81, wherein the first software component is coupled to the second software component through the Internet.

108. The system as recited in claim 81, wherein the EFT credit message represents a unique credit and not a reversal of a debit.

109. The system as recited in claim 81, wherein the payee account is a receive only account.

110. The system as recited in claim 81, further comprising a reporting software component coupled to the payee account, the reporting software component reporting to the payee the crediting of the payee account.

111. The system as recited in claim 81, wherein the payor account has a first address, the first address being used to access the payor account for making payments from the payor account.

112. The system as recited in claim 111, wherein the payor account has a second address, the second address being used to receive credits transmitted to the payor account.

113. The system as recited in claim 112, debits from the payor account are prohibited using the second address, whereby the payor can publish the second address for the receipt of credits to the payor account.

114. The system as recited in claim 112, wherein the first and second addresses are different.

115. The system as recited in claim 111, wherein the first address additionally identifies the payor institution.

116. The system as recited in claim 81, further comprising a physical card logically linked to the payor account.

117. The system as recited in claim 116, wherein the physical card is linked to the payor account through second software component, the second software component requiring a Personal Identification Number (PIN) when the physical card is used to access the payor account.

118. A system for effectuating an electronic payment between a payor and a payee using an Electronic Funds Transfer (EFT) network, the payor having a payor account at a payor institution and the payee having a payee account at a payee institution, the system comprising:

a first processor generating a payment authorization identifying the payee institution, the payee account and an amount of the payment, the first processor further transmitting the payment authorization to the payor institution;

a second processor at the payor institution coupled to the first processor and coupled to the EFT network, the second processor receiving the payment authorization and transmitting from the payor institution to the payee institution through the EFT network an EFT credit message representing a credit in the amount of the payment; and

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a third processor at the payee institution coupled to the EFT network, the third processor receiving the EFT credit message and crediting the payee account in the amount of the payment.

119. The system as recited in claim 118, wherein the payee institution and the payor institution are banks.

120. A system for effectuating electronic payments for online purchases made by a consumer from a merchant, the system comprising:

a consumer device identifying a purchase amount and merchant information, the merchant information identifying a merchant's financial institution and a merchant's account at the merchant's financial institution, the consumer device further transmitting a payment authorization to a financial institution at which the consumer maintains a consumer's account, the payment authorization identifying the purchase amount and the merchant information;

a first processor located at the consumer's financial institution, the first processor receiving the payment authorization from the consumer device and generating an Electronic Funds Transfer (EFT) credit instruction for crediting the merchant's account by the purchase amount;

an Electronic Funds Transfer network coupled to the first processor, wherein the first processor transmits the Electronic Funds Transfer credit instruction to the merchant's financial institution through the Electronic Funds Transfer network; and

a second processor located at the merchant's financial institution, the second processor receiving the Electronic Funds Transfer credit instruction and crediting the merchant's account by the purchase amount.

121. The system as recited in claim 120, further comprising a first software component and a second software component, each of the first and second software components being controlled by the consumer device, wherein the first software identifies the purchase amount and the merchant information and wherein the second software component transmits the payment authorization to the consumer's financial institution.

122. The system as recited in claim 121, further comprising a server, wherein the first software component resides on the consumer device and wherein the second software component resides on a server.

123. The system as recited in claim 122, wherein the server is operated by or on behalf of the consumer's financial institution.

124. The system as recited in claim 121, wherein the first and second software components comprise an electronic Wallet.

125. The system as recited in claim 120, further comprising a server hosting an Internet site of the merchant, wherein the consumer device is coupled to the merchant's Internet site and wherein the consumer device identifies the purchase amount and the merchant information from merchant's Internet site.

126. The system as recited in claim 120, further comprising a security module coupled to the consumer device, the security module providing security with respect to the transmission of the payment authorization.

127. The system as recited in claim 126, wherein the security module performs authentication procedures.

128. The system as recited in claim 126, wherein the security module encrypts the payment authorization.

129. The system as recited in claim 120, wherein the consumer device is a personal computer.

130. The system as recited in claim 120, wherein the consumer device is an Internet enabled ATM machine.

131. The system as recited in claim 120, wherein the consumer device is an Internet enabled Kiosk.

132. The system as recited in claim 120, wherein the consumer device is an interactive television.

133. The system as recited in claim 120, wherein the consumer device is a telephone.

134. The system as recited in claim 133, wherein the telephone is a cellular telephone.

135. The system as recited in claim 120, wherein the consumer device is a Personal Digital Assistant.

136. A system for effectuating an electronic credit from an origination account at an origination institution to a destination account at a destination institution, the system comprising:

a first processor at the origination institution, the first processor generating an Electronic Funds Transfer credit message identifying the destination account, the destination institution and an amount of the credit;

an Electronic Funds Transfer network coupled to the first processor, wherein the first processor transmits the Electronic Funds Transfer credit message to the destination institution through the Electronic Funds Transfer network; and

a second processor at the destination institution, the second processor being coupled to the Electronic Funds Transfer network and receiving the Electronic Funds Transfer credit message from the first processor.

137. The system as recited in claim 136, wherein the second processor credits the destination account in the amount of the credit in response to the receipt of the Electronic Funds Transfer credit message.

138. The system as recited in claim 136, wherein the first processor debits the origination account in the amount of the credit.

139. The system as recited in claim 136, wherein the origination and destination institutions are banks.

140. A method for a user to electronically pay a bill from a biller, the user having a user bank account at a user's bank, the method comprising the steps of:

generating a bill payment authorization, the payment authorization identifying a bank of the biller, a bank account of the biller at the biller's bank and an amount of the bill payment;

transmitting the bill payment authorization request to the user's bank;

debiting the user bank account by the amount of the bill payment;

transmitting through an Electronic Funds Transfer network a Electronic Funds Transfer credit message representing a credit in the amount of the bill payment from the user's bank to the biller' bank; and

crediting the biller's bank account in the amount of the bill payment in response to the receipt of the Electronic Funds Transfer credit message.

141. The method as recited in claim 140, wherein the user is a consumer.

142. The method as recited in claim 140, wherein the user is a business.

143. The method as recited in claim 140, further comprising the steps of:

the user connecting to the Internet;

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the user connecting to an Internet website of the biller; and

the biller's website transmitting to the user a bill payment message, the bill payment message identifying the biller's bank, the biller's bank account and an amount of the bill payment, wherein the bill payment authorization is generated in response to the bill payment message.

144. The method as recited in claim 140, further comprising the step of notifying the user of a bill to be paid.

145. The method as recited in claim 144, wherein the step of notification further comprises the step of notifying the user electronically through an electronic notification.

146. The method as recited in claim 145, wherein the electronic notification is an E-mail.

147. The method as recited in claim 144, further comprising the step of incorporating a hotlink in the E-mail to the biller's website, wherein when the user selects the hotlink, the user is automatically connected to the biller's website.

148. The method as recited in claim 140, further comprising the step of generating a payment record in response to the crediting of the biller's account.

149. The method as recited in claim 148, wherein the biller maintains an account receivable system, the account receivable system containing information reflecting a billing account associated with the user , the method further comprising the step of reconciling the payment record against the user's billing account.

150. The method as recited in claim 140, further comprising the steps of:

the user connecting to the Internet;

the user connecting to an Internet website of a Customer Service Provider (CSP), the CSP performing billing services for the biller; and

the CSP's website transmitting to the user a bill payment message, the bill payment message identifying the biller, a bank of the CSP, a bank account of the CSP and an amount of the bill payment, wherein the bill payment authorization is generated in response to the bill payment message, and wherein the CSP's bank account is credited in the amount of the bill payment in response to the receipt of the Electronic Funds Transfer credit message.

151. The method as recited in claim 150, further comprising the step of transferring the amount of the bill payment from the CSP's bank account to the biller's bank account.

152. The method as recited in claim 150, further comprising repeating the process for a plurality of billers for which the CSP performs billing services.

153. The method as recited in claim 150, wherein the biller has a plurality of customers that are users, the method further comprising the step of the biller transferring billing information to the CSP, wherein the billing information includes identification of the users and the bill payment amount with respect to each user.

154. The method as recited in claim 140, further comprising the steps of:

the user connecting to the Internet;

the user connecting to an Internet website of a Customer Service Provider (CSP), the CSP performing billing services for the biller; and

the CSP's website transmitting to the user a bill payment message, the bill payment message identifying the biller, a bank of the biller, a bank account of the biller and an amount of the bill payment, wherein the bill payment authorization is generated in response to the bill payment message, and wherein the biller's bank account is credited in the amount of the bill payment in response to the receipt of the Electronic Funds Transfer credit message.

ABSTRACT OF THE INVENTION

A system and method for effectuating Electronic Funds Transfer credit messages. The main structural components of the system include a Payment Portal Processor (PPP), an Internet Pay Anyone (IPA) Account, a Virtual Private Lockbox (VPL) and an associated Account Reporter, the existing EFT networks, and a cash card for accessing a VPL or IP account. The PPP is a software application that provides a secure portal for accessing (linking to) either the user's Demand Deposit Account (DDA) or an IPA account and can be combined with the functionality of a traditional digital Wallet. Consumers use a PPP enhanced Wallet to fund their account, shop on the web, pay bills, pay anyone, store electronic receipts and transaction history, and check their recent PPP enhanced Wallet activity. The IPA account is a special purpose account with limited functionality for making electronic payments in the form of EFT credit messages. The VPL is a limited function receive only account for receiving electronic payments through the EFT. The Account Reporter is a portal to view transaction history and balance of IPA and VPL accounts, provide online, real-time transaction reports, and to reconciles accounts receivable/purchase records against incoming EFT payment records. A physical card can be associated with either an IPA or VPL account in order to provide PIN debit capability.

UNITED STATES OF AMERICA COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION	OFGS FILE NO. P/2167-159

As a below named inventor, I hereby declare that. my residence, post office address and citizenship are as stated below next to my name; that I verily believe that I am the original, first and sole inventor (if only one name is listed below) or a joint inventor (if plural inventors are named) of the subject matter which is claimed and for which a patent is sought on the invention entitled

METHOD AND SYSTEM FOR PROCESSING INTERNET PAYMENTS USING THE ELECTRONIC FUNDS TRANSFER NETWORK

the specification of which is attached hereto, unless the following box is checked:

☐ was filed on _____ as United States patent Application Number or PCT International patent application number _____ and was amended on _____ (if any).

I hereby state that I have reviewed and understand the contents of the above identified specification, including the claims, as amended by any amendment referred to above.

I acknowledge the duty to disclose all information known to be material to patentability in accordance with Title 37, Code of Federal Regulations, §1.56.

I hereby claim priority benefits under Title 35, United States Code §119 of any foreign application(s) for patent or inventor's certificate or United States provisional application(s) listed below and have also identified below any foreign application for patent or inventor's certificate having a filing date before that of the application on which priority is claimed:

Prior Foreign or Provisional Application(s)

COUNTRY	APPLICATION NUMBER	DATE OF FILING *(day, month, year)*	PRIORITY CLAIMED UNDER 35 U.S.C. 119
United States	60/132,305	3 May 1999	YES X NO ___
United States	60/150,725	25 August 1999	YES X NO ___
United States	60/161,300	26 October 1999	YES X NO ___
United States	60/163,828	5 November 1999	YES X NO ___
United States	60/173,044	23 December 1999	YES X NO ___

I hereby claim the benefit under Title 35, United States Code, §120 of any United States application(s) listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States application in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56 which became available between the filing date of the prior application and the national or PCT international filing date of this application.

UNITED STATES APPLICATION NUMBER	DATE OF FILING *(day, month, year)*	STATUS *(patented, pending, abandoned)*

I hereby appoint customer no. 2352 OSTROLENK, FABER, GERB & SOFFEN, LLP, and the members of the firm, Samuel H. Weiner - Reg. No. 18,510; Jerome M. Berliner - Reg. No. 18,653; Robert C. Faber - Reg. No. 24,322; Edward A. Meilman - Reg. No. 24,735; Stanley H. Lieberstein - Reg. No. 22,400; Steven I. Weisburd - Reg No. 27,409; Max Moskowitz - Reg. No 30,576; Stephen A. Soffen - Reg. No. 31,063; James A. Finder - Reg. No. 30,173; William O Gray, III - Reg. No. 30,944; Louis C. Dujmich - Reg. No. 30,625 and Douglas A. Miro - Reg. No. 31,643, as attorneys with full power of substitution and revocation to prosecute this application, to transact all business in the Patent & Trademark Office connected therewith and to receive all correspondence.

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I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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☒ CONTINUED ON PAGE 2

UNITED STATES OF AMERICA COMBINED DECLARATION AND POWER OF ATTORNEY FOR PATENT APPLICATION			OFGS FILE NO. P/2167-159
COUNTRY	APPLICATION NUMBER	DATE OF FILING *(day, month, year)*	PRIORITY CLAIMED UNDER 35 U.S.C. 119
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___
			YES ___ NO ___

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

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POST OFFICE ADDRESS		
FULL NAME OF SEVENTH JOINT INVENTOR, IF ANY	INVENTOR'S SIGNATURE	DATE
RESIDENCE *(City and either State or Foreign Country)*		COUNTRY OF CITIZENSHIP
POST OFFICE ADDRESS		

09S020 "20S26Sh50

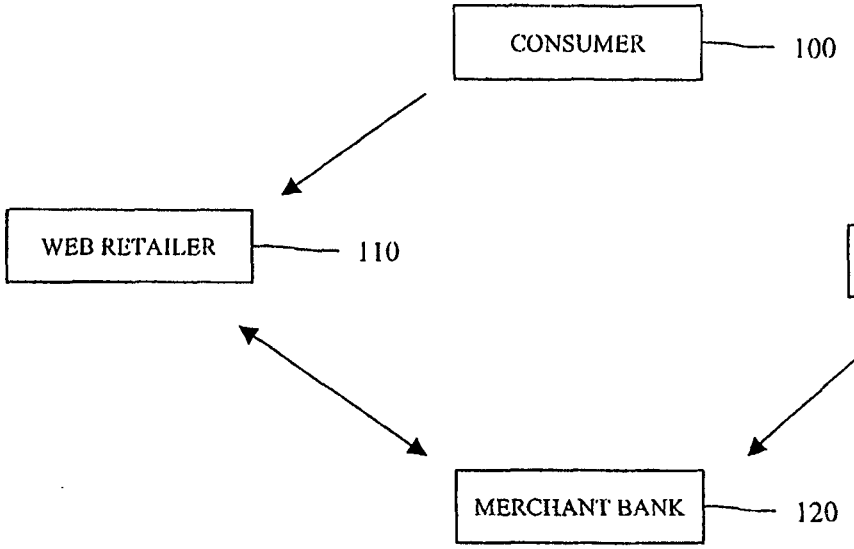


FIGURE 1

ISSUER BANK — 130

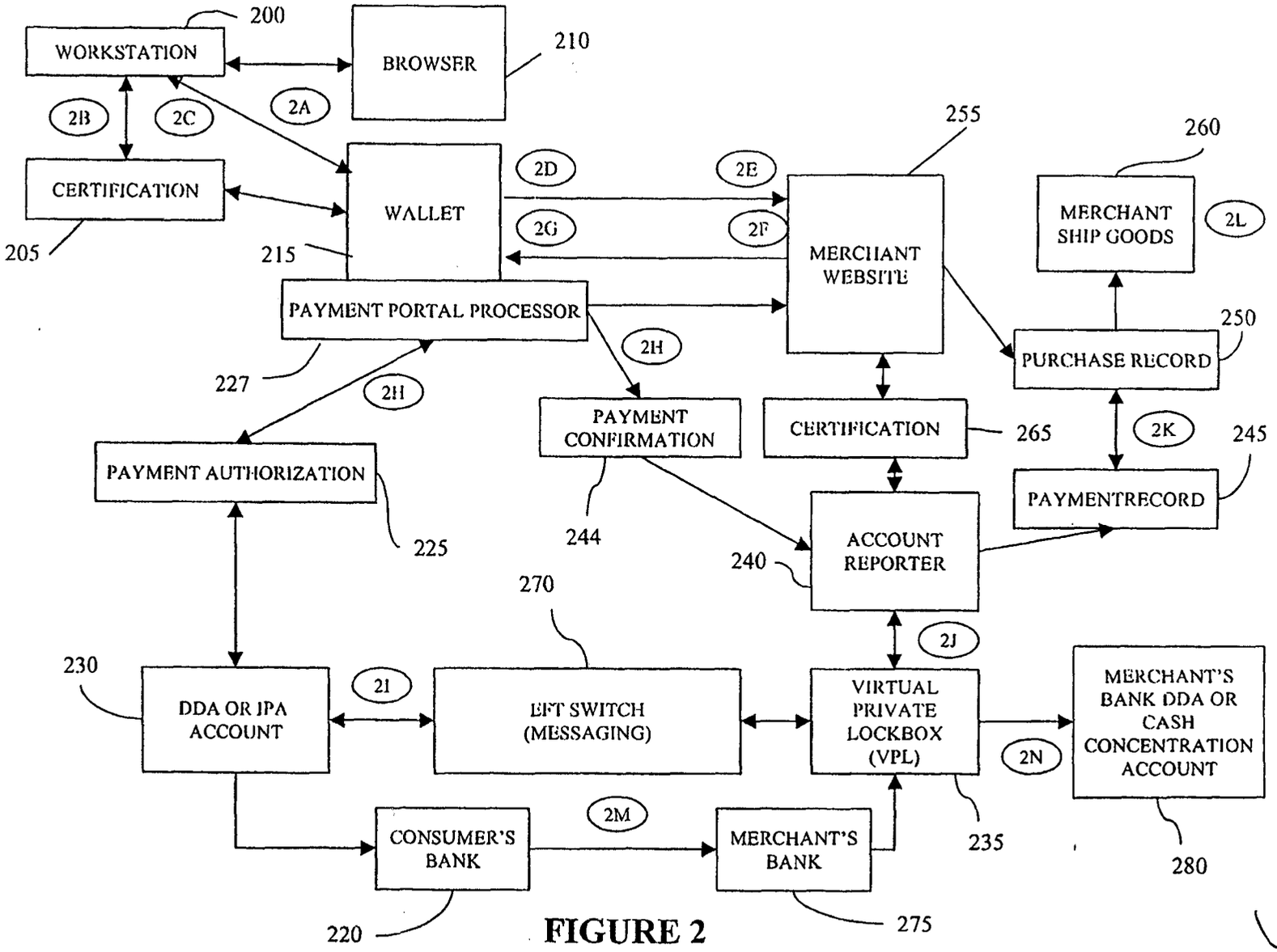

WORKSTATION
200
BROWSER
210
2A
2B
2C
CERTIFICATION
205
WALLET
215
2D
2E
2F
2G
255
MERCHANT WEBSITE
260
MERCHANT SHIP GOODS
2L
PAYMENT PORTAL PROCESSOR
227
2H
2H
250
PURCHASE RECORD
PAYMENT CONFIRMATION
CERTIFICATION
265
2K
245
PAYMENTRECORD
PAYMENT AUTHORIZATION
225
244
ACCOUNT REPORTER
240
270
2J
230
DDA OR IPA ACCOUNT
2I
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
2N
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNT
2M
CONSUMER'S BANK
MERCHANT'S BANK
235
280
220
275

FIGURE 2

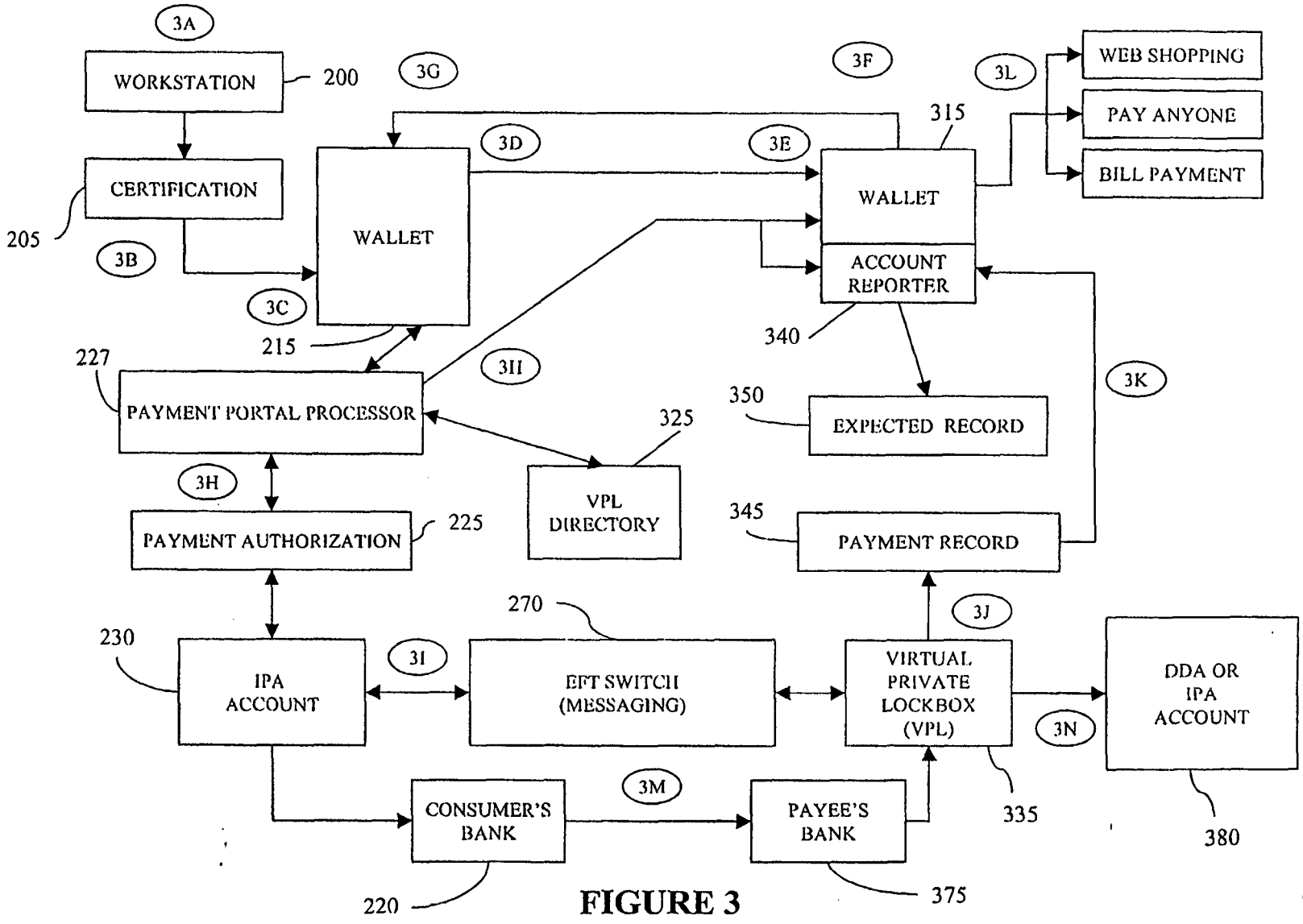

3A
WORKSTATION
200
3G
3F
3L
WEB SHOPPING
PAY ANYONE
BILL PAYMENT
315
3D
3E
CERTIFICATION
205
WALLET
WALLET
3B
ACCOUNT REPORTER
3C
215
340
227
3II
3K
PAYMENT PORTAL PROCESSOR
350
EXPECTED RECORD
325
3H
VPL DIRECTORY
345
PAYMENT AUTHORIZATION
225
PAYMENT RECORD
270
3J
230
IPA ACCOUNT
3I
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
DDA OR IPA ACCOUNT
3N
3M
CONSUMER'S BANK
PAYEE'S BANK
335
380
220
375

FIGURE 3

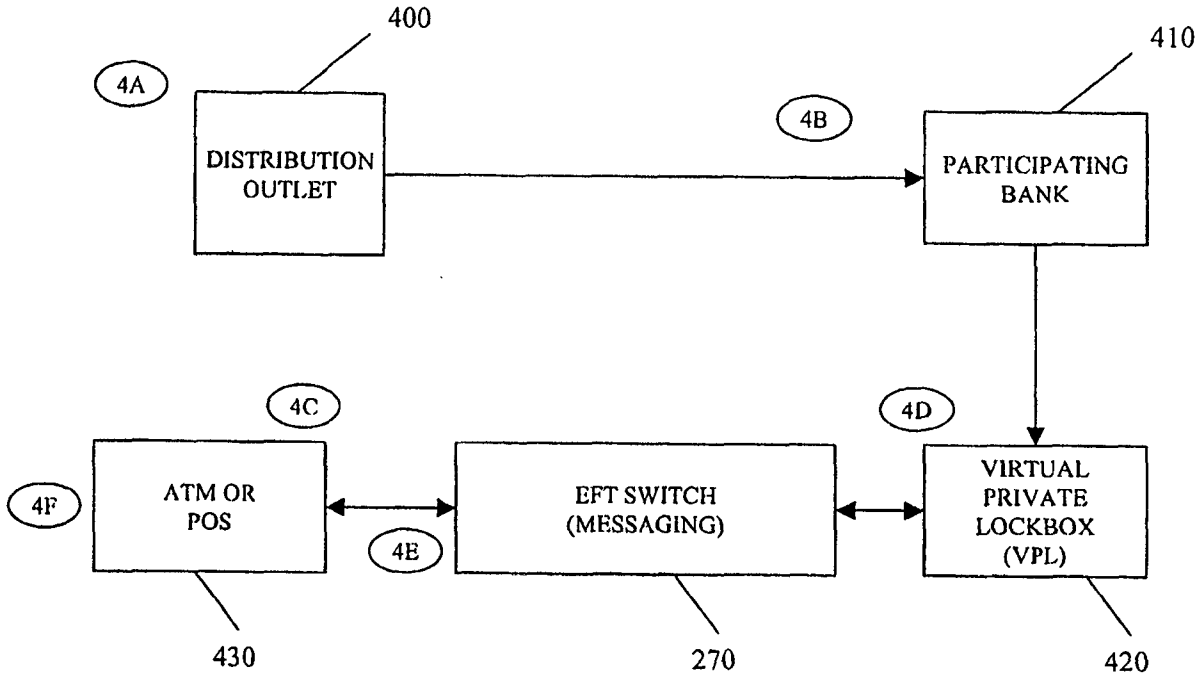

400
410
4A
DISTRIBUTION OUTLET
4B
PARTICIPATING BANK
4C
4D
4F
ATM OR POS
4E
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
430
270
420

FIGURE 4

09S020 "20S26hsa

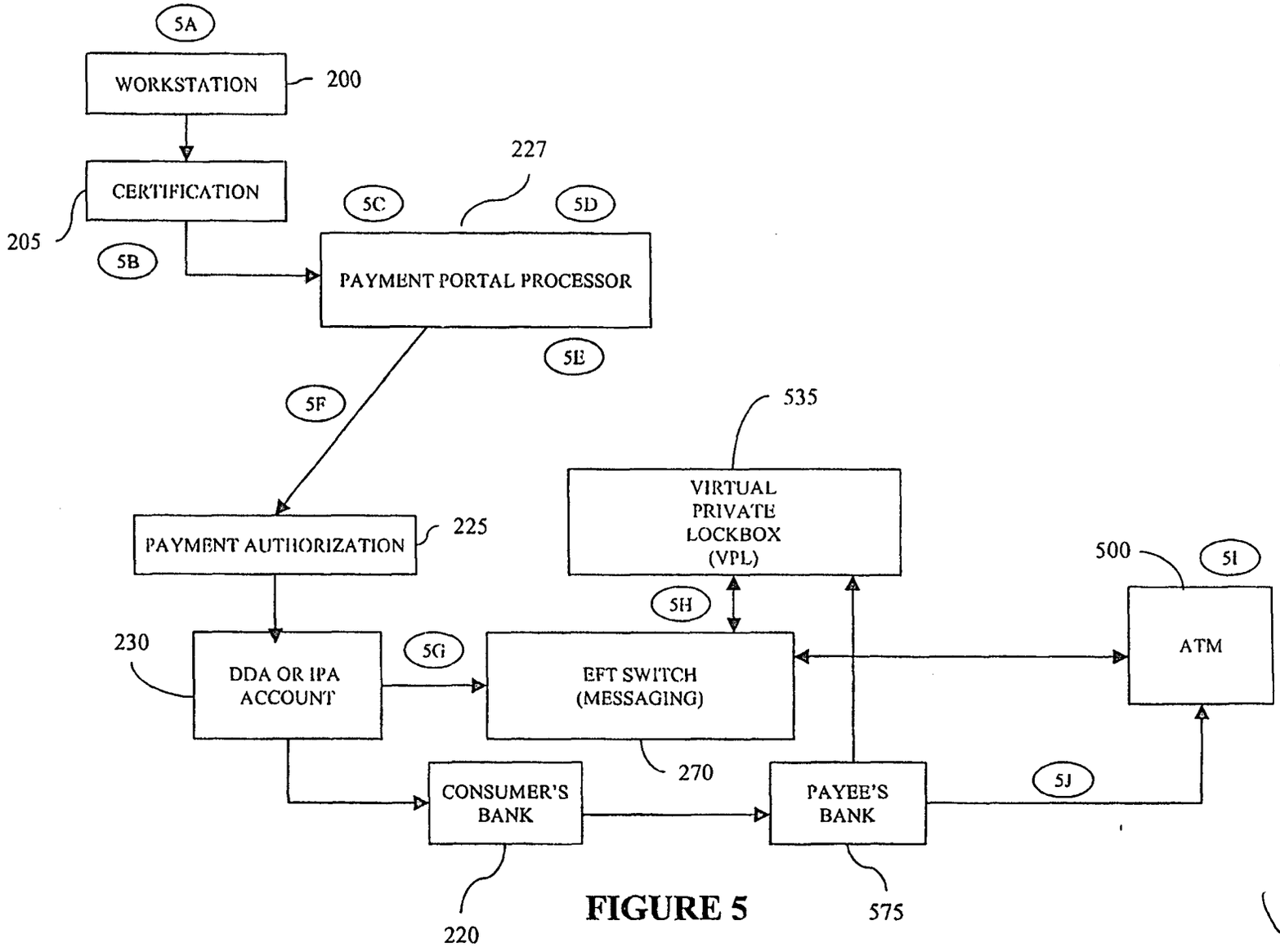


FIGURE 5

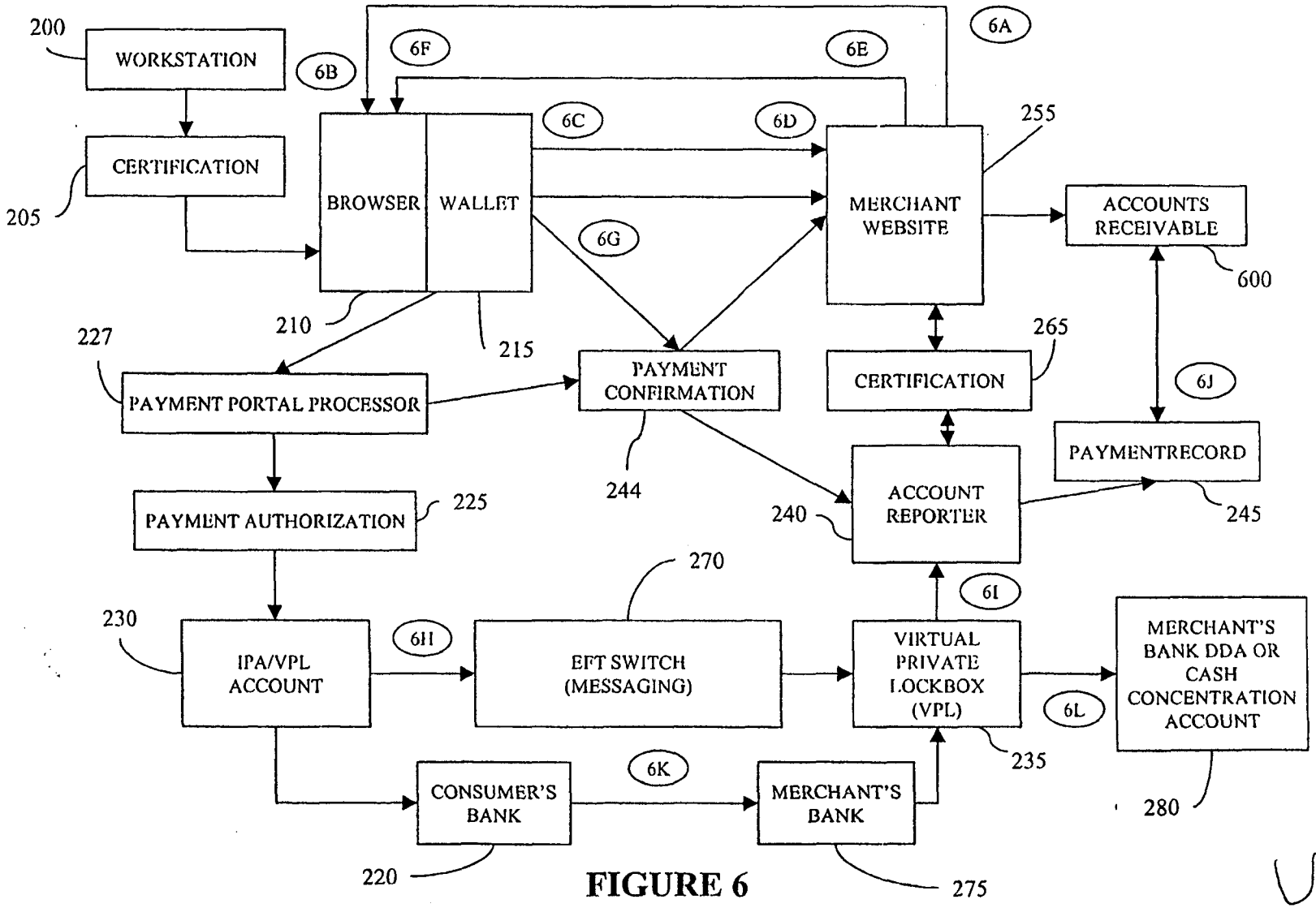

200
WORKSTATION
6B
6F
6E
6A
CERTIFICATION
205
BROWSER
WALLET
6C
6D
255
MERCHANT WEBSITE
ACCOUNTS RECEIVABLE
600
6G
210
215
227
265
PAYMENT PORTAL PROCESSOR
PAYMENT CONFIRMATION
CERTIFICATION
6J
PAYMENTRECORD
244
ACCOUNT REPORTER
240
245
PAYMENT AUTHORIZATION
225
270
6I
230
IPA/VPL ACCOUNT
6H
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNT
6L
235
6K
CONSUMER'S BANK
MERCHANT'S BANK
220
275
280

FIGURE 6

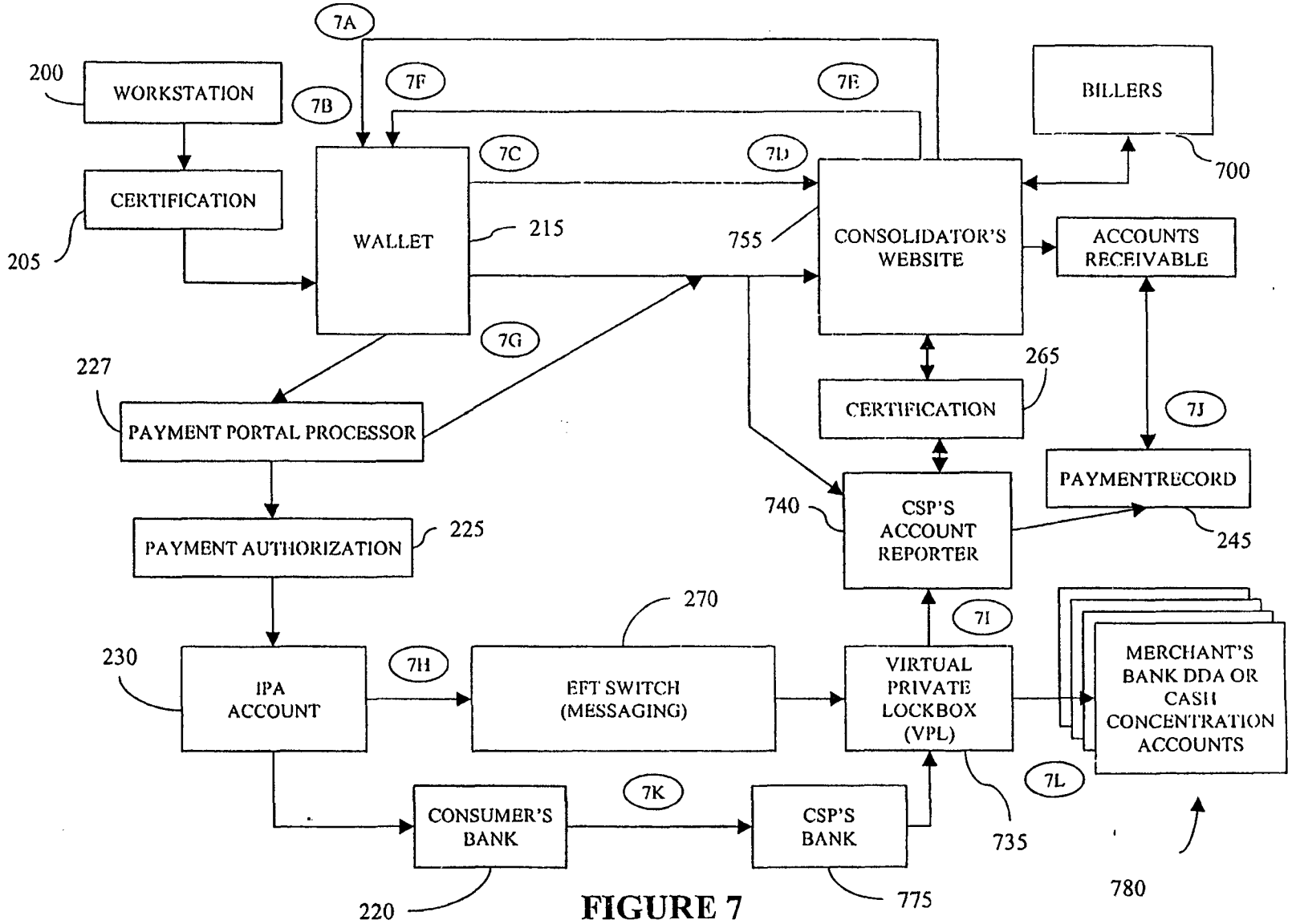

7A
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WORKSTATION
7B
7F
7E
BILLERS
700
CERTIFICATION
205
WALLET
7C
7D
215
755
CONSOLIDATOR'S WEBSITE
ACCOUNTS RECEIVABLE
7G
227
265
PAYMENT PORTAL PROCESSOR
CERTIFICATION
7J
PAYMENTRECORD
740
CSP'S ACCOUNT REPORTER
245
PAYMENT AUTHORIZATION
225
270
7I
230
IPA ACCOUNT
7H
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNTS
7K
7L
CONSUMER'S BANK
CSP'S BANK
735
780
220
775

FIGURE 7

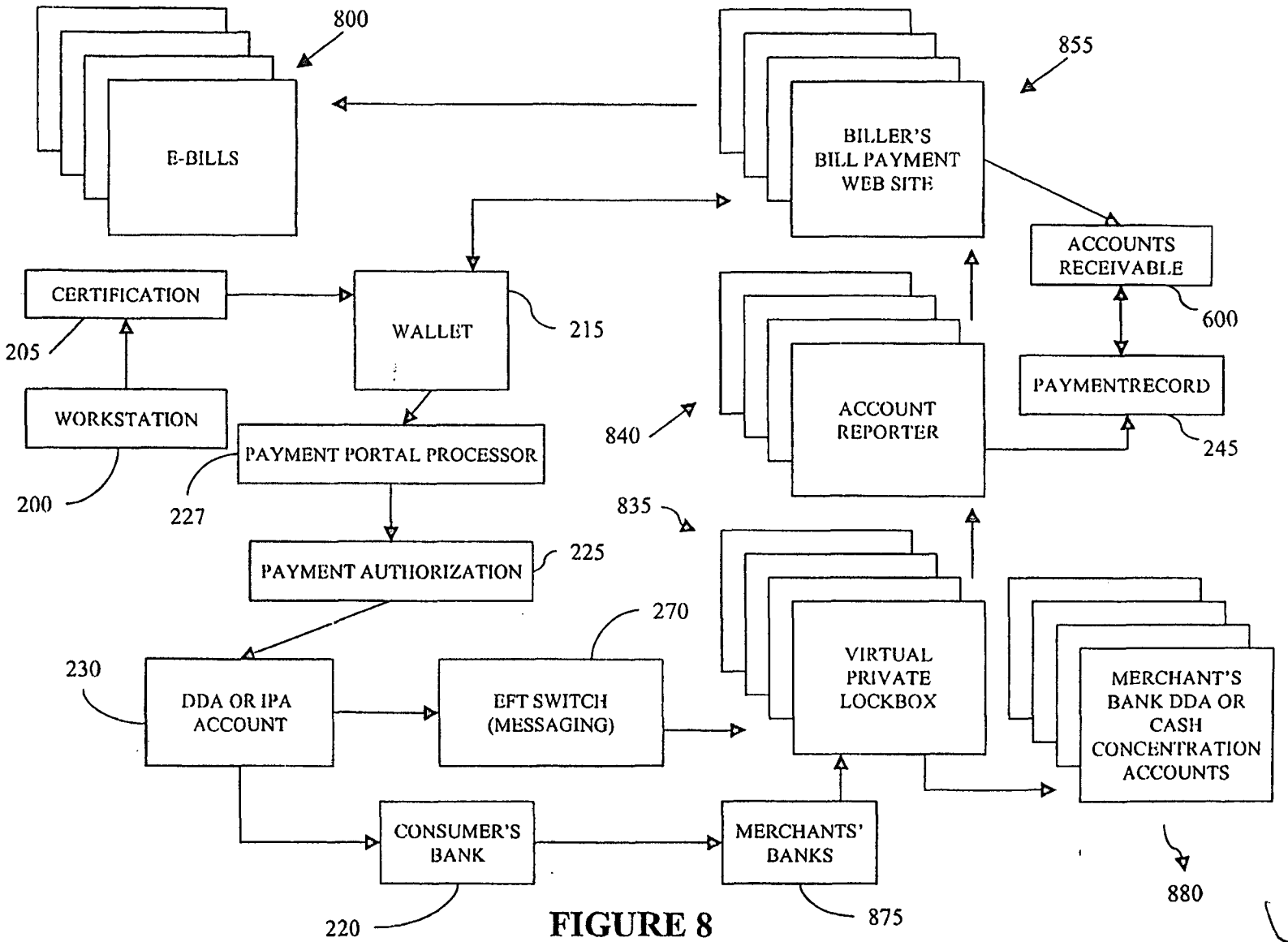

800
E-BILLS
855
BILLER'S BILL PAYMENT WEB SITE
ACCOUNTS RECEIVABLE
600
CERTIFICATION
205
WALLET
215
WORKSTATION
200
PAYMENT PORTAL PROCESSOR
227
840
ACCOUNT REPORTER
PAYMENTRECORD
245
835
PAYMENT AUTHORIZATION
225
270
230
DDA OR IPA ACCOUNT
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNTS
CONSUMER'S BANK
MERCHANTS' BANKS
220
875
880

FIGURE 8

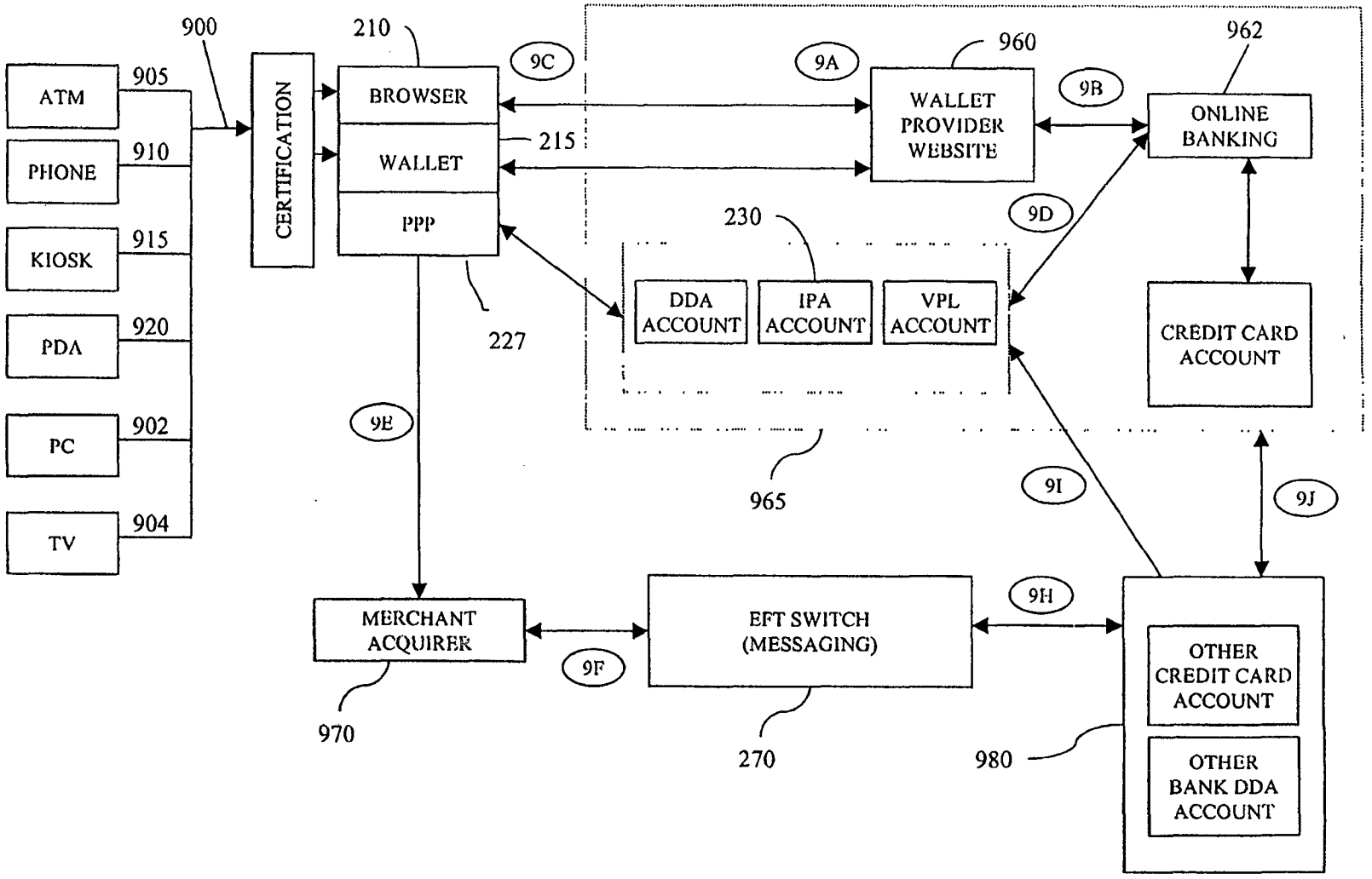

900
210
960
962
ATM
905
PHONE
910
KIOSK
915
PDA
920
PC
902
TV
904
CERTIFICATION
BROWSER
WALLET
PPP
215
227
9C
9A
9B
WALLET PROVIDER WEBSITE
ONLINE BANKING
9D
230
DDA ACCOUNT
IPA ACCOUNT
VPL ACCOUNT
CREDIT CARD ACCOUNT
965
9E
9I
9J
MERCHANT ACQUIRER
9F
EFT SWITCH (MESSAGING)
9H
OTHER CREDIT CARD ACCOUNT
OTHER BANK DDA ACCOUNT
970
270
980

FIGURE 9

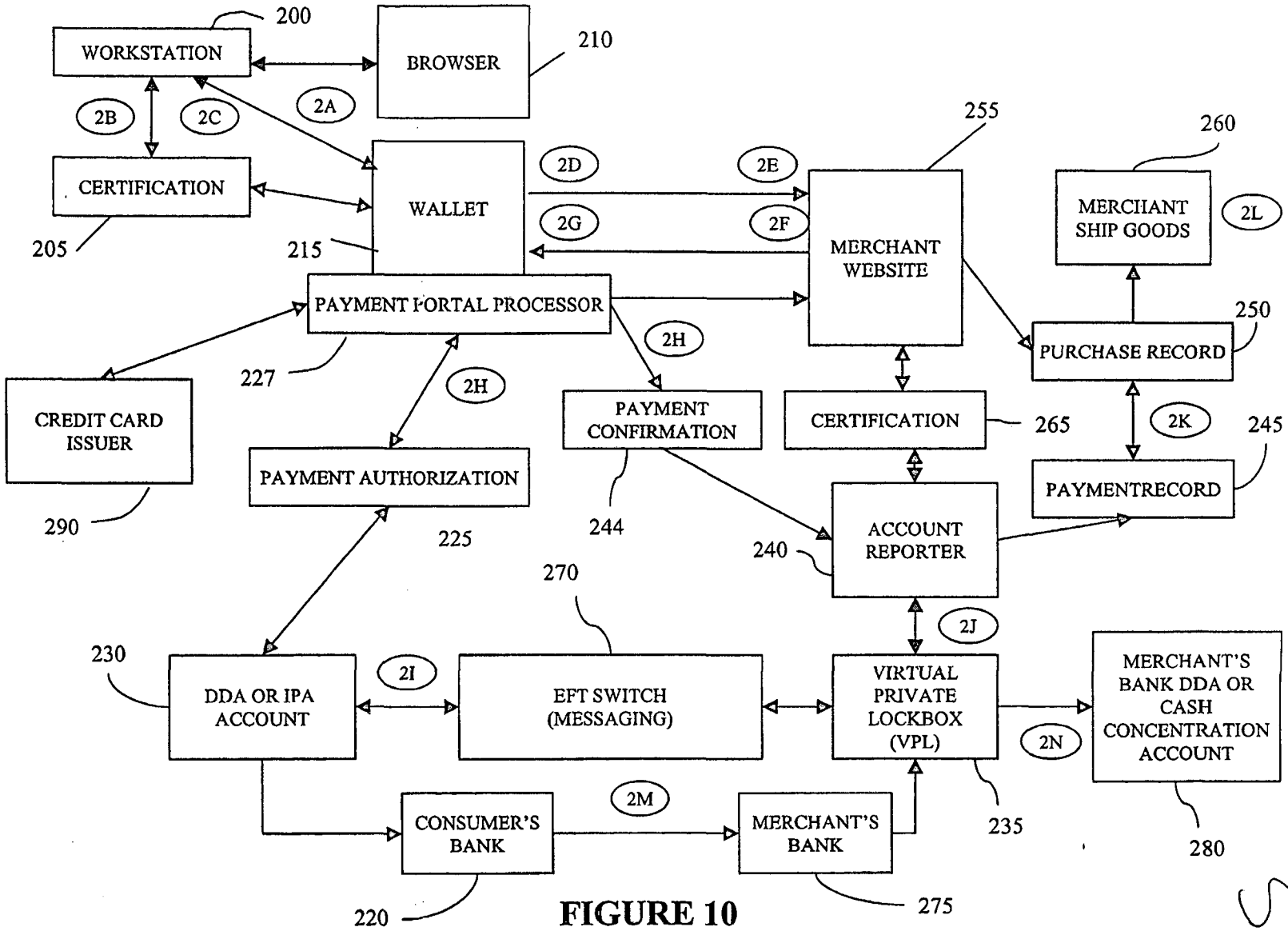

200
WORKSTATION
BROWSER
210
2A
2B
2C
CERTIFICATION
205
WALLET
215
2D
2E
2F
2G
255
MERCHANT WEBSITE
260
MERCHANT SHIP GOODS
2L
PAYMENT PORTAL PROCESSOR
227
2H
2H
250
PURCHASE RECORD
CREDIT CARD ISSUER
290
PAYMENT AUTHORIZATION
225
PAYMENT CONFIRMATION
244
CERTIFICATION
265
2K
245
PAYMENTRECORD
ACCOUNT REPORTER
240
270
2J
230
DDA OR IPA ACCOUNT
2I
EFT SWITCH (MESSAGING)
VIRTUAL PRIVATE LOCKBOX (VPL)
2N
MERCHANT'S BANK DDA OR CASH CONCENTRATION ACCOUNT
2M
CONSUMER'S BANK
MERCHANT'S BANK
235
280
220
275

FIGURE 10

65

A COVERBIND™ COVER 1-800-366-6060
1/2" Classic PTO 1683-DD for 91 to 120 sheets

085

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Oficina de Patentes y Marcas de los Estados Unidos

Mayo 11, 2000.

LA PRESENTE ES PARA CERTIFICAR QUE LA ANEXA A ESTA ES UNA COPIA FIEL DE LOS REGISTROS DE LA OFICINA DE PATENTES Y MARCAS DE LOS ESTADOS UNIDOS DE LOS DOCUMENTOS DE LA SOLICITUD DE PATENTE IDENTIFICADA MÁS ADELANTE QUE SATISFACEN LOS REQUISITOS PARA QUE SE OTORGUE UNA FECHA DE PRESENTACIÓN BAJO 35 USC 111.

SOLICITUD NÚMERO: 09/497,307.

FECHA DE PRESENTACIÓN: Febrero 03, 2000.

Por la autoridad del

COMISIONADO DE PATENTES Y MARCAS

P. SWAIN

Funcionario Certificador

SELLO EN RELIEVE

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(212) 382-0070

Correo Expreso #EL 010 201 418US

Asst. Comisionado de Patentes
Washington, DC 20231

OFGS Archivo No.:	P/2167-159
Inventor:	Denis O'Leary y colaboradores.
Título:	MÉTODO Y SISTEMA PARA PROCESAR PAGOS POR INTERNET UTILIZANDO LA RED DE TRANSFERECIA ELECTRÓNICA DE FONDOS
Cesionario:	The Chase Manhattan Bank

Incluidos con la presente sírvase encontrar los siguientes documentos relativos a la solicitud antes identificada para patente de los Estados Unidos:

...84... Páginas de especificación que incluyen resumen y reivindicaciones
..154.. Reivindicaciones numeradas calculadas como 154 para finalidades de honorarios
...10... Láminas de dibujos que contiene las figuras 1 a 4 .(Formal/Informal)
...X... Declaración y poder de abogado (sin firmar)
...X... Se reivindica prioridad bajo el 35 U.S.C. §119:
Solicitud provisional de los U.S Nos: 60/132.305, presentada el 3 de Mayo de 1999; 60/150.725, presentada el 25 de Agosto de 1999; 60/161.300, presentada el 26 de Octubre de 1999; 60/163.828, presentada el 5 de Noviembre de 1999; y 60/73.044, presentada el 23 de Diciembre de 1999.
...X... Tarjeta postal de retorno
OFGS cheque No: 91345, el cual incluye los honorarios de $3,492.oo calculados como sigue:

Derechos básicos de presentación:.....$690.oo
Derechos adicionales de presentación:
Número total de reivindicaciones en exceso a 20, 134 por $18:.....$2.412,oo
Número de reivindicaciones independientes por encima de tres, 5 por $78: $390,oo
Una o más reivindicaciones múltiples dependientes: Total $260.....
Derechos totales de presentación o .....
Derechos de registro de cesión: $40.....
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Dorothy Jenkins

Nombre de la persona que envía el Correo

FIRMA (ILEGIBLE)
Febrero 3, 2000

Fecha de Firmado

Presentado respetuosamente,

(FIRMA ILEGIBLE)

Michael J. Scherr
Registro No.: 34,425
OSTROLENK, FABR, GERB & SOFFEN, LLP
1180 Avenue of the Americas
New York, New York 10036-8403
Teléfono: (212) 382-0070

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Reivindicamos:

1. Un método para efectuar un pago electrónico entre un pagador y un beneficiario, utilizando una Red Electrónica de Transferencia de Fondos (EFT) teniendo el pagador una cuenta de pagador en una institución de pagador y teniendo el beneficiario una cuenta de beneficiario en una institución de beneficiario, comprendiendo el método las etapas de:

   generar una autorización de pago que identifique la institución del beneficiario, la cuenta del beneficiario y un monto del pago;

   transmitir la autorización de pago a la institución pagadora;

   debitar la cuenta del pagador por el monto del pago;

   transmitir desde la institución del pagador a la institución del beneficiario a través de la red EFT un mensaje de crédito de EFT que representa un crédito en el monto del pago; y

   acreditar la cuenta del beneficiario en la cantidad del pago en respuesta al recibo del mensaje de crédito de EFT.

2. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de identificar información del beneficiario, incluyendo la información del beneficiario, la institución del beneficiario y la cuenta del beneficiario.

3. El método según se definió en la reivindicación 2, en donde la etapa de identificar comprende adicionalmente la etapa de recuperar la información del beneficiario desde un emplazamiento de red de Internet.

4. El método según se definió en la reivindicación 3, en donde la etapa de identificar y las etapas de generar y transmitir la autorización de pago son realizadas mediante una aplicación de Software de Billetera.

5. El método según se definió en la reivindicación 3, en donde la información del beneficiario es impulsada hacia el pagador desde el emplazamiento de Internet.

6. El método según se definió en la reivindicación 3, en donde la información del beneficiario es extraída por el pagador desde el emplazamiento de la red de Internet.

7. El método según se definió en la reivindicación 6, en donde el emplazamiento de Internet contiene un directorio de información del beneficiario para un número de beneficiarios y en donde la etapa de extraer la información de beneficiario comprende adicionalmente la etapa de seleccionar la información del beneficiario desde el directorio.

8. El método según se definió en la reivindicación 2, en donde la etapa de identificar comprende adicionalmente la etapa de recuperar la información del beneficiario desde un directorio que contiene información del beneficiario para un número de beneficiarios.

9. El método según se definió en la reivindicación 2, en donde la etapa de identificar comprende adicionalmente la etapa de recuperar la información del beneficiario desde una minuta reductora exhibida en un dispositivo utilizado por el pagador.

10. El método según se definió en la reivindicación 2, en donde la etapa de identificación comprende adicionalmente la etapa de la manipulación por el pagador de la información del beneficiario en un dispositivo utilizado por el pagador.

11. El método según se definió en la reivindicación 2, en donde la etapa de identificar comprende adicionalmente la etapa de recuperar la información del beneficiario por teléfono.

12. El método según se definió en la reivindicación 1, en donde la institución del beneficiario y la institución del pagador son instituciones financieras.

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13. El método según se definió en la reivindicación 1, en donde la institución del beneficiario y la institución del pagador son bancos.

14. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de recibir un mensaje de pago contendiendo el mensaje de pago una identificación de la institución del beneficiario, la cuenta del beneficiario y el monto del pago.

15. El método según se definió en la reivindicación 14, en donde la autorización de pago es generada en respuesta al recibo del mensaje de pago.

16. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de confirmar la validez de la identificación y de la institución del beneficiario y la cuenta del beneficiario antes de la etapa de transmitir el mensaje de crédito de EFT.

17. El método según se definió en la reivindicación 16, en donde la etapa de confirmación es llevada a cabo a través de la red de EFT.

18. El método según se definió en la reivindicación 16, en donde la etapa de confirmación es llevada a cabo a través del Internet.

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19. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapas de transmitir una confirmación de pago a la transmisión que confirma el beneficiario del mensaje de crédito de EFT.

20. El método según se definió en la reivindicación 19, en donde la confirmación de pago es transmitida antes de la transmisión del mensaje de crédito de EFT.

21. El método según se definió en la reivindicación 19, en donde la confirmación de pago es transmitida después de la transmisión del mensaje de crédito de EFT.

22. El método según se definió en la reivindicación 19, en donde la confirmación de pago es transmitida a través del Internet.

23. El método según se definió en la reivindicación 19, en donde la confirmación de pago es transmitida mediante correo electrónico.

24. El método según se definió en la reivindicación 19, que comprende adicionalmente la etapa de almacenar la confirmación de pago del beneficiario.

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25. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la autorización de pago a la institución del pagador comprende adicionalmente la etapa de transmitir la autorización de pago a través del Internet.

26. El método según se definió en la reivindicación 25, en donde la etapa de transmitir la autorización de pago a la institución del pagador es llevada a cabo utilizando un computador personal.

27. El método según se definió en la reivindicación 25, en donde la etapa de transmitir la autorización de pago de la institución del pagador es llevada a cabo utilizando una máquina ATM.

28. El método según se definió en la reivindicación 25, en donde la etapa de transmitir la autorización de pago a la institución del pagador es llevada a acabo utilizando una Cabina capacitada por Internet.

29. El método según se definió en la reivindicación 25, en donde la etapa de transmitir la autorización de pago a la institución del pagador es llevada a cabo utilizando un Asistente Personal Digital capacitado por Internet.

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30. El método según se definió en la reivindicación 25, en donde la etapa de transmitir la autorización de pago a la institución del pagador es llevada a cabo utilizando una televisión interactiva.

31. El método según se definió en la reivindicación 1, en donde la etapa de transmitir la autorización de pago a la institución del pagador, comprende adicionalmente la etapa de transmitir la petición de pago por teléfono.

32. El método según se definió en la reivindicación 31, en donde el teléfono es un teléfono celular.

33. El método según se definió en la reivindicación 1, que comprende adicionalmente la etapa de llevar a cabo un arreglo entre la institución del pagador y la institución del beneficiario al menos con respecto al crédito contenido en el mensaje de crédito EFT.

34. El método según se definió en la reivindicación 1, en donde el mensaje de crédito EFT representa un crédito único y no una inversión de un débito.

35. El método según se definió en la reivindicación 1, en donde la cuenta del beneficiario es una cuenta de recibo solamente.

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591

36. El método según se definió en la reivindicación 35, que comprende adicionalmente la etapa de informar al beneficiario el reconocimiento de la cuenta de recibo solamente.

37. El método según se definió en la reivindicación 35, que comprende adicionalmente la etapa de transferir la cantidad acreditada del pago desde la cuenta de recibo solamente a una cuenta diferente mantenida por el beneficiario.

38. El método según se definió en la reivindicación 1, en donde la autorización de pago identifica la cuenta del pagador mediante una primera dirección.

39. El método según se definió en la reivindicación 38, que comprende adicionalmente la etapa de recibir créditos transmitidos a una segunda dirección que identifica la cuenta del pagador.

40. El método según se definió en la reivindicación 39, que comprende adicionalmente la etapa de prohibir débitos desde la cuenta del pagador utilizando la segunda dirección debido a lo cual el pagador puede publicar la segunda dirección para el recibo de créditos a la cuenta del pagador.

41. El método según se definió en la reivindicación 39, en donde la primera y la segunda direcciones son diferentes.

42. El método según se definió en la reivindicación 38, en donde la primera dirección identifica adicionalmente la institución del pagador.

43. El método según se definió en la reivindicación 38, que comprende adicionalmente la etapa de ligar una tarjeta física a la cuenta del pagador.

44. El método según se definió en la reivindicación 43, que comprende adicionalmente la etapa de requerir un Número de Identificación Personal (PIN) cuando la tarjeta física es utilizada para acceder a la cuenta del pagador.

45. El método según se definió en la reivindicación 1, en donde el pagador tiene una cuenta de tarjeta de crédito con un emisor, comprendiendo el método adicionalmente las etapas de:

transmitir una solicitud de crédito al emisor en el monto del pago;

recibir una autorización de la solicitud de crédito en el monto del pago; y

acreditar la cuenta del pagador en el monto del pago.

46. Un método para efectuar pagos electrónicos por compras en serie hechas por un consumidor desde un comerciante, comprendiendo el método las etapas de:

identificar un monto de compra e información del comerciante, identificando la información de comerciante una institución que mantiene la cuenta del comerciante y una cuenta de comerciante en la institución que retiene la cuenta del comerciante;

formar una autorización de pago que identifica el monto de la compra y la información del comerciante;

transmitir la autorización de pago a una institución que mantiene la cuenta en la cual el consumidor mantiene una cuenta de consumidor;

debitar la cuenta del consumidor por el monto de la compra;

generar una instrucción de crédito de Transferencia Electrónica de Fondos (EFT) para acreditar la cuenta del comerciante por el monto de la compra;

transmitir la instrucción de crédito de Transferencia Electrónica de Fondos a la institución que mantiene la cuenta del comerciante a través de una Red de Transferencia Electrónica de Fondos; y

acreditar la cuenta del comerciante por el monto de la compra.

47. El método según se definió en la reivindicación 46, en donde el consumidor es un negocio.

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48. El método según se definió en la reivindicación 46, en donde la etapa de identificación comprende adicionalmente la etapa de recuperar la información del comerciante desde un emplazamiento de Internet.

49. El método según se definió en la reivindicación 48, en donde el emplazamiento de Internet es un emplazamiento de Internet del comerciante.

50. El método según se definió en la reivindicación 49, en donde la información del comerciante es extendida hasta el consumidor desde el emplazamiento de Internet del comerciante.

51. El método según se definió en la reivindicación 49, en donde la información del comerciante es extraída por el consumidor desde el emplazamiento de Internet del comerciante.

52. El método según se definió en la reivindicación 48, en donde el emplazamiento de Internet contiene un directorio de información de beneficiario para un número de beneficiarios y en donde la etapa de recuperar la información de comerciante comprende adicionalmente la

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etapa de seleccionar la información de comerciante desde el directorio.

53. El método según se definió en la reivindicación 46, en donde la etapa de identificación comprende adicionalmente la etapa de recuperar la información de comerciante desde un directorio que contiene información de comerciante para un número de comerciantes.

54. El método según se definió en la reivindicación 46, en donde la etapa de identificar comprende adicionalmente la etapa de recuperar la información de comerciante desde una lista reducida exhibida en un dispositivo empleado por el consumidor.

55. El método según se definió en la reivindicación 46, en donde la etapa de identificación comprende adicionalmente la etapa del manejo por el consumidor de la información del comerciante en un dispositivo utilizado por el consumidor.

56. El método según se definió en la reivindicación 46, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la cuenta del consumidor comprende adicionalmente la etapa de transmitir la autorización de pago a través del Internet.

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596

57. El método según se definió en la reivindicación 56, en donde la etapa de transmitir la autorización de pago a través del Internet es llevada a cabo con una solicitud de Software de Billetera.

58. El método según se definió en la reivindicación 56, que comprende adicionalmente la etapa de proveer seguridad con respecto a la transmisión de la autorización de pago a través del Internet.

59. El método según se definió en la reivindicación 58, en donde la etapa de proveer seguridad comprende adicionalmente la etapa de autenticación.

60. El método según se definió en la reivindicación 59, en donde la etapa de proveer seguridad adicional comprende adicionalmente encriptar la autorización de pago.

61. El método según se definió en la reivindicación 56, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la cuenta del consumidor es llevada a cabo utilizando un computador personal.

62. El método según se definió en la reivindicación 56, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la

cuenta del consumidor es llevada a cabo utilizando una máquina ATM.

63. El método según se definió en la reivindicación 56, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la cuenta del consumidor es llevada a cabo utilizando una Cabina capacitada por Internet.

64. El método según se definió en la reivindicación 56, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la cuenta del consumidor es llevada a cabo utilizando una televisión interactiva.

65. El método según se definió en la reivindicación 46, en donde la etapa de transmitir la autorización de pago a la institución financiera del consumidor comprende adicionalmente la etapa de transmitir la solicitud de pago por teléfono.

66. El método según se definió en la reivindicación 46, en donde la institución que mantiene la cuenta del consumidor y la institución que mantiene la cuenta del comerciante son bancos.

67. El método según se definió en la reivindicación 46, en donde la etapa de transmitir la autorización de pago a la institución que mantiene la

cuenta del consumidor comprende adicionalmente la etapa de transmitir la autorización de pago por Asistente Digital Personal.

68. El método según se definió en la reivindicación 46, en donde la cuenta del comerciante es una cuenta de recibo solamente.

69. El método según se definió en la reivindicación 46, en donde la institución que mantiene la cuenta del consumidor es un banco, y en donde la cuenta del consumidor es una cuenta de depósito a la vista.

70. El método según se definió en la reivindicación 46, en donde la cuenta del consumidor es una cuenta utilizada solamente para hacer pagos utilizando el método de la presente invención.

71. El método según se definió en la reivindicación 46, en donde la cuenta del consumidor es una cuenta utilizada solamente para hacer pagos y recibir créditos utilizando el método de la presente invención.

72. El método según se definió en la reivindicación 46, en donde la cuenta de consumidor está financiada desde una cuenta diferente mantenida por el consumidor.

73. El método según se definió en la reivindicación 72, en donde la cuenta diferente es una cuenta de depósito a la vista.

74. El método según se definió en la reivindicación 46, que comprende adicionalmente la etapa de confirmar la exactitud de la identificación de la institución que mantiene la cuenta del comerciante y la cuenta del comerciante antes de la etapa de transmitir el mensaje de crédito de EFT.

75. El método según se definió en la reivindicación 74, en donde la etapa de confirmación es llevada a cabo utilizando la red de EFT.

76. El método según se definió en la reivindicación 46, que comprende adicionalmente la etapa de transmitir una confirmación de pago a la transmisión que confirma al comerciante del mensaje de crédito de EFT.

77. Un método para efectuar un crédito electrónico a una cuenta de destinación en una institución de destinación, comprendiendo el método las etapas de:

identificar la cuenta de destinación, la institución de destinación, y una cantidad del crédito; y

transmitir un mensaje de crédito de Transferencia Electrónica de Fondos (EFT) a la institución de destino a través de una red de Transferencia Electrónica de Fondos, el mensaje de crédito EFT que representa el crédito.

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78. El método según se definió en la reivindicación 77, que comprende adicionalmente la etapa de acreditar la cuenta de destino en la cantidad del crédito en respuesta al recibo del mensaje de crédito EFT.

79. El método según se definió en la reivindicación 77, en donde el crédito se origina de una cuenta de origen, comprendiendo el método adicionalmente la etapa de debitar la cuenta de origen en el monto del crédito.

80. El método según se definió en la reivindicación 77, en donde la institución de destino es un banco.

81. Un sistema para efectuar un pago electrónico entre un pagador y un beneficiario utilizando una red de Transferencia Electrónica de Fondos (EFT), teniendo el pagador una cuenta de pagador en una institución de pagador y teniendo el beneficiario una cuenta de beneficiario en una institución de beneficiario, comprendiendo el sistema:

un primer componente de Software que genera una autorización de pago que identifica la institución de beneficiario, la cuenta de beneficiario y una cantidad del monto, el primer componente de Software transmitiendo adicionalmente la autorización de pago a la institución del pagador;

un segundo componente de Software en la institución del pagador acoplado al primer componente de Software y acoplado a la red de EFT, recibiendo el segundo componente de Software la autorización de pago y transmitiendo desde la institución del pagador a la institución del beneficiario a través de la red de EFT un mensaje de crédito EFT que representa un crédito en la cantidad del pago; y

un tercer componente de Software en la institución del beneficiario acoplado a la red de EFT, recibiendo el tercer componente de Software el mensaje de crédito de EFT y acreditando la cuenta del beneficiario en la cantidad del pago.

82. El sistema según se definió en la reivindicación 81, en donde el primer componente de Software es una aplicación de Software de Billetera.

83. El sistema según se definió en la reivindicación 81, en donde el primer componente de Software identifica información de beneficiario, incluyendo la información de beneficiario la institución del beneficiario y la cuenta del beneficiario.

84. El sistema según se definió en la reivindicación 83, en donde el primer componente de Software comprende adicionalmente una Interfase de Programación de Aplicación (API) de recuperación para recuperar la información del beneficiario desde un emplazamiento de Internet.

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85. El sistema según se definió en la reivindicación 84, en donde el API de recuperación recupera la información del beneficiario cuando esta es movida desde el emplazamiento de Internet.

86. El sistema según se definió en la reivindicación 84, en donde la API de recuperación extrae la información del beneficiario desde el emplazamiento de Internet.

87. El sistema según se definió en la reivindicación 84, en donde el emplazamiento de Internet contiene un directorio de información de beneficiario para un número de beneficiarios y en donde el API de recuperación selecciona la información del beneficiario desde el directorio.

88. El sistema según se definió en la reivindicación 83, que comprende adicionalmente un directorio que contiene información de beneficiario para un número de beneficiarios, en donde el primer componente de Software identifica la información de beneficiario que utiliza el directorio.

89. El sistema según se definió en la reivindicación 81, en donde la institución del pagador y la institución del beneficiario son bancos.

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90. El sistema según se definió en la reivindicación 81, que comprende adicionalmente un dispositivo sobre el cual el primer componente de Software es accesado y controlado.

91. El sistema según se definió en la reivindicación 90, que comprende adicionalmente una minuta reductora exhibida sobre el dispositivo en donde la minuta reductora contiene información del beneficiario para un número de beneficiario.

92. El sistema según se definió en la reivindicación 90, que comprende adicionalmente un tablero acoplado al dispositivo, en donde la información de beneficiario es identificada con clave en el dispositivo utilizando el tablero.

93. El sistema según se definió en la reivindicación 90, en donde el dispositivo es un computador personal.

94. El sistema según se definió en la reivindicación 90, en donde el dispositivo es una máquina ATM capacitada por Internet.

95. El sistema según se definió en la reivindicación 90, en donde el dispositivo es una Cabina capacitada por Internet.

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96. El sistema según se definió en la reivindicación 90, en donde el dispositivo es un Asistente Digital Personal capacitado por Internet.

97. El sistema según se definió en la reivindicación 90, en donde el dispositivo es una televisión interactiva.

98. El sistema según se definió en la reivindicación 90, en donde el dispositivo es un teléfono.

99. El sistema según se definió en la reivindicación 98, en donde el teléfono es un teléfono celular.

100. El sistema según se definió en la reivindicación 81, que comprende adicionalmente un cuarto componente de Software acoplado al primer componente de Software, transmitiendo el cuarto componente de Software un mensaje de pago al primer componente de Software, conteniendo el mensaje de pago una identificación de la institución del beneficiario, la cuenta del beneficiario y el monto del pago.

101. El sistema según se definió en la reivindicación 100, en donde el cuarto componente de Software es controlado por el beneficiario.

102. El sistema según se definió en la reivindicación 81, en donde el primer componente de Software confirma la validez de la identificación de la institución del beneficiario y la cuenta del beneficiario.

103. El sistema según se definió en la reivindicación 81, en donde el segundo componente de Software confirma la validez de la identificación del banco del beneficiario y la cuenta del beneficiario.

104. El sistema según se definió en la reivindicación 81, en donde el primer componente de Software transmite una confirmación de pago a la transmisión que confirma el beneficiario del mensaje de crédito de EFT.

105. El sistema según se definió en la reivindicación 104, en donde la confirmación de pago es transmitida por correo electrónico.

106. El sistema según se definió en la reivindicación 81, en donde el segundo componente de Software transmite una confirmación de pago a la transmisión que confirma el beneficiario del mensaje de crédito de EFT.

107. El sistema según se definió en la reivindicación 81, en donde el primer componente de Software es acoplado al segundo componente de Software a través del Internet.

108. El sistema según se definió en la reivindicación 81, en donde el mensaje de crédito de EFT representa un crédito único y no una anulación de un crédito.

109. El sistema según se definió en la reivindicación 81, en donde la cuenta del beneficiario es una cuenta de recibo solamente.

110. El sistema según se definió en la reivindicación 81, que comprende adicionalmente un componente de informe de Software acoplado a la cuenta del beneficiario, informando el componente informador de Software al beneficiario la concesión de crédito de la cuenta del beneficiario.

111. El sistema según se definió en la reivindicación 81, en donde la cuenta del pagador tiene una primera dirección siendo utilizada la primera dirección para tener acceso a la cuenta del pagador para hacer pagos desde la cuenta del pagador.

112. El sistema según se definió en la reivindicación 111, en donde la cuenta del pagador tiene una segunda dirección, siendo utilizada la segunda dirección para recibir créditos transmitidos a la cuenta del pagador.

113. El sistema según se definió en la reivindicación 112, en donde débitos de la cuenta del pagador son prohibidos utilizando la segunda

dirección, debido a lo cual el pagador puede publicar la segunda dirección para el recibo de créditos a la cuenta del pagador.

114. El sistema según se definió en la reivindicación 112, en donde la primera y la segunda direcciones son diferentes.

115. El sistema según se definió en la reivindicación 111, en donde la primera dirección adicionalmente identifica la institución del pagador.

116. El sistema según se definió en la reivindicación 81, que comprende además una tarjeta física lógicamente enlazada a la cuenta del pagador.

117. El sistema según se definió en la reivindicación 116, en donde la tarjeta física está enlazada a la cuenta del pagador a través del segundo componente de Software, requiriendo el segundo componente de Software un Número de Identificación Personal (PIN) en donde la tarjeta física es utilizada para tener acceso a la cuenta del pagador.

118. Un sistema para efectuar un pago electrónico entre un pagador y un beneficiario utilizando una red Electrónica de Transferencia de Fondos (EFT), teniendo el pagador una cuenta de pagador en una institución del pagador y teniendo el beneficiario una cuenta de beneficiario en una institución de beneficiario, comprendiendo el sistema:

un primer procesador que genera autorización de pago que identifica la institución del beneficiario, la cuenta del beneficiario y una cantidad del pago, transmitiendo adicionalmente el primer procesador la autorización de pago a la institución del pagador;

un segundo procesador en la institución del pagador acoplado al primer procesador y acoplado a la red de EFT, recibiendo el segundo procesador la autorización de pago y transmitiendo desde la institución del pagador a la institución del beneficiario, a través de la red de EFT un mensaje de crédito de EFT que representa un crédito en la cantidad del pago; y

un tercer procesador en la institución del beneficiario acoplado a la red de EFT, recibiendo el tercer procesador el mensaje de crédito de EFT y acreditando la cuenta del beneficiario en la cantidad del pago.

119. El sistema según se definió en la reivindicación 118, en donde la institución del beneficiario y la institución del pagador son bancos.

120. Un sistema para efectuar pagos electrónicos para compras en serie hechas por un consumidor desde un comerciante, comprendiendo el sistema:

un dispositivo de consumidor que identifica una cantidad de compra e información de comerciante, identificando la información de comerciante una institución financiera de comerciante y una cuenta de comerciante en la institución financiera del comerciante, transmitiendo

adicionalmente el dispositivo del consumidor una autorización de pago a una institución financiera en la cual el consumidor mantiene una cuenta de consumidor, identificando la autorización de pago la cantidad de compra y la información de comerciante;

un primer procesador localizado en la institución financiera del consumidor, recibiendo el primer procesador la autorización de pago desde el dispositivo del consumidor y generando una instrucción de crédito de Transferencia Electrónica de Fondos (EFT) para acreditar la cuenta del comerciante por la cantidad de compra;

una red de Transferencia Electrónica de Fondos acoplada al primer procesador, en donde el primer procesador transmite la instrucción de crédito de Transferencia Electrónica de Fondos a la institución financiera del comerciante a través de la red de Transferencia Electrónica de Fondos; y

un segundo procesador localizado en la institución financiera del comerciante, recibiendo el segundo procesador el crédito de la Transferencia Electrónica de Fondos y acreditando la cuenta del comerciante por la cantidad de compra.

121. El sistema según se definió en la reivindicación 120, que comprende adicionalmente un primer componente de software y un segundo componente de software, cada uno del primero y segundo componentes de software estando controlados mediante el dispositivo del consumidor, en donde el primer software identifica la

cantidad de compra y la información del comerciante y en donde el segundo componente de software transmite la autorización de pago a la institución financiera del consumidor.

122. El sistema según se definió en la reivindicación 121, que comprende adicionalmente un servidor, en donde el primer componente de software reside en el dispositivo del consumidor y en donde el segundo componente de software reside en un servidor.

123. El sistema según se definió en la reivindicación 122, en donde el servidor es operado por o a favor de la institución financiera del consumidor.

124. El sistema según se definió en la reivindicación 121, en donde el primero y el segundo componentes de software comprenden una Billetera Electrónica.

125. El sistema según se definió en la reivindicación 120, que comprende adicionalmente un servidor que aloja un sitio de Internet del comerciante, en donde el dispositivo del consumidor está acoplado al emplazamiento de Internet del comerciante y en donde el dispositivo del consumidor identifica la cantidad de compra y la información del comerciante desde el emplazamiento de Internet del comerciante.

126. El sistema según se definió en la reivindicación 120, que comprende adicionalmente un módulo de seguridad acoplado al dispositivo del consumidor, suministrando el módulo de seguridad con respecto a la transmisión de la autorización de pago.

127. El sistema según se definió en la reivindicación 126, en donde el módulo de seguridad realiza procedimientos de autenticación.

128. El sistema según se definió en la reivindicación 126, en donde el módulo de seguridad encripta la autorización de pago.

129. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es un computador personal.

130. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es una máquina ATM capacitada por Internet.

131. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es una Cabina capacitada por Internet.

132. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es una televisión interactiva.

133. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es un teléfono.

134. El sistema según se definió en la reivindicación 133, en donde el teléfono es un teléfono celular.

135. El sistema según se definió en la reivindicación 120, en donde el dispositivo del consumidor es un Asistente Digital Personal.

136. Un sistema para efectuar un crédito electrónico desde una cuenta de origen en una institución de origen hasta una cuenta de destino en una institución de destino, comprendiendo el sistema:

un primer procesador en la institución de origen, generando el primer procesador un mensaje de crédito de Transferencia Electrónica de Fondos identificando el mensaje la cuenta de destino, la institución de destino y una cantidad del crédito;

una red de Transferencia Electrónica de Fondos acoplada al primer procesador, en donde el primer procesador transmite el mensaje de crédito de Transferencia Electrónica de Fondos a la institución de destino a través de la red de Transferencia Electrónica de Fondos; y

un segundo procesador en la institución de destino, estando acoplado el segundo procesador a la red de Transferencia Electrónica de Fondos y recibiendo el mensaje de crédito de Transferencia Electrónica de Fondos desde el primer procesador.

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137. El sistema según se definió en la reivindicación 136, en donde el segundo procesador acredita la cuenta de destino en la cantidad del crédito en respuesta al recibo del mensaje de crédito de Transferencia Electrónica de Fondos.

138. El sistema según se definió en la reivindicación 136, en donde el primer procesador debita la cuenta de origen en el monto del crédito.

139. El sistema según se definió en la reivindicación 136, en donde las instituciones de origen y de destino son bancos.

140. Un método para que un usuario pague electrónicamente una factura proveniente de una institución de facturación, teniendo el usuario una cuenta de banco de usuario en un banco de usuario, comprendiendo el método las etapas de:

generar una autorización de pago de factura, identificando la autorización de pago un banco del facturador, una cuenta de banco del facturador en el banco del facturador y una cantidad del pago de la factura;

transmitir la petición de autorización de pago de factura al banco del usuario;

debitar la cuenta del banco del usuario por la cantidad del pago de la factura;

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transmitir a través de una red de Transferencia Electrónica de Fondos un mensaje de crédito de Transferencia Electrónica de Fondos que representa un crédito en la cantidad del pago de la factura desde el banco del usuario hasta el banco del facturador; y

acreditar la cuenta del banco del facturador en la cantidad del pago de la factura en respuesta al recibo del mensaje de crédito de Transferencia Electrónica de Fondos.

141. El método según se definió en la reivindicación 140, en donde el usuario es un consumidor.

142. El método según se definió en la reivindicación 140, en donde el usuario es un negocio.

143. El método según se definió en la reivindicación 140, que comprende adicionalmente las etapas de:

conectar el usuario al Internet;

conectar el usuario a un sitio de red de Internet del facturador; y

transmitir el sitio de red del facturador al usuario un mensaje de pago de factura, identificando el mensaje de pago de factura el banco del facturador, la cuenta del banco del facturador y una cantidad del pago de la factura, en donde la autorización del pago de la factura es generada en respuesta al mensaje de pago de la factura.

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144. El método según se definió en la reivindicación 140, que comprende adicionalmente la etapa de notificar al usuario de una factura a ser pagada.

145. El método según se definió en la reivindicación 144, en donde la etapa de notificación comprende adicionalmente la etapa de notificar electrónicamente el usuario a través de una notificación electrónica.

146. El método según se definió en la reivindicación 145, en donde la notificación electrónica es un correo electrónico.

147. El método según se definió en la reivindicación 144, que comprende adicionalmente la etapa de incorporar un enlace activo en el correo electrónico al sitio de la red del facturador, en donde cuando el usuario selecciona el enlace activo, el usuario es conectado automáticamente al sitio de la red del facturador.

148. El método según se definió en la reivindicación 140, que comprende adicionalmente la etapa de generar un registro de pago en respuesta a la acción de acreditar de la cuenta del facturador.

149. El método según se definió en la reivindicación 148, en donde el facturador mantiene un sistema de cuenta por cobrar, conteniendo el sistema de cuenta por cobrar información que refleja una cuenta de

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facturación asociada con el usuario, comprendiendo adicionalmente el método la etapa de conciliar el registro de pago contra la cuenta de facturación del usuario.

150. El método según se definió en la reivindicación 140, que comprende adicionalmente las etapas de:

conectar el usuario al Internet;

conectar el usuario a un sitio de la red de Internet de un Proveedor de Servicio de Abonado (CSP), llevando a cabo el CSP los servicios de facturación para el facturador; y

transmitir el sitio de la red del CSP al usuario un mensaje de pago de factura, identificando el mensaje de pago de la factura el facturador, un banco del CSP, una cuenta bancaria del CSP y una cantidad del pago de la factura, en donde la autorización del pago de la factura es generada en respuesta al mensaje de pago de la factura, y en donde la cuenta bancaria del CSP es abonada en la cantidad del pago de la factura en respuesta al recibo del mensaje de crédito de Transferencia Electrónica de Fondos.

151. El método según se definió en la reivindicación 150, que comprende adicionalmente la etapa de transferir el monto del pago de la factura desde la cuenta bancaria del CSP a la cuenta bancaria del facturador.

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cantidad del pago de la factura en respuesta al recibo del mensaje de crédito de Transferencia Electrónica de Fondos.