An Electronic Payment System

Technical Field

The invention concerns an electronic payment system for purchasing goods and services using virtual money.

Background of the Invention

Traditionally, payment settlement of international trade is done through the banking system in the form of wire transfers and other forms of payment. These payment methods are targeted at transaction above a certain size and are not cost effective for smaller transactions. For small transactions, payment settlement is achieved primarily through payment solution providers, in particular credit card companies.

However, credit card payment solutions impose substantial charges on the merchant. The most significant charge is the discount rate that ranges between 2.5% and 4% of the transaction for Internet based businesses. Access to electronic gateways to validate credit card information may also be charged to the merchant. Further, FX conversion charges are payable if more than one currency is involved. In total, a merchant is charged between 3% to 7% per credit card payment.

Another payment solution involves virtual money. Virtual money is a proxy for real money and is not legal tender. Virtual money is convertible to real money on demand. The credit worthiness of virtual money relies on each unit of virtual money being backed by a corresponding unit of real money. The nature of virtual money allows easy worldwide access. This makes it highly suitable for electronic commerce via the Internet.

However, traditional virtual money solutions have so far proved unpopular as they suffer from credit risk and shipping risk problems when used as a form of payment. Traditional virtual money requires frequent telegraphic transfers, and this sets the floor for the cost structure of virtual money. In addition to this, there are high running costs for a virtual money system, which in turn increases the cost of using virtual money. This high cost eventually reduces demand for virtual money. Another problem with traditional virtual money solutions is that no effective

exchange mechanism is available to convert virtual money into real money and vice versa.

Summary of the Invention

In a first preferred aspect, there is provided an electronic payment system for purchasing goods and services using virtual money, the system comprising:

a server to facilitate formation of a contract between a purchaser and a vendor, for purchasing goods or services in exchange for virtual money;

a virtual money reservation module to reserve a purchaser reservation amount in an account of the purchaser, the purchaser reservation amount being an amount of virtual money including a first portion to be paid to the vendor in exchange for the goods or services; and

a money release module to release the first portion of the purchaser reservation amount to the vendor after the goods or services are received by the purchaser;

wherein virtual money is a proxy for real money and convertible to real money having a legal tender.

Advantageously, payment is performed without active participation from existing financial institutions. In at least one embodiment, the present invention uses a money proxy, that is, virtual money, rather than real money as the medium of exchange, in combination with an escrow protocol on the money proxy to enable untrusting parties to trade with high confidence.

Virtual money may include an extension of credit from a credit card company, banks or financial institutions, or loans.

The system may further comprise a re-negotiation module to allow the terms of the contract to be re-negotiated. Virtual money may not be refunded to the purchaser unless the vendor agrees to the refund explicitly as part of the re-negotiated terms.

The system may further comprise a dispute resolution module to resolve a dispute if re-negotiation fails.

The purchaser reservation amount may include a second portion to be paid as a late fee if the trade does not complete within a predetermined period of time. The

virtual money reservation module may reserve a vendor reservation amount in an account of the vendor, the vendor reservation amount being an amount of virtual money. The vendor reservation amount may include a first portion to be paid as a late fee if the trade does not complete within the predetermined period of time. If the trade is completed within the predetermined period of time, the late fee may be refunded to the vendor and purchaser.
Alternatively, the late fee may be paid only when the trade does not complete within a predetermined period of time.

The virtual money reservation module and money release module may be executed by an application server.

The system may further comprise an authentication module to authenticate and validate users, including the vendor and purchaser. An authenticated user may receive an application cookie to enable the authenticated user to securely communicate with the application server.

An issuer may create new virtual money when a user buys virtual money from the issuer with real money. The issuer may destroy virtual money when a user sells virtual money back to the issuer for real money.

An electronic marketplace may be provided to enable users to browse goods or services offered for sale or purchase. The electronic marketplace may be a set of user interfaces within the electronic payment system.

In a second aspect, there is provided a computer-implemented method for purchasing goods or services using virtual money, the method comprising:

forming a contract between a purchaser and a vendor for purchasing goods or services in exchange for virtual money;

reserving a purchaser reservation amount in an account of the purchaser, the purchaser reservation amount being an amount of virtual money including:

a first portion to be paid to the vendor in exchange for the goods or services;

releasing the first portion of the purchaser reservation amount to the vendor after the goods or services are received by the purchaser;

wherein virtual money is a proxy for real money and convertible to real money having a legal tender.

Advantageously, the present invention enables two parties to establish a trusting relationship despite not knowing each other beforehand and enables an efficient market for the exchange of real money having a legal tender in a variety of currencies.

Virtual money may include an extension of credit from a credit card company, banks or financial institutions, or loans.

The method may further comprise re-negotiating the terms of the contract between the vendor and purchaser. Virtual money may not be refunded to the purchaser unless the vendor agrees to the refund explicitly as part of the re-negotiated terms.

The method may further comprise resolving disputes between the purchaser and vendor if re-negotiation fails.

The purchaser reservation amount may include a second portion to be paid as a late fee if the trade does not complete within a predetermined period of time.
The method may further comprise the step of reserving a vendor reservation amount in an account of the vendor, the vendor reservation amount being an amount of virtual money. The vendor reservation amount may include a first portion to be paid as a late fee if the trade does not complete within the predetermined period of time.
If the trade is completed within the predetermined period of time, the late fee may be refunded to the first and second parties.
Alternatively, the late fee may be paid only when the trade does not complete within a predetermined period of time.

The purchaser reservation amount may also include a third portion to be paid as a service fee to a service provider for facilitating the trade.
The vendor reservation amount may also include a second portion to be paid as a service fee to a service provider for facilitating the trade.
The third portion of the purchaser reservation amount and the second portion of the vendor reservation amount may be paid to the service provider after the first portion of the purchaser reservation amount is released to the vendor.

The contract may include conditions such as:

an amount of the goods or services;

a description of the goods or services;

the amount of electronic money in exchange for the amount of goods or services;

the period in which the offer is valid;

the period in which the trade must be completed once the offer is accepted;

the maximum amount of a payable late fee charge

parameters used to compute a payable late fee

the method of delivering the goods or services;

the warranty and after-sales service provided by the vendor; or

dispute resolution policy.

The formation of the contract may originate from the purchaser or the vendor.

The contract may permanently fail if there are insufficient funds in the account of the purchaser for the purchaser reservation amount.

Each unit of virtual money may be supported by a corresponding unit of real money.

In a preferred embodiment, there is provided an electronic payment system accessible through an electronic communication system for facilitating the purchase of goods using virtual money between untrusting parties. The system is independent of the denominations of virtual money and types of goods traded. The trading of goods covers the trading of real money and goods or services.

The system escrows virtual money, a form of proxy money, rather than real money directly. The payment system also acts as the escrow agent, rather than outsourcing the escrow agent services to an external third party. Escrowing the proxy form of real money provides several advantages. Firstly, to mitigate credit risk as well as shipping risk, the escrow protocol requires vendors to deposit an amount of virtual money at the moment the contract is formed. The escrow protocol may require purchasers to also deposit an amount of virtual money at the moment the contract is formed if a late fee applies. This act of real time depositing of virtual money is not possible with real money. The deposit allows two parties that do not know and trust each other to trade with high confidence. Secondly, the borderless

nature of virtual money enables the escrow protocol to be used for international or online trade without loss of effectiveness. This is difficult if the protocol attempted to escrow real money instead. Thirdly, the electronic representation of virtual money makes it possible to create an escrow protocol that is highly automated and does not require human intervention on the part of the escrow agent.

Escrowing virtual money lowers the cost of using virtual money. The act of escrowing makes it possible to create a single market for the exchange of real money with virtual money. Without escrow, it is difficult for a user to make an offer to the public as the risk is too high. The act of escrow reduces the chance of the counter party not fulfilling his part of the deal. With that assurance, a single market for the exchange of real money becomes feasible.

A single market for the exchange of real money with virtual money benefits users directly. The user is no longer restricted to a small group of brokers. Instead, when he makes an offer to exchange real money, brokers and ordinary users are able to accept that offer. This implies that the user is able to get good exchange rates for his offer.

The broker is able to make use of the single market to redress the imbalance in his virtual money account. If the imbalance experienced by the broker is local to himself, that is, the rest of the virtual money market is not experiencing an imbalance, the broker is likely to get a good price when he tries to buy/sell virtual money to rebalance his account. By exploiting the fact that international real money movement (via wire transfer) is expensive while intra-national fund movement (cash, cheque, electronic fund transfers) is cheap, the system encourages the trading of real money to be conducted between local virtual money users. That is, virtual money users who are able to deliver the real money cheaply via cheque or intra-national electronic fund transfer are more likely to trade with each other than otherwise. This in turns leads to a cheaper process for the exchange of real money for virtual money and vice versa.

The use of escrow helps to create a large market for virtual money, which in turn makes the exchange process for real money highly efficient. Costly delivery methods such as those that involves the use of wire transfer are minimised as the market sorts itself out by using the most cost effective way to exchange real money where possible.

Furthermore, the system does not require tight coupling with existing financial institutions such as banks and credit card companies to operate efficiently. When virtual money users trade real money amongst themselves they make use of existing means of money delivery mechanism, such as cheques, to accomplish their goal. Existing financial institutions are not actively involved in the sense that they do not need to change any components or work processes of their existing systems to interact with the system.

The system provides a superior trading platform that mitigates credit and shipping risks and is also cost competitive. It allows businesses to offer their goods to users who are located remotely and whom they do not know, without having to incur heavy transactional costs.

The system creates an environment for a trading party to have high confidence that the counter party honors their end of the trade and delivers on the trade, despite the fact they do not know each other. To facilitate trust, the system may impose late fee charges against both parties when there is a delay or an incomplete of trade. This acts as a deterrent on both parties and encourages them to complete the trade. The late fee deposit as well as the parameters for the calculation for the late fee charges can be adjusted accordingly to match the risk profile of the trade. Furthermore, the deposit as well as the calculation method need not be the same for buyers and sellers.

Financial institutions are not directly involved in the process. There is no direct international funds transfer as a result of the trade. This is because both the purchase and sale of virtual money are done locally. Financial institutions only experience a series of local funds transfer and occasional international funds transfer. International fund transfer occurs only when there is an imbalance of virtual money and the broker needs to buy/sell the money direct with the virtual money issuer.

Brief Description of the Drawings

An example of the invention will now be described with reference to the accompanying drawings, in which:

Figure 1 is a block diagram of the electronic payment system in accordance with the preferred embodiment of the invention;
Figure 2 depicts the sub-modules of the application server;
Figure 3 depicts the overall process;
Figure 4 depicts the process for the buyer;
Figure 5 depicts the process for the seller;
Figure 6 depicts the process for the broker;
Figure 7 depicts the process of an offer to buy goods;
Figure 8 depicts the process of accepting an offer to sell goods;
Figure 9 depicts the process of an offer to sell goods;
Figure 10 depicts the process of accepting an offer to buy goods;
Figure 11 depicts the process of buying virtual money from the issuer;
Figure 12 depicts the process of selling back virtual money to the issuer;
Figure 13 depicts an example of a trade deal;
Figure 14 depicts an example of an advertisement offer to trade real money with virtual money;
Figure 15 depicts examples of contact and delivery profiles;
Figure 16 depicts examples of query parameters;
Figure 17 depicts the process of advertisement of offer to sell/buy real money; and
Figure 18 depicts the payment suspension process.

Detailed Description of the Drawings

Figure 1 and the following discussion are intended to provide a brief, general description of a suitable computing environment in which the present invention may be implemented. Although not required, the invention will be described in the general context of computer-executable instructions, such as program modules, being executed by a computer. Generally, program modules include routines, programs, characters, components, and data structures, which perform particular tasks or implement particular abstract data types. As those skilled in the art will appreciate, the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, network PCs, minicomputers, mainframe computers, and the like. The invention may also be practiced in distributed computing environments where tasks are performed by remote processing devices that are linked through a communications network. In a

distributed computing environment, program modules may be located in both local and remote memory storage devices.

Referring to Figure 1, an electronic network-based exchange system 10 is provided. The system 10 is client 11/server 12 based over a network 13 such as the Internet. At the server side 12, there is a HTTP server 14, an application server 15 and other servers such as email server 17 and LDAP server 18. The application server 15 also communicates with a storage server/database 16. HTTP server 14 receives connections to one or more clients 7, 8, 9 via network 13. Communication between HTTP server 14 and the clients 7, 8, 9 is encrypted.

As workload increases, a new HTTP server 14 or a new application server 15 is added to the system 10. Each HTTP server 14 is able to interact with any application server. Although a pair of HTTP 14 and application servers 15 have been described, it is possible to use other arrangements of HTTP servers 14 and application servers.

Business logic of the system 10 resides on the application server 15. While HTTP server 14 primarily handles the presentation logic, application server 15 listens for job requests through the network from the HTTP server 14. Once a job request is received, the application server 15 processes the job requests and returns the results. Examples of job requests include actions that represent the steps of the buying and selling process and retrieving the states of such processes. During the processing of job requests, the application server 15 in turn communicates with other application servers 15 and other services such as the email server 17 and the LDAP server 18.

Referring to Figure 2, the system 10 functionality is performed by sub-modules. These sub-modules include the authentication sub-module 20, the virtual money account sub-module 21, the member account sub-module 22, the buy virtual money from issuer sub-module 23, and the sell virtual money to issuer sub-module 24. Various other sub-modules are provided to handle the transactional logic of different types of operations, for example, offer to buy and sell goods or services, and accept an offer to buy or sell goods or services.

Authentication sub-module 20 authenticates all new incoming requests for connection to the application server 15. Once successfully authenticated, an

application cookie is issued to the connecting client. All subsequent job requests require the connecting client to present the application cookie before the application server 15 processes the request. When an application cookie is presented, the sub-module 20 checks that the application cookie is valid. If it is not valid, sub-module 20 informs the application server 15 and drops the job request.

Virtual money account sub-module 21 records the amount of virtual money a user has. Preferably, virtual money is electronic money having no tangible form. Virtual money also includes an extension of credit from a credit card company, banks or financial institutions, or loans. Virtual money in a virtual money account is divided into two portions: a free portion and a locked portion. The free portion corresponds to the amount of virtual money that is available for use by the user. The locked portion corresponds to the amount of virtual money that has been committed for payment to other users as well as the amount of virtual money that has been committed for payment by other users which has not been released. The locked portion cannot be used by the user. The free and locked portions represent the total amount of virtual money that a user has. The amount of virtual money varies over time as the user uses virtual money in various circumstances. These circumstances include buying or selling goods or services, and exchanging virtual money for real money and vice versa.

Member account sub-module 22 handles creation of membership accounts, modification of user's profile and deletion of membership accounts. Upon successful membership creation, an account number is generated and provided to a new user. The new user uses the account number together with a password to access the system 10. The sub-module 22 captures personal information about the user including their email address and telephone contact details. Emails are used to inform user of the progress of the buy/sell process they are involved in. Contact details are exchanged between users in a transaction, so that they are able to negotiate and co-ordinate the details of the transaction.

The application server 15 stores system parameters as well as user account data. Other stored data include membership account information, virtual money account information, the states of transaction processes (buy/ sell goods or services), log files and support files. The application server 15 stores this information locally or through the storage server 16.

HTTP server 14 listens for requests through the network from a client 7, 8, 9. Once a request is received, the HTTP server 14 processes the job requests and returns the results. Common Gateway Interface (CGI) scripts are embedded in the HTTP server 14 to process the job requests. Other scripting technologies such as ASP, JSP, PHP, .NET, J2EE etc can be used. The HTTP server 14 relies on the application server 15 to process the request. The HTTP server 14 connects to the specific application server 15, makes the job request, receives the results from the application server, parses the results, reconstructs the result into a format compatible with the client and returns that result. Examples of such job requests include actions that represent the steps of buying and selling process and retrieving the states of such processes. The HTTP server 14 does not know how to serve these requests on its own, since the business logic is stored on the application server 15. In processing the job requests, the HTTP server 14 communicates with any of the application servers 15 as necessary. It also communicates with systems providing system services such as the email server 17 and the LDAP server 18, if necessary.

LDAP server 18 is as a directory service for the system 10. It is the responsibility of the LDAP server 18 to know which application server 15 a particular account resides on. A client 7, 8, 9 connects to the system 10 via any available HTTP server 14. Typically, before the client is able to access the useful functions of the system 10, it must authenticate itself to the system 10. An account number is provided to the HTTP server 14. The HTTP server 14 uses the account number as a search parameter to query the LDAP server 18 for the actual application server 15 the account resides on. The HTTP server 14 then connects to the application server 15 and initiates the authentication process. In the authentication process, the HTTP server 14 receives an application cookie from the application server 15. The HTTP server 14 creates its own HTTP cookie, and links the application cookie to the HTTP cookie and return the HTTP cookie to the client browser. Subsequent requests from the client 7, 8, 9 contain the HTTP cookie, which enable the HTTP server 14 to know that the client 7, 8, 9 has been authenticated as it has a valid application cookie and which application server 15 the account resides on.

The email server 17 transmits email notices to users. In one example, immediately after an offer has been accepted, emails are sent out to both the buyer 7 and seller 8. This email informs both parties 7, 8 about the subsequent steps to follow and basic contact information. This ensures that both parties 7, 8 can communicate

with each other (without involving the system 10) to ensure completion of the transaction. The application servers 15 and HTTP servers 14 are able to connect to the email server 17 to send out email. Although email has been described, it possible to use other messaging systems such as SMS messages.

There are three types of users or clients: buyer 7, seller 8 and broker 9. A buyer 7 refers to a user who buys goods using virtual money. A seller 8 refers to a user who sells goods for virtual money. A broker 9 refers to a user who exchanges virtual money for real money and vice versa, and profits from the brokering process.

Referring to Figure 3, after successfully authenticating into the system 10, the user selects a transaction type 30, 31, 32, 36, 37, 38, 39. A transaction types follows a specific process flow. A user is able to participate in multiple processes simultaneously.

Referring to Figure 4, an example of a user using the system 10 to buy goods is described. After successfully authenticating into the system 10, the user must have enough virtual money to make the purchase 40. If not, virtual money must be purchased 41, 42. If the user has enough virtual money, an actual purchase is made 43, 44. The amount of virtual money to be purchased is completely at the discretion of the user, as long as the user has sufficient amount of virtual money to make the purchase of the goods. For example, the user may choose to purchase US$100 worth of virtual money, although the cost of the goods is only US$50 worth of virtual money.

Referring to Figure 5, an example of a user using the system 10 to sell goods is described. After successfully authenticating into the system 10, the user sells his goods by either offering his goods for sale 50 or accepts an offer from a buyer to sell his goods 51. The user can sell the virtual money he received for real money. The user can do this by offering his virtual money for sale 52 or accepting an existing offer to sell virtual money 53. The amount of virtual money to be put up for sale is completely at the discretion of the user, as long as the user has the actual amount of virtual money to put up for sale. For example, the user receives US$100 worth of virtual money. He chooses to sell only US$50 worth of virtual money. The user cannot sell more than US$100 worth of virtual money as he does not have that amount.

Referring to Figure 6, an example of a user acting as a virtual money broker is described. A virtual money broker seeks to match the demand and supply of virtual money by buying virtual money 60, 61 at a lower price and selling them 62, 63 at a higher price, thus making a profit in the process. When the supply of virtual money exceeds that of demand, the broker tends to accumulate more virtual money than what is required. In that event, the broker sells virtual money back to the issuer 64 and receives real money from the issuer in the process. The act of selling of virtual money to the issuer reduces the total amount of virtual money circulating in the system 10. When the demand of virtual money exceeds that of supply, the broker tends to experience a shortage of virtual money. In that event, the broker buys virtual money from the issuer 65. The issuer issues new virtual money to the broker upon receiving real money from the broker. The act of buying of virtual money from the issuer increases the total amount of virtual money circulating in the system 10.

To enable the broker 9 to have an advantage over normal non-broker users when trading real money, system 10 will impose a lower service fee for trades conducted via the broker 9. The lower service fee enables the broker 9 to compete more effectively in the trading of real money.

Clients 7, 8, 9 are able to have multiple transactions occurring simultaneously (both buying and selling), as long as there is a sufficient amount of virtual money to successfully complete those trades.

Offer to buy goods or services process

Referring to Figure 7, the process for an offer to buy goods 36 involves a buyer 7 and a seller 8, which are also referred to as the offeror and the acceptor, respectively. There are three phases in the process. The first phase and third phase are initiated by the offeror 7. The second phase is initiated by the acceptor.

The buyer 7 and seller 8 negotiate 70 the trade. This step is conducted externally from the system 10. The negotiation phase covers a wide range of scenarios. For example, an e-commerce deal offered through a web server. In this case, the web server (the seller 8) presents the terms and conditions of the deal through the web interface, which the client (the seller 7) agrees to by clicking a button as proof of acknowledgement. Upon agreement, the web server sends an email to the client 7, providing a reference number for the proposed trade in the email. The system 10 is

not limited to Internet based deal. For example, the buyer 7 wants to book a hotel reservation in a foreign country. He calls the hotel 8 and negotiates. Upon agreement, the hotel 8 sends an email or fax detailing the terms and conditions of the hotel booking with a quotation number.

The terms and conditions which must be agreed to between the buyer 7 and seller 8 include:

- The quantity as well as the description of goods.
- The amount of virtual money in exchange for the amount of goods as specified above.
- The period in which the offer is valid until, namely the offer period.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the trade completion deadline.

If a late fee applies, then the following parameters are also included:

- The maximum amount of a payable late fee charge
- Parameters used to compute a payable late fee.

Other terms and conditions include:

- The delivery method.
- Warranty and after sale service to be undertaken by the seller.
- Dispute resolution etc.

An example of the hotel reservation deal is depicted in Figure 13.

After successful negotiation, the first phase of making an offer to buy 71 begins. The offeror 7 specifies to the system 10 the following parameters:

- That it is a buy offer (an offer to buy goods with virtual money).
- The description of goods to buy.
- The quantity of goods to buy.
- The amount of virtual money in exchange for the amount of goods as specified above.
- The period in which the offer is valid until, namely the ‘offer period’.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the ‘trade completion deadline’.
- An optional reference string for the offer, namely the “userref”.

If a late fee applies, then the following parameters are also included:

- The maximum amount of a payable late fee charge
- Parameters used to compute a payable late fee.

The optional reference string is used to refer to the detailed trade offer agreement. In the examples given above, the userref is the reference number in the email in the first instance or the quotation number in the second instance.

Some conditions are not entered into the system 10 in step 71. For example, the delivery method is not specified as part of step 71 as the process steps are not affected by the method of delivery. This is not to say that items such as delivery methods are not important terms in the trade deal. In fact they are important and should form part of the terms and conditions of the trade deal in step 70. Likewise, even though “userref” is an optional item, it should be entered if there is one.

After an offer is successfully made, the system 10 notifies the potential seller via email 72. The sending out of the email signifies the end of phase 1. The offeror 7 must wait for the acceptor to accept the offer.

The second phase starts at step 73 when the acceptor 8 accepts the offer. The seller 8 has the right to not accept the offer and let it lapse. If the offer is accepted, the system 10 checks that the offer has not timed out 74. This is based on the parameter “offer period” as set by the offeror 7. If at the point of acceptance the offer has already timed out, the system 10 invalidates the offer and aborts the transaction 75.

The system 10 computes 76 the amount of virtual money that needs to be locked away from the buyer’s virtual money account. The amount of virtual money to be locked away is the sum of the following components. The first component is the amount of virtual money to pay to the seller when the deal is completed. The second component is the service fee charged by the system 10 against the buyer for facilitating the trading process. If a late fee applies, then there is a third component of a maximum payable late fee. Late fee charges are computed and charged against this account if the trade deal takes longer than the time permitted under the ‘trade completion deadline’ to complete.

The system 10 locks away 77 the amount of virtual money computed from the buyer's virtual money account. The locking away ensures that there is enough virtual money to pay the seller when the deal is completed, amongst others. The locking away of virtual money fails if there is insufficient virtual money in the virtual money account. If the locking away fails, the current process of forming a trade deal is aborted and the seller is informed. The offer is however still valid 73. It is possible for the seller 8 to try and re-accept the offer a second time, after the buyer 7 has acquired sufficient virtual money for the trade.

The system 10 successfully locks away 77 the required amount of virtual money. The system 10 informs 78 the offeror 7 that a contract has been formed via email. The email provides the offeror 7 with contact information of the acceptor 8 so as to allow them to co-ordinate the completion of trade deal. It also serves as a reminder to the offeror 7 to complete the trade deal. The second phase ends 79 and returns the control back to the acceptor 98.

If the trade proceeds without problems, the buyer receives the goods 80 and acknowledges 81 the goods, which is the start of the third phase. Alternatively, the system 10 may be configured such that it will release the virtual money to the seller 8 if the buyer 7 does not suspend or dispute the trade within the timeframe provided in the trade completion deadline. Virtual money is released to the seller 82. This amount is taken from the virtual money that was locked away 77. The system 10 receives the service fee for the trade 83. This amount is taken from the virtual money that was locked away 77.

If the trade encounters difficulty, the buyer may suspend payment 87.
If a late fee applies, the system 10 checks to see if the buyer 7 has been late in acknowledging the receipt of goods 84. That is, whether the buyer 7 has exceeded the time given in the contract parameter 'trade completion deadline'. If the deadline has not been exceeded, the remaining locked away virtual money for this contract is returned 86 to the buyer. If the deadline has been exceeded, the system 10 computes the late fee charges payable 85 by the buyer 7. If the computed amount is below the deposited amount, the system 10 deducts the computed amount from the locked away virtual money. The remaining locked away virtual money for this contract is returned 86 to the buyer 7. If the computed amount exceeds the deposited amount, the system 10 deducts the full deposited amount from the locked away virtual money.

Accept offer to sell goods or services process

Figure 8 depicts the process to accept an offer to sell goods 37. In this process, the buyer 7 is the offeror and the seller 8 is the acceptor. There are two phases in the process. The first phase is initiated by the acceptor while the second phase is initiated by the buyer.

Both the buyer 7 and seller 8 negotiate the trade 70. The seller 8 waits for the notification 91 of offer from the system 10, which the buyer initiates 72. After receiving the notification, the seller 8 reviews 92 the offer. This is the beginning of the first phase. Reviewing 92 the offer checks whether the details match what was negotiated. Some of the details include:

- The description of goods to sell
- The quantity of goods to sell
- The amount of virtual money in exchange for the amount of goods as specified above
- The period in which the offer is valid until, namely the 'offer period'
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the 'trade completion deadline'
- The userref reference string (optional) for the offer.

If a late fee applies, then the following parameters are also included:

- The maximum amount of payable late fee charge
- Parameters used to compute a payable late fee

After reviewing 92 the details of the offer, the seller 8 decides 93 whether to accept the offer. If the seller 8 chooses not to accept the offer, the process is aborted 94.

If the seller accepts the offer, the system 10 computes 95 the amount of virtual money that needs to be locked away from the seller's virtual money account. The amount of virtual money to be locked away is the sum of the following components. The first component is the service fee charged by the system 10 against the seller for facilitating the trading process. If a late fee applies, then there is a second component of a maximum payable late fee. Late fee charges are computed and charged against this account if the trade deal takes longer than the time permitted under the 'trade completion deadline' to complete.

The system 10 locks away 96 the amount of virtual money computed from the seller's virtual money account. The locking away 96 of virtual money fails if there is insufficient virtual money in the virtual money account. If the locking away fails, the current process of forming a trade deal is aborted 94. If the locking away succeeds, the process initiates step 73 for the buyer 7. The processing at the buyer's end returns control to the seller process 98.

The system 10 checks 99 to see if the processing at the buyer's end has been successful in forming the contract. If the outcome is negative, the system 10 returns 100 the virtual money locked away. The process then aborts 94. If the outcome is positive, the system 10 informs 101 the seller 8 that a contract has been formed via email. The email provides the seller 8 with contact information of the buyer 7 so as to allow them to co-ordinate the completion of trade deal. It also serves as a reminder to the seller 8 to deliver the goods. The first phase ends 101.

The delivery 102 of goods is outside the control of the process. However, there is no incentive for the seller to breach the contract since the buyer can always suspend payment or even to raise a dispute should the seller fail to fulfill his/her obligations. After delivery 102 of goods, the seller 8 waits to receive the virtual money. The actual timing of the receipt of virtual money is controlled by the buyer 7.

The second phase starts when the buyer releases 103 the virtual money to seller at step 82. The system 10 receives 104 the service fee for the trade. This amount is taken from the virtual money that was locked away 96.

If a late fee applies, the system 10 checks 105 to see if the buyer 7 has been late in acknowledging the receipt of goods. That is, whether the buyer 7 has exceeded the time given in the contract parameter 'trade completion deadline'. If the deadline has not been exceeded, the remaining locked away virtual money for this contract is returned 107 to the seller.

If the deadline has been exceeded, the system 10 computes the late fee charges payable 106 by the seller. If the computed amount is below the deposited amount, the system 10 deducts the computed amount from the locked away virtual money. The remaining locked away virtual money for this contract is returned 107 to the

seller. If the computed amount exceeds the deposited amount, the system 10 deducts the full deposited amount from the locked away virtual money.

Offer to sell goods process

Figure 9 depicts the process for an offer to sell goods 38. In this process, the seller 8 is the offeror and the buyer 7 is the acceptor. There are three phases in the process. The first phase is initiated by the seller 8. The second and third phases are initiated by the buyer 7.

Both the seller 8 and the buyer 7 negotiate 110 the trade. This is conducted externally from the system 10. The negotiation phase covers a wide range of scenarios.

The terms and conditions of the trade deal that is agreed includes the following parameters:

- The quantity as well as the description of goods.
- The amount of virtual money in exchange for the amount of goods as specified above.
- The period in which the offer is valid until, namely the offer period.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the trade completion deadline.

If a late fee applies, then the following parameters are also included:

- The maximum amount of a payable late fee charge
- Parameters used to compute a payable late fee.

Other terms and conditions that should be agreed upon include:

- The delivery method.
- Warranty and after sale service to be undertaken by the seller.
- Dispute resolution.

Following successful negotiation 110, the offeror 8 specifies 111 the following parameters to the system 10:

- That it is a sell offer (an offer to sell goods for virtual money).
- The description of goods to sell.
- The quantity of goods to sell.
- The amount of virtual money in exchange for the amount of goods as specified above.

- The period in which the offer is valid until, namely the ‘offer period’.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the ‘trade completion deadline’.
- A (optional) reference string for the offer, namely the “userref”.

If a late fee applies, then the following parameters are also included:

- The maximum amount of a payable late fee charge
- Parameters used to compute a payable late fee

After an offer is successfully made, the system 10 notifies 112 the potential buyer via email. The offeror cannot do anything except to wait for the acceptor 7 to accept 113 the offer.

The second phase starts when the buyer 7 accepts 113 the offer. Note that the buyer has the right not to accept the offer and let it lapse. If the offer is accepted, the system 10 checks that the offer has not timed out 114. This is based on the parameter “offer period” as set by the offeror. If at the point of acceptance the offer has already timed out, the system 10 invalidates the offer and aborts 115 the process.

The system 10 computes 116 the amount of virtual money that needs to be locked away from the seller’s virtual money account for the transaction. The amount of virtual money to be locked away is the sum of the following components. The first component is the service fee charged by the system 10 against the seller 8 for facilitating the trading process. If a late fee applies, then there is a second component of a maximum payable late fee. Late fee charges are computed and charged against this account if the trade deal takes longer than the time permitted under the ‘trade completion deadline’ to complete.

The system 10 locks away 117 the amount of virtual money computed from the seller’s virtual money account. The locking away of virtual money fails if there is insufficient virtual money in the virtual money account. If the locking away fails, the current process of forming a trade deal is aborted and the buyer is informed 118. However, the offer is still valid.

The system 10 successfully locks away 119 the required amount of virtual money. The system 10 informs the seller 8 that a contract has been formed via email. The

email provides the seller 8 with contact information of the buyer 7 so as to allow them to co-ordinate the completion of trade deal. It also serves as a reminder to the seller 8 to complete the trade deal. The second phase ends and returns 120 the control back to the acceptor 7.

The delivery 121 of goods is external to the control of the process. However, there is no incentive for the seller to try breach the contract since the buyer can always suspend payment or even to raise a dispute should the seller fail to fulfill his/her obligations.

After delivery 121 of goods, the seller receives 122 the virtual money. The actual timing of the receipt of virtual money is controlled by the buyer 7.

The third phase starts when the buyer releases 122 the virtual money to seller. The system 10 receives 123 the service fee for the trade. This amount is taken from the virtual money that was locked away.

If a late fee applies, the system 10 checks 124 to see if the buyer 7 has been late in acknowledging the receipt of goods. That is, whether the buyer has exceeded the time given in the contract parameter ‘trade completion deadline’. If the deadline has not been exceeded, the remaining locked away virtual money for this contract is returned 126 to the seller. If the deadline has been exceeded, the system 10 computes the late fee charges payable 125 by the seller 8. If the computed amount is below the deposited amount, the system 10 deducts the computed amount from the locked away virtual money. The remaining locked away virtual money for this contract is returned 126 to the seller. If the computed amount exceeds the deposited amount, the system 10 deducts the full deposited amount from the locked away virtual money.

Accept offer to buy goods process

Figure 10 depicts the process to accept an offer to buy goods 39. In this process, the seller 8 is the offeror and the buyer 7 is the acceptor. There are two phases in this process. The first and second phases are initiated by the buyer 7.

Both the buyer 7 and seller 8 negotiate 110 the trade. This step is conducted externally from the system 10. The buyer 7 waits for the notification 131 of offer from the system 10, which the seller triggered off 112. After receiving the

notification, the buyer 7 reviews 132 the offer to see if the details matched what was negotiated. Some of the details include:

- The description of goods to buy.
- The quantity of goods to buy.
- The amount of virtual money in exchange for the amount of goods as specified above.
- The period in which the offer is valid until, namely the 'offer period'.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the 'trade completion deadline'.
- The userref reference string (optional) for the offer.

If a late fee applies, then the following parameters are also included:

- The maximum amount of a payable late fee charge
- Parameters used to compute a payable late fee

After reviewing 132 the details of the offer, the buyer decides 133 whether to accept the offer. If the buyer chooses not to accept the offer, the process is aborted 134. If the buyer accepts the offer, the system 10 computes 135 the amount of virtual money that needs to be locked away from the buyer's virtual money account. The amount of virtual money to be locked away is the sum of the following components. The first component is the amount of virtual money to pay to the seller when the deal is completed. The second component is the service fee charged by the system 10 against the buyer for facilitating the trading process. If a late fee applies, then there is a third component of a maximum payable late fee. Late fee charges are computed and charged against this account if the trade deal takes longer than the time permitted under the 'trade completion deadline' to complete.

The system 10 locks away 136 the amount of virtual money computed from the buyer's virtual money account. The locking away 136 of virtual money fails if there is insufficient virtual money in the virtual money account. If the locking away fails, the current process of forming a trade deal is aborted 134. If the locking away 137 succeeds, step 113 is initiated for the seller 8. The processing at the seller's end returns 138 control to the buyer process.

The system 10 checks 139 to see if the processing at the seller's end has been successful in forming the contract. If the outcome is negative, the system 10

returns 140 the virtual money locked away. The process then aborts 134. If the outcome is positive, the system 10 informs 141 the buyer 7 that a contract has been formed via email. The email provides the buyer 7 with contact information of the seller 8 so as to allow them to co-ordinate the completion of trade deal. It also serves as a reminder to the buyer 7 to complete the trade deal.

If a trade proceeds without problems, the buyer 7 receives the goods 142 and acknowledges 143 the goods. Alternatively, the system 10 may be configured such that it will release the virtual money to the seller 8 if the buyer 7 does not suspend or dispute the trade within the timeframe provided in the trade completion deadline. The virtual money is released 144 to the seller 8. This amount is taken from the virtual money that was locked away. The system 10 receives 145 the service fee for the trade. This amount is taken from the virtual money that was locked away.

If a trade encounters difficulty, the buyer may suspend payment 149.

If a late fee applies, the system 10 checks 146 to see if the buyer 7 has been late in acknowledging the receipt of goods. That is, whether the buyer 7 has exceeded the time given in the contract parameter ‘trade completion deadline’. If the deadline has not been exceeded, the remaining locked away virtual money for this contract is returned 148 to the buyer 7. If the deadline has been exceeded, the system 10 computes the late fee charges payable 147 by the buyer 7. If the computed amount is below the deposited amount, the system 10 deducts the computed amount from the locked away virtual money. The remaining locked away virtual money for this contract is returned 148 to the buyer 7. If the computed amount exceeds the deposited amount, the system 10 deducts the full deposited amount from the locked away virtual money.

Suspension of payment

Referring to Figure 18, a buyer may suspend payment when the buyer does not receive the goods or the goods received are not to the satisfaction of the buyer. The seller is notified of the suspension 281. The seller may proceed to re-propose a new offer to buyer 283 or to raise a trade dispute 287. A new offer includes any one of a proposal to refund (partial or otherwise), an extension of trade completion deadline or other relevant conditions that may be demanded by the buyer.

Upon receiving the re-proposal, the buyer may decide to either accept the new offer or reject it 284. If the buyer accepts the new offer, the buyer will wait for the delivery of goods at either 80 (If buyer suspends payment at 87) or 142 (If buyer suspends payment at 149) once again. If the buyer rejects the new offer, the buyer may decide to do nothing, in which case the process returns back to 281 and the seller has a chance to re-propose another offer. Alternatively, the buyer may choose to lodge a dispute 287.

A dispute is raised by either seller 282 or buyer 286. A dispute involves a neutral third party to decide on the merits on the dispute and to resolve the payment deadlock. To discourage over reliance of using the dispute process, the system imposes administrative fees on both parties. The administrative fee encourages the parties to resolve the issues between themselves first and only proceeds with a formal dispute procedure when necessary.

Advertise offer to buy/sell real money process

Figure 17 depicts the process for an advertisement offer to buy or sell real money 32. There are three separate phases in the process. The first phase is when a user advertises an offer to buy or sell real money. The user in the first phase is user A. The second phase is when a user queries the system 10 for advertisements on offers to buy or sell real money. The user in the second phase is user B. The third phase is when user B and user A negotiates and come to an agreement to trade real money in exchange for virtual money.

The first phase starts at step 250. At step 250, user A advertises his or her intention to buy or sell real money. User A enters the following parameters into the system 10:

- The offer type. That is, whether it is a buy or sell offer for real money.
- The country domain the advertisement is valid for.
- The type of emoney.
- The range of emoney that this advertisement is valid for.
- The type of real money.
- The exchange rate of real money to emoney.
- Administrative fee for the trade.
- The period in which the advertisement offer is valid until.
- The period of time in which the trade deal must be completed once the deal has been accepted, namely the trade completion deadline.

- Contact and delivery profile

If a late fee applies, then the following parameters are also included:

- The maximum percentage of a payable late fee charge
- Late fee rate payable per day

A contact and delivery profile is a list of contact or delivery related information that provides sufficient information for the users to make the actual delivery.

To prevent abuse, information is securable according to two different security levels. Information that is secured according to the first security level is made available during offer queries. This means that any user who makes queries is able to view the contact information. For example, information that is secured according to the first security level includes the phone number of user A. Information that is secured according to the second security level is made available only after the contract has been formed. For example, information secured according to the second security level includes the bank account number of user A.

An example of an advertisement offer to buy/sell real money is shown in Figure 14. An example of a contact and delivery profile is shown in Figure 15.

User A proceeds to post the offer in the marketplace at step 251. The marketplace holds all the posted offers where other users of the payment system are able to view them. The posting of the offer is the end of the first phase. To prevent clogging up of the marketplace, all advertised offers have expiry periods.

The second phase starts at step 252 when user B queries for suitable offers. User B does this by asking the system 10 to filter suitable advertisement offers that are currently in the marketplace, based on the selection criterion that user B inputs into the system 10. User B is able to repeat this until he or she is satisfied with the query results.

The following parameters are used to narrow down the suitable advertised offers for user B:

- The offer type. That is, whether it is a buy or sell offer for real money.
- The country domain the advertisement is valid for.
- The type of emoney.

- The amount of emoney to trade.
- The type of real money.
- Exchange rate
- If a late fee applies, the maximum percentage of a payable late fee charge.

An example of a query for an advertisement offer to buy/sell real money is shown in Figure 16.

The third phase starts at step 254 when user B negotiates with user A based on the query results that was obtained in step 253. When both parties are satisfied with the trading details, either party can formally initiate the trade by making an offer to the counter party. If user A is the party that makes the offer and it is a buy offer, then user A proceeds to step 71 and user B proceeds to step 91. If user B is the party that makes the offer and it is a buy offer, then user B proceeds to step 71 and user A proceeds to step 91. If user A is the party that makes the offer and it is a sell offer, then user A proceeds to step 111 and user B proceeds to step 131. If user B is the party that makes the offer and it is a sell offer, then user B proceeds to step 111 and user A proceeds to step 131.

Buying virtual money from issuer process

Figure 11 depicts the process to buy virtual money directly from the virtual money issuer. The process makes use of wire transfer (WT) to transfer real money from the user to the virtual money issuer. As the bank charges for WT are significant for small sums, this process is commonly used by brokers or users whom wish to make large purchase of virtual money.

The user initiates a request 230 to the system 10 to buy virtual money from the issuer. The system 10 generates 231 a reference string. The system 10 ensures that the reference string is unique. The system 10 tags relevant information such as the account number of the user to the reference string. Next, the system 10 provides the user with general instructions on how to send the real money to the issuer. The user also receives information on the various parameters that are needed to send the real money to the issuer. These include the reference string, the issuer's bank account particulars, including the bank account number, the name of the beneficiary, the address of the beneficiary, the bank name of the beneficiary, the address of the beneficiary bank, the country the bank account is in and any other information that might be relevant.

The system 10 informs 236 the issuer of the request to buy virtual money. The issuer is also informed of the virtual money account number of the user. The user initiates 232 the wire transfer of fund to the issuer. The user provides the reference number in the comment field in the wire transfer application. The actual steps of the wire transfer are not part of the process.

The issuer receives 233 the money coming in through the wire transfer. The issuer compares 234 the reference number from the wire transfer to the list of pending requests. If there is a match, the issuer issues new virtual money 235 to be deposited into the user's virtual money account. The reference number is removed from the pending requests.

Selling virtual money to issuer process

Figure 12 depicts the process to sell virtual money directly to the virtual money issuer 31. The process makes use of wire transfer (WT) to transfer real money from the virtual money issuer to the user. As the bank charges for WT can be significant for small sums, this process is typically used by brokers 9 or users who wish to make large sale of virtual money.

The user initiates a request 240 to the system 10 to sell virtual money to the issuer. The user provides the following information to the system 10: user's (beneficiary) bank account number, the name of the beneficiary, the address of the beneficiary, the bank name of the beneficiary, the address of the beneficiary bank, the country the bank account is in and any other information that might be relevant. All these information are needed by the issuer to deliver the real money to the user. The user indicates the amount of virtual money that he intends to sell back to the issuer.

The system 10 deducts 241 the virtual money from the user's virtual money account. The system 10 checks 242 to see if the deduction has been successful. If the deduction is not successful, the process fails and aborts 243. If the deduction is successful, the issuer is informed 244 of the sale of virtual money.

The issuer performs 245 a wire transfer to the user. The amount to transfer is the amount of virtual money the user has sold, minus all the relevant bank charges for

the wire transfer and foreign currency charges if any. The user receives 246 the funds.

It will be appreciated by persons skilled in the art that numerous variations and/or modifications may be made to the invention as shown in the specific embodiments without departing from the scope or spirit of the invention as broadly described. The present embodiments are, therefore, to be considered in all respects illustrative and not restrictive.

WE CLAIM:

1. An electronic payment system for purchasing goods and services using virtual money, the system comprising:

a server to facilitate formation of a contract between a purchaser and a vendor, for purchasing goods or services in exchange for virtual money;

a virtual money reservation module to reserve a purchaser reservation amount in an account of the purchaser, the purchaser reservation amount being an amount of virtual money including a first portion to be paid to the vendor in exchange for the goods or services; and

a money release module to release the first portion of the purchaser reservation amount to the vendor after the goods or services are received by the purchaser;

wherein virtual money is a proxy for real money and convertible to real money having a legal tender.

2. The system according to claim 1, wherein virtual money includes an extension of credit from a credit card company, banks or financial institutions, or loans.

3. The system according to claim 1, further comprising a re-negotiation module to allow the terms of the contract to be re-negotiated.

4. The system according to claim 3, wherein virtual money is not refunded to the purchaser unless the vendor agrees to the refund explicitly as part of the re-negotiated terms.

5. The system according to claim 3, further comprising a dispute resolution module to resolve a dispute if re-negotiation fails.

6. The system according to claim 1, wherein the purchaser reservation amount includes a second portion to be paid as a late fee if the trade does not complete within a predetermined period of time.

7. The system according to claim 1, wherein the virtual money reservation module reserves a vendor reservation amount in an account of the vendor, the vendor reservation amount being an amount of virtual money.

8. The system according to claim 7, wherein the vendor reservation amount includes a first portion to be paid as a late fee if the trade does not complete within the predetermined period of time.

9. The system according to claims 6 or 8, wherein if the trade is completed within the predetermined period of time, the late fee is refunded to the vendor and purchaser.

10. The system according to claim 1, wherein a late fee is paid only when the trade does not complete within a predetermined period of time.

11. The system according to claim 1, wherein the virtual money reservation module and money release module are executed by an application server.

12. The system according to claim 11, further comprising an authentication module to authenticate and validate the vendor and purchaser.

13. The system according to claim 12, wherein an authenticated user receives an application cookie to enable the authenticated user to securely communicate with the application server.

14. The system according to claim 1, wherein an issuer creates new virtual money when a user buys virtual money from the issuer in exchange for real money.

15. The system according to claim 1, wherein an issuer destroys virtual money when a user sells virtual money to the issuer.

16. The system according to claim 1, further comprising an electronic marketplace to enable users to browse goods or services offered for sale or purchase.

17. The system according to claim 16, wherein the electronic marketplace is a set of user interfaces within the electronic payment system.

18. A computer-implemented method for purchasing goods or services using virtual money, the method comprising:

forming a contract between a purchaser and a vendor for purchasing goods or services in exchange for virtual money;

reserving a purchaser reservation amount in an account of the purchaser, the purchaser reservation amount being an amount of virtual money including: a first portion to be paid to the vendor in exchange for the goods or services; and

releasing the first portion of the purchaser reservation amount to the vendor after the goods or services are received by the purchaser;

wherein virtual money is a proxy for real money and convertible to real money having a legal tender.

19. The method according to claim 18, wherein virtual money includes an extension of credit from a credit card company, banks or financial institutions, or loans.

20. The method according to claim 18, further comprising re-negotiating the terms of the contract between the vendor and purchaser.

21. The method according to claim 20, wherein virtual money is not refunded to the purchaser unless the vendor agrees to the refund explicitly as part of the re-negotiated terms.

22. The method according to claim 21, further comprising resolving disputes between the purchaser and vendor if re-negotiation fails.

23. The method according to claim 18, wherein the purchaser reservation amount includes a second portion to be paid as a late fee if the trade does not complete within a predetermined period of time.

24. The method according to claim 18, further comprise the step of reserving a vendor reservation amount in an account of the vendor, the vendor reservation amount being an amount of virtual money.

25. The method according to claim 24, wherein the vendor reservation amount includes a first portion to be paid as a late fee if the trade does not complete within the predetermined period of time.

26. The method according to claims 23 or 24, wherein if the trade is completed within the predetermined period of time, the late fee is refunded to the first and second parties.

27. The method according to claim 18, wherein the late fee is paid only when the trade does not complete within a predetermined period of time.

28. The method according to claim 18, wherein the purchaser reservation amount includes a third portion to be paid as a service fee to a service provider for facilitating the trade.

29. The method according to claim 18, wherein the vendor reservation amount includes a second portion to be paid as a service fee to a service provider for facilitating the trade.

30. The method according to claim 18, wherein the third portion of the purchaser reservation amount and the second portion of the vendor reservation amount are paid to the service provider after the first portion of the purchaser reservation amount is released to the vendor.

31. The method according to claim 18, wherein the contract includes any one of the following conditions:

an amount of the goods or services;

a description of the goods or services;

the amount of electronic money in exchange for the amount of goods or services;

the period in which the offer is valid;

the period in which the trade must be completed once the offer is accepted;

the maximum amount of a payable late fee charge

parameters used to compute a payable late fee

the method of delivering the goods or services;

the warranty and after-sales service provided by the vendor; or

dispute resolution policy.

32. The method according to claim 18, wherein the formation of the contract originates from the purchaser or the vendor.

33. The method according to claim 18, wherein the contract permanently fails if there are insufficient funds in the account of the purchaser for the purchaser reservation amount.

34. The method according to claim 18, wherein each unit of virtual money is supported by a corresponding unit of real money.

35. The system according to claim 1, wherein the goods or services is real money of any representation, of any delivery method.

36. The system according to claim 35, wherein real money includes cheques, bank drafts, wire transfers, or cash.

37. The method according to claim 18, wherein the goods or services is real money of any representation, of any delivery method.

38. The method according to claim 37, wherein real money includes cheques, bank drafts, wire transfers, or cash.