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(54) **INTEGRATING THIRD PARTY SHOPPING CART APPLICATIONS WITH AN ONLINE PAYMENT SERVICE**

(76) Inventor: **Katherine Woo**, San Francisco, CA (US)

Correspondence Address:
SCHWEGMAN, LUNDBERG, WOESSNER & KLUTH, P.A.
P.O. BOX 2938
MINNEAPOLIS, MN 55402 (US)

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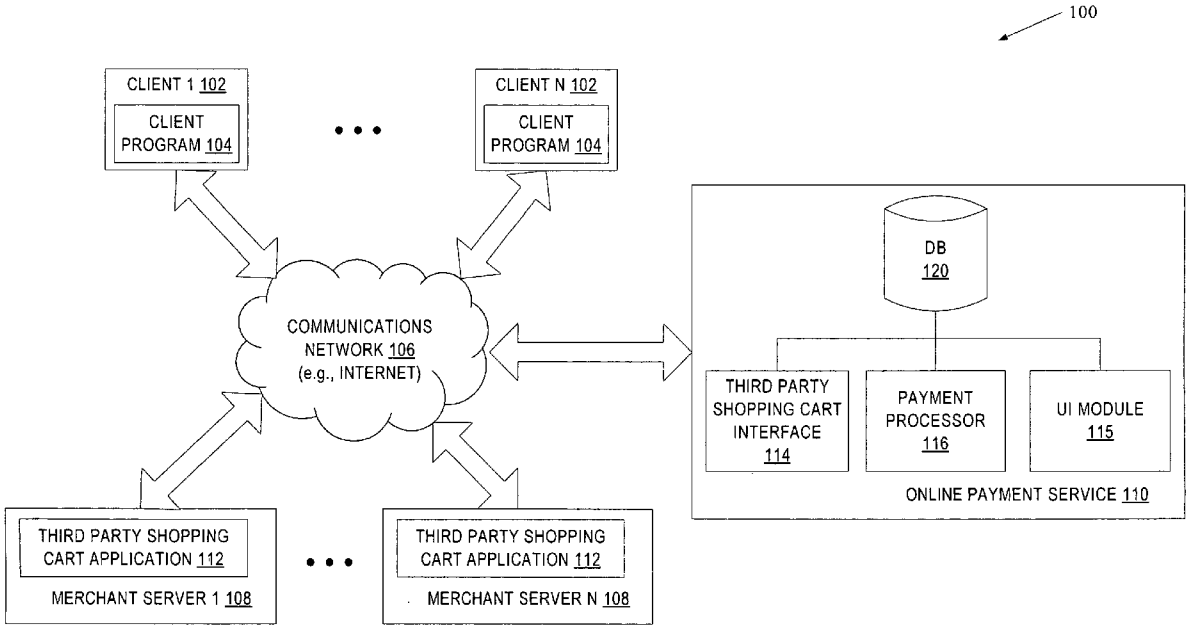
Publication Classification

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(52) **U.S. Cl.** **705/26**

(57) **ABSTRACT**

In one embodiment, detailed information concerning items placed by a user in a virtual shopping cart hosted by a merchant web site is received from a third party shopping cart application. The detailed information is sent by the third party shopping cart application in response to a user request to proceed with a payment for the items. Once the detailed information is received, the user is presented with one or more user interfaces facilitating processing of the payment. The user interfaces allow the user to view the content of the virtual shopping cart.



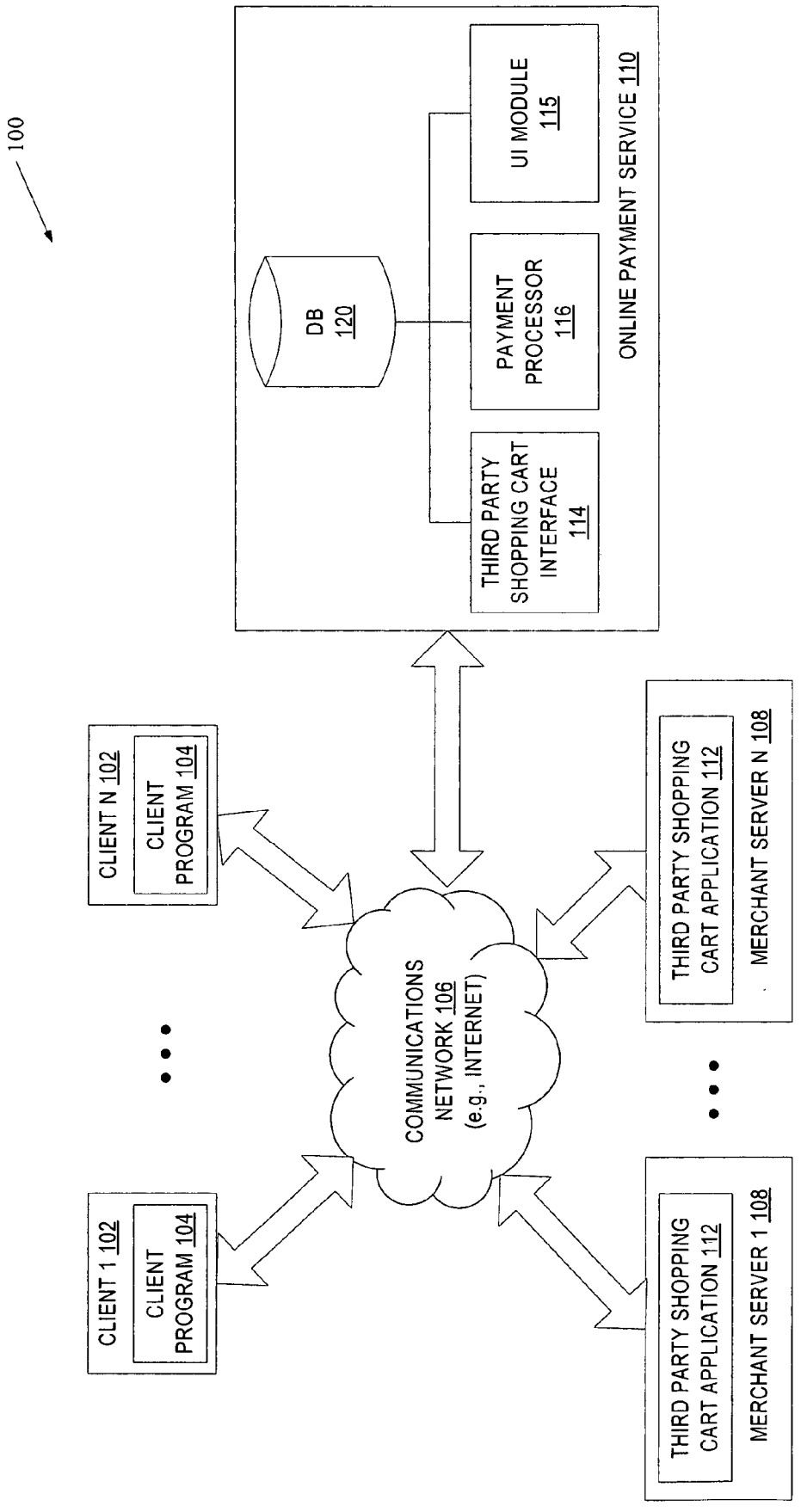

100
ONLINE PAYMENT SERVICE 110
UI MODULE 115
PAYMENT PROCESSOR 116
DB 120
THIRD PARTY SHOPPING CART INTERFACE 114
COMMUNICATIONS NETWORK 106 (e.g., INTERNET)
CLIENT 1 102
CLIENT PROGRAM 104
CLIENT N 102
CLIENT PROGRAM 104
THIRD PARTY SHOPPING CART APPLICATION 112
MERCHANT SERVER 1 108
THIRD PARTY SHOPPING CART APPLICATION 112
MERCHANT SERVER N 108

FIG. 1

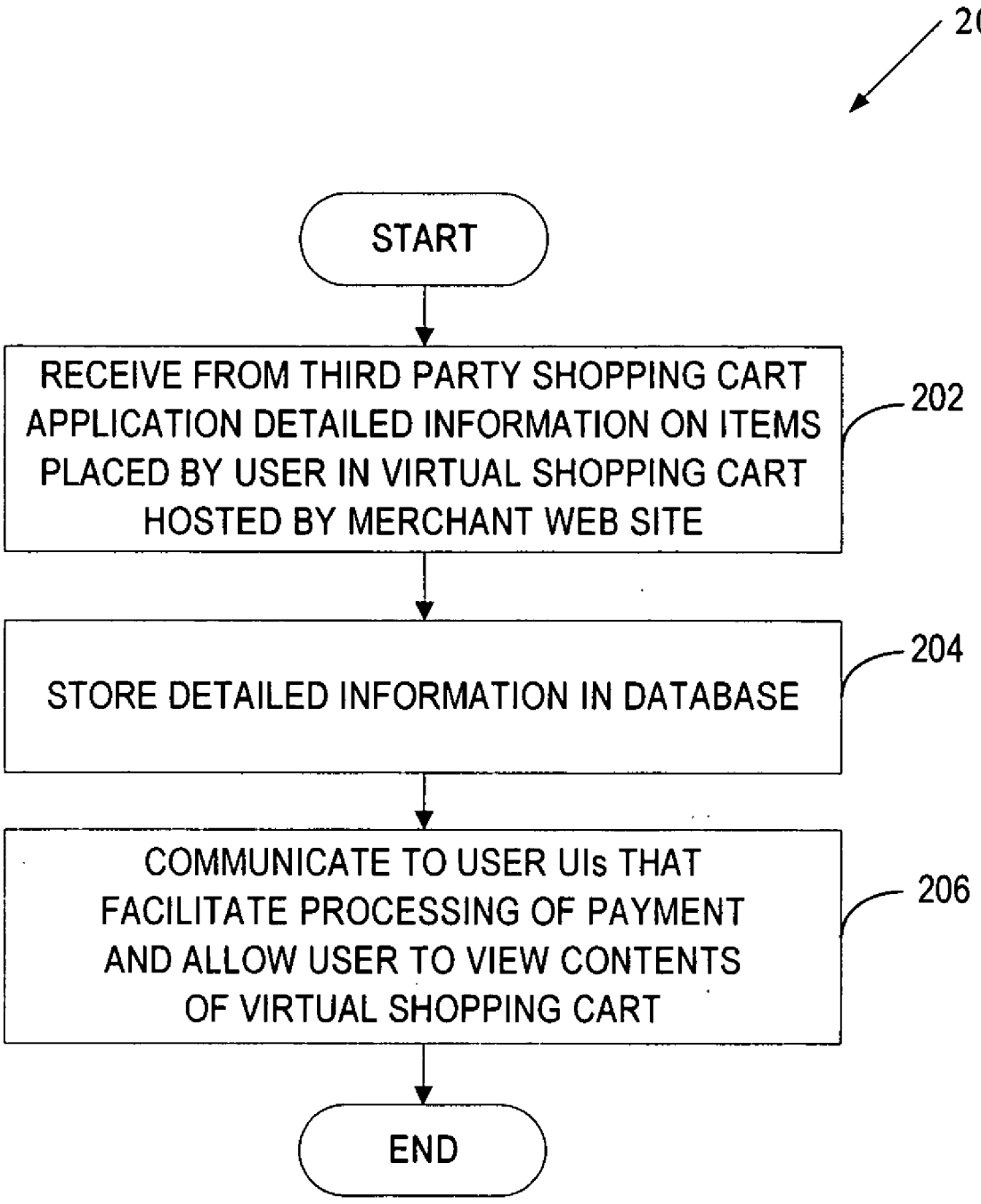

200
START
RECEIVE FROM THIRD PARTY SHOPPING CART APPLICATION DETAILED INFORMATION ON ITEMS PLACED BY USER IN VIRTUAL SHOPPING CART HOSTED BY MERCHANT WEB SITE
202
STORE DETAILED INFORMATION IN DATABASE
204
COMMUNICATE TO USER UIs THAT FACILITATE PROCESSING OF PAYMENT AND ALLOW USER TO VIEW CONTENTS OF VIRTUAL SHOPPING CART
206
END

FIG. 2

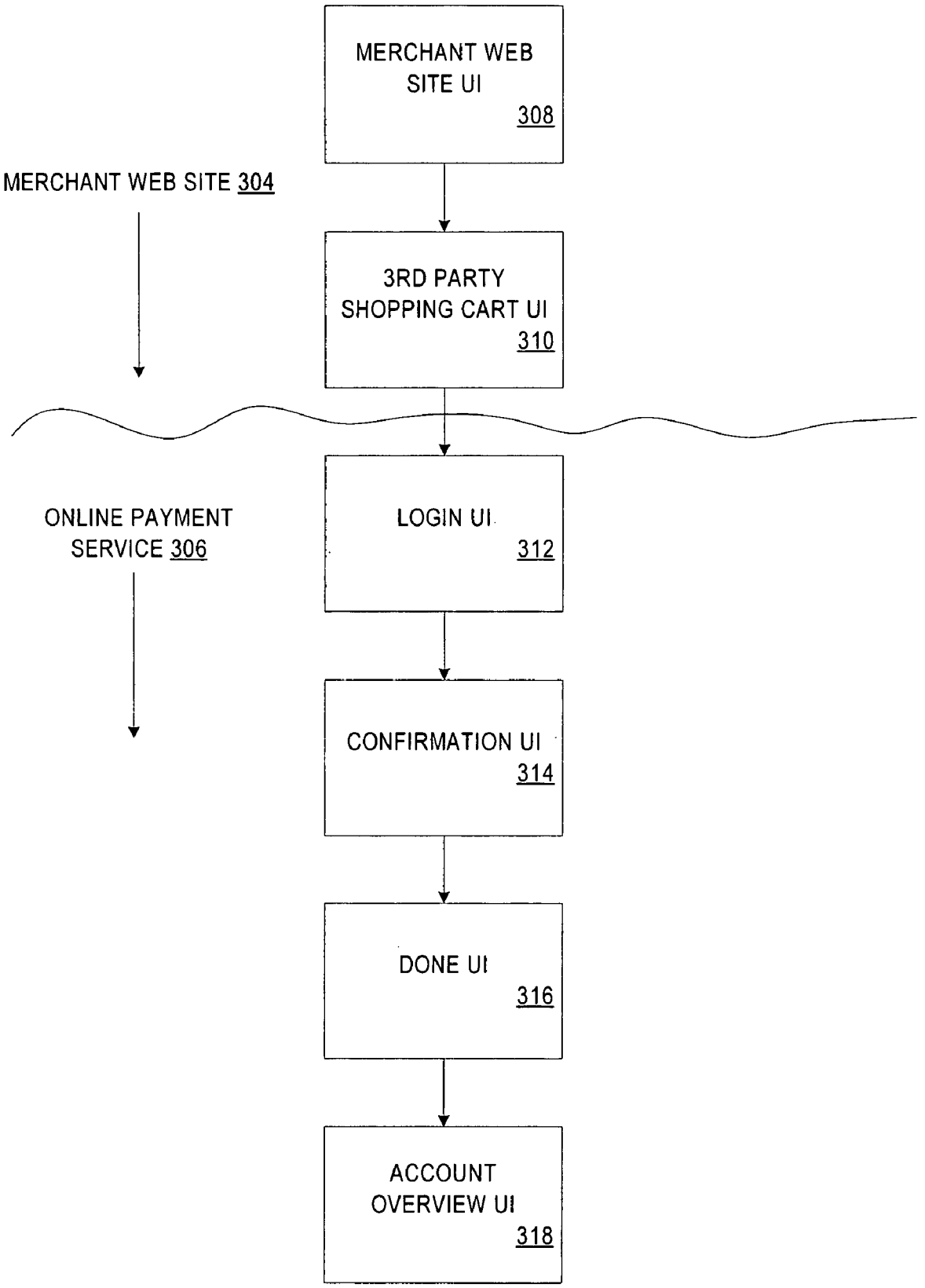

MERCHANT WEB SITE UI
308
MERCHANT WEB SITE 304
3RD PARTY SHOPPING CART UI
310
ONLINE PAYMENT SERVICE 306
LOGIN UI
312
CONFIRMATION UI
314
DONE UI
316
ACCOUNT OVERVIEW UI
318

FIG. 3

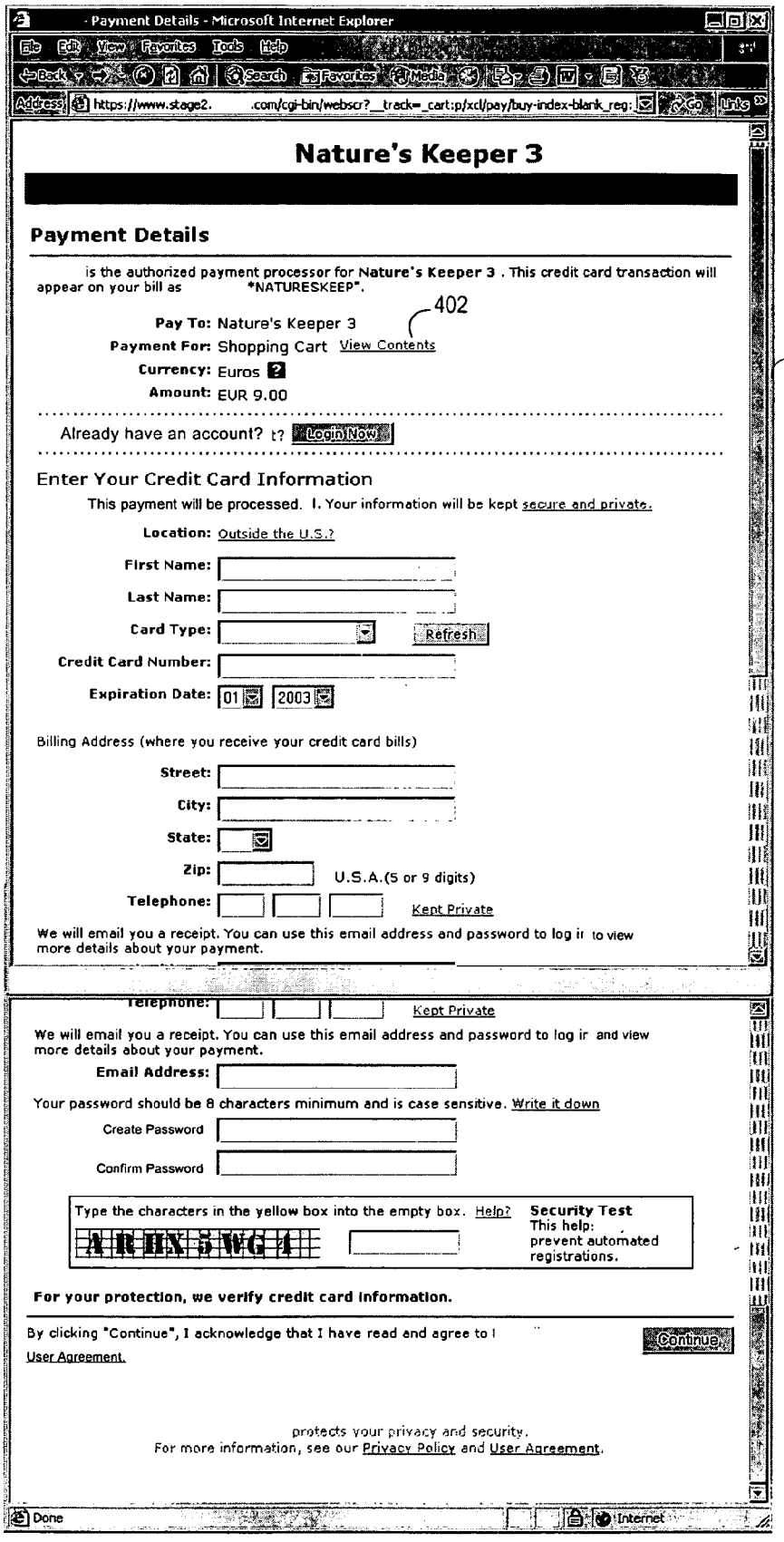

Payment Details - Microsoft Internet Explorer
Nature's Keeper 3
Payment Details
is the authorized payment processor for Nature's Keeper 3 . This credit card transaction will appear on your bill as *NATURESKEEP".
Pay To: Nature's Keeper 3
Payment For: Shopping Cart View Contents
Currency: Euros
Amount: EUR 9.00
Already have an account? t? Login Now
Enter Your Credit Card Information
This payment will be processed. I. Your information will be kept secure and private.
Location: Outside the U.S.?
First Name:
Last Name:
Card Type:
Refresh
Credit Card Number:
Expiration Date: 01 2003
Billing Address (where you receive your credit card bills)
Street:
City:
State:
Zip:
U.S.A.(5 or 9 digits)
Telephone:
Kept Private
We will email you a receipt. You can use this email address and password to log ir to view more details about your payment.
Telephone:
Kept Private
We will email you a receipt. You can use this email address and password to log ir and view more details about your payment.
Email Address:
Your password should be 8 characters minimum and is case sensitive. Write it down
Create Password
Confirm Password
Type the characters in the yellow box into the empty box. Help?
A RBX 5 WG 1
Security Test
This help: prevent automated registrations.
For your protection, we verify credit card information.
By clicking "Continue", I acknowledge that I have read and agree to I
Continue
User Agreement.
protects your privacy and security.
For more information, see our Privacy Policy and User Agreement.
Done
Internet
402
400

FIG. 4

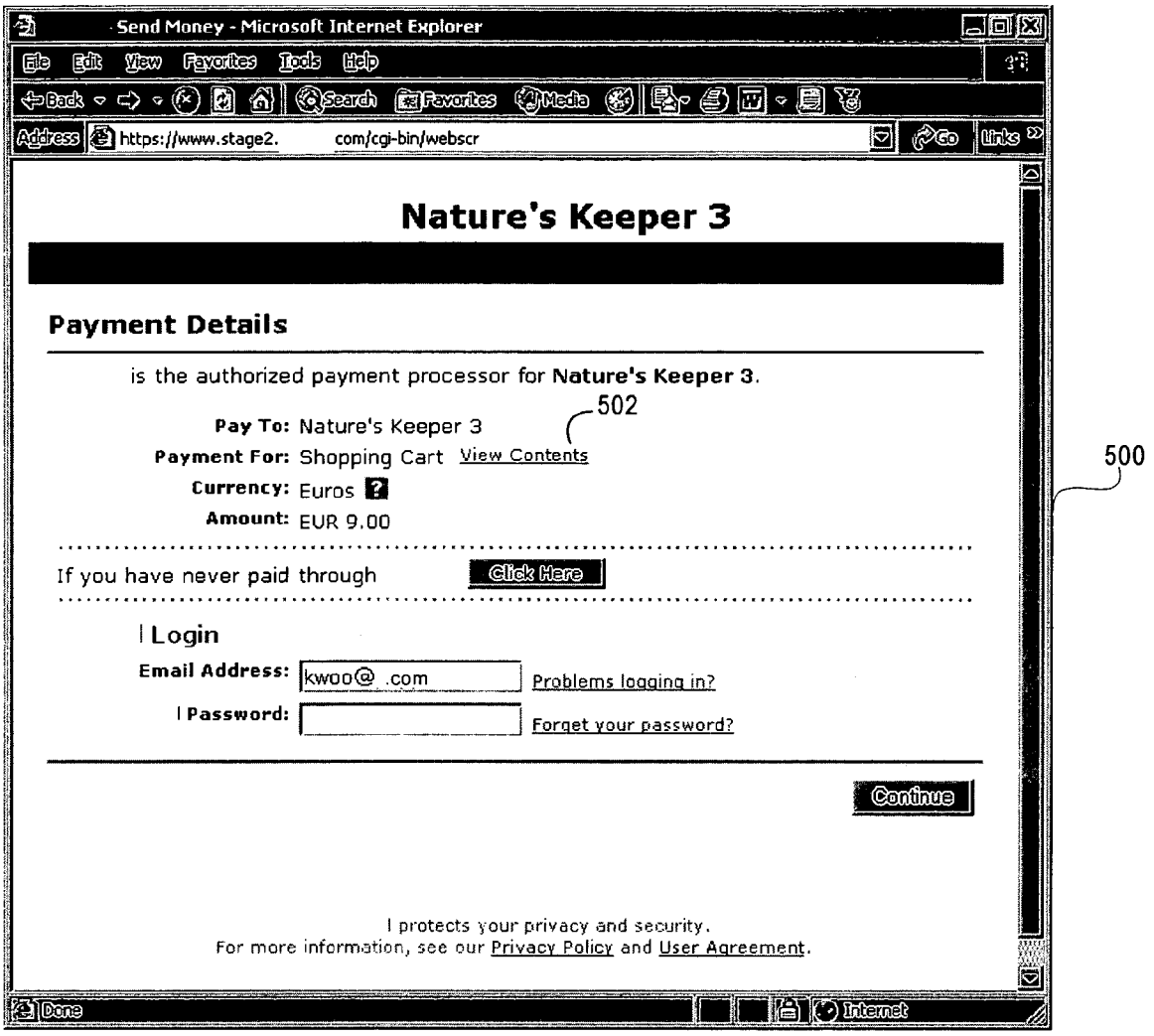

Send Money - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://www.stage2. com/cgi-bin/webscr
Go Links
Nature's Keeper 3
Payment Details
is the authorized payment processor for Nature's Keeper 3.
Pay To: Nature's Keeper 3
Payment For: Shopping Cart View Contents
Currency: Euros
Amount: EUR 9.00
If you have never paid through Click Here
Login
Email Address: kwoo@ .com
Problems logging in?
Password:
Forget your password?
Continue
protects your privacy and security.
For more information, see our Privacy Policy and User Agreement.
Done
Internet
502
500

FIG. 5

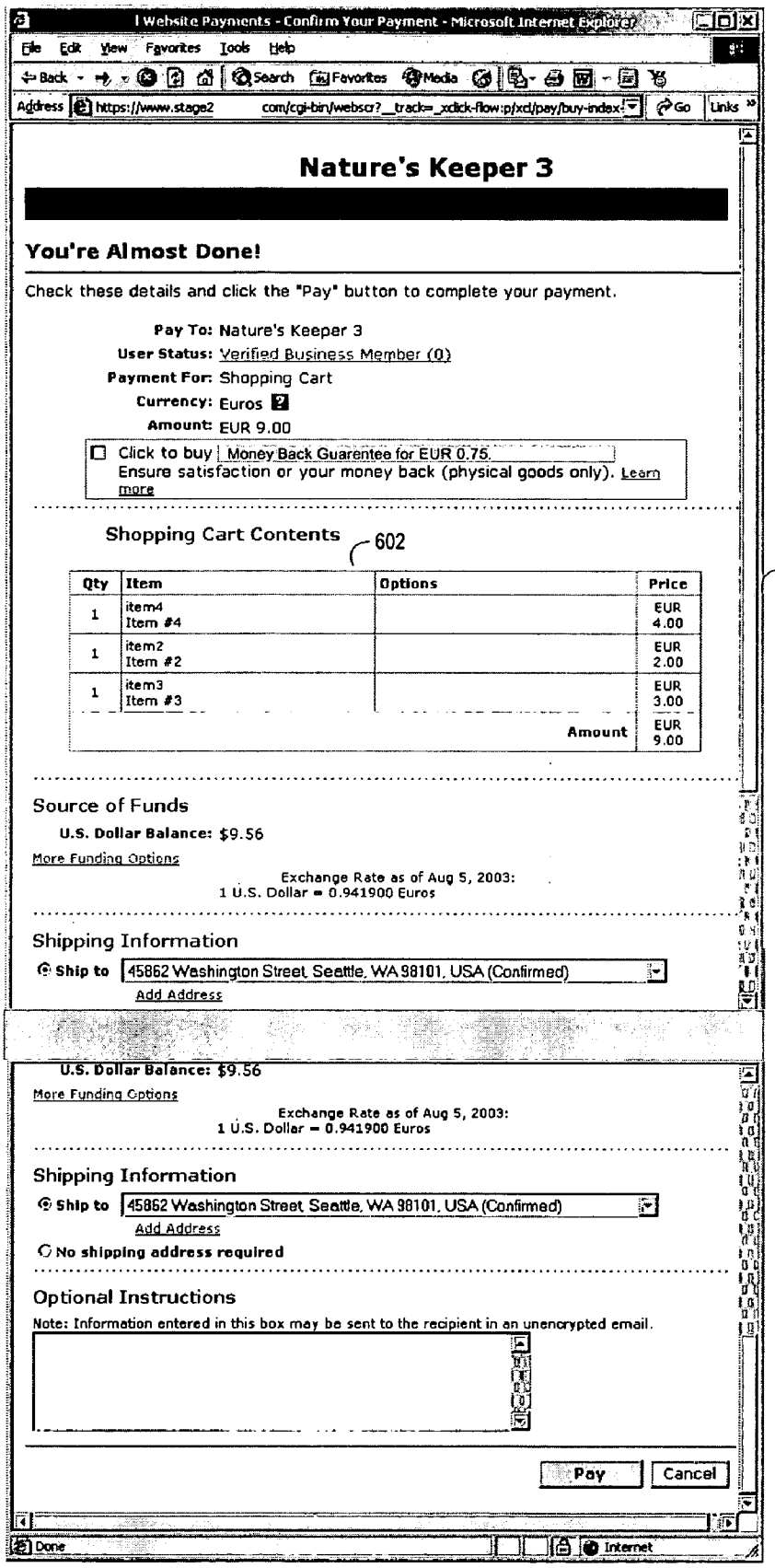

Website Payments - Confirm Your Payment - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://www.stage2 com/cgi-bin/webscr?_track=_xclick-flow:p/xcl/pay/buy-index:
Go Links
Nature's Keeper 3
You're Almost Done!
Check these details and click the "Pay" button to complete your payment.
Pay To: Nature's Keeper 3
User Status: Verified Business Member (0)
Payment For: Shopping Cart
Currency: Euros
Amount: EUR 9.00
Click to buy Money Back Guarentee for EUR 0.75.
Ensure satisfaction or your money back (physical goods only). Learn more
Shopping Cart Contents
602
600
Qty Item Options Price
1 item4 Item #4 EUR 4.00
1 item2 Item #2 EUR 2.00
1 item3 Item #3 EUR 3.00
Amount EUR 9.00
Source of Funds
U.S. Dollar Balance: $9.56
More Funding Options
Exchange Rate as of Aug 5, 2003:
1 U.S. Dollar = 0.941900 Euros
Shipping Information
Ship to 45862 Washington Street, Seattle, WA 98101, USA (Confirmed)
Add Address
U.S. Dollar Balance: $9.56
More Funding Options
Exchange Rate as of Aug 5, 2003:
1 U.S. Dollar = 0.941900 Euros
Shipping Information
Ship to 45862 Washington Street, Seattle, WA 98101, USA (Confirmed)
Add Address
No shipping address required
Optional Instructions
Note: Information entered in this box may be sent to the recipient in an unencrypted email.
Pay
Cancel
Done
Internet

FIG. 6

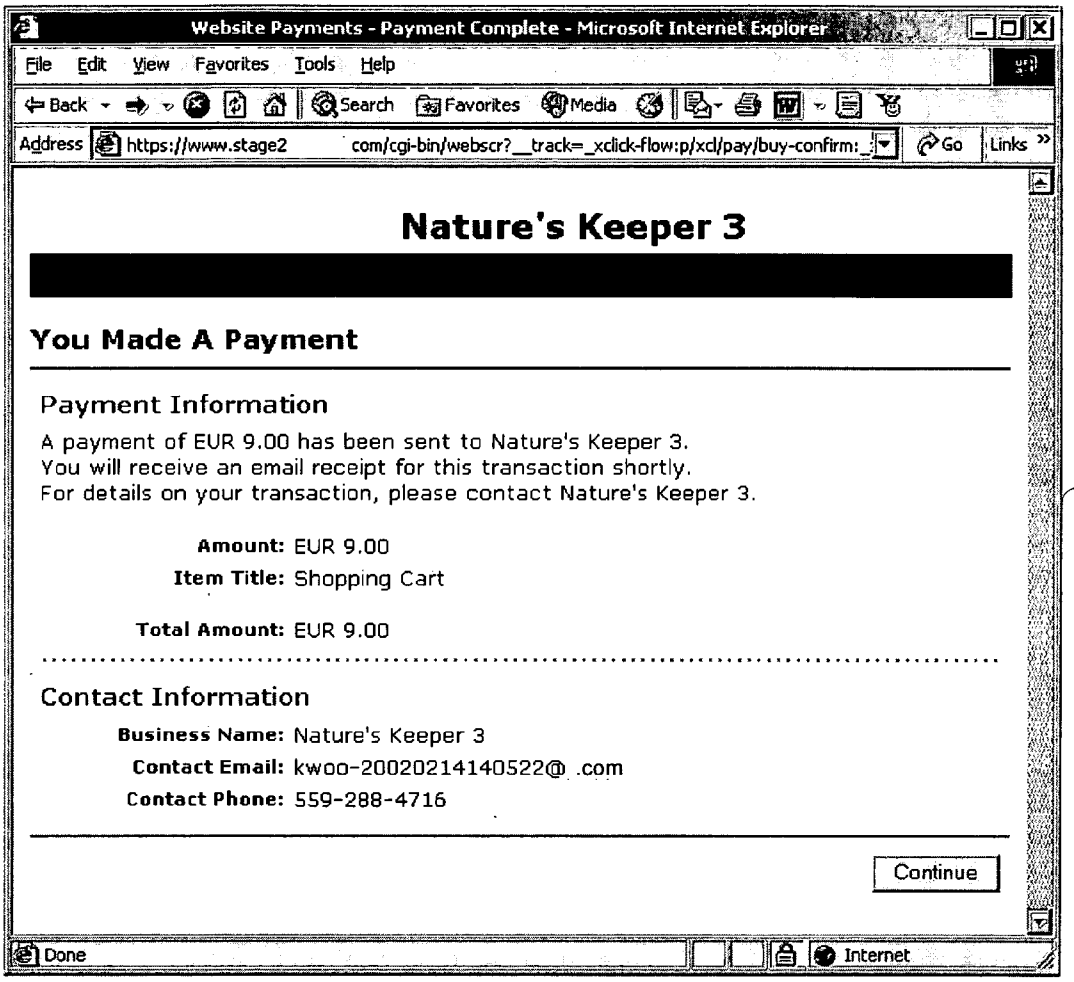

Website Payments - Payment Complete - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back Search Favorites Media
Address https://www.stage2 com/cgi-bin/webscr?_track=_xclick-flow:p/xcl/pay/buy-confirm: Go Links
Nature's Keeper 3
You Made A Payment
Payment Information
A payment of EUR 9.00 has been sent to Nature's Keeper 3.
You will receive an email receipt for this transaction shortly.
For details on your transaction, please contact Nature's Keeper 3.
Amount: EUR 9.00
Item Title: Shopping Cart
Total Amount: EUR 9.00
Contact Information
Business Name: Nature's Keeper 3
Contact Email: kwoo-20020214140522@ .com
Contact Phone: 559-288-4716
Continue
Done
Internet
700

FIG. 7

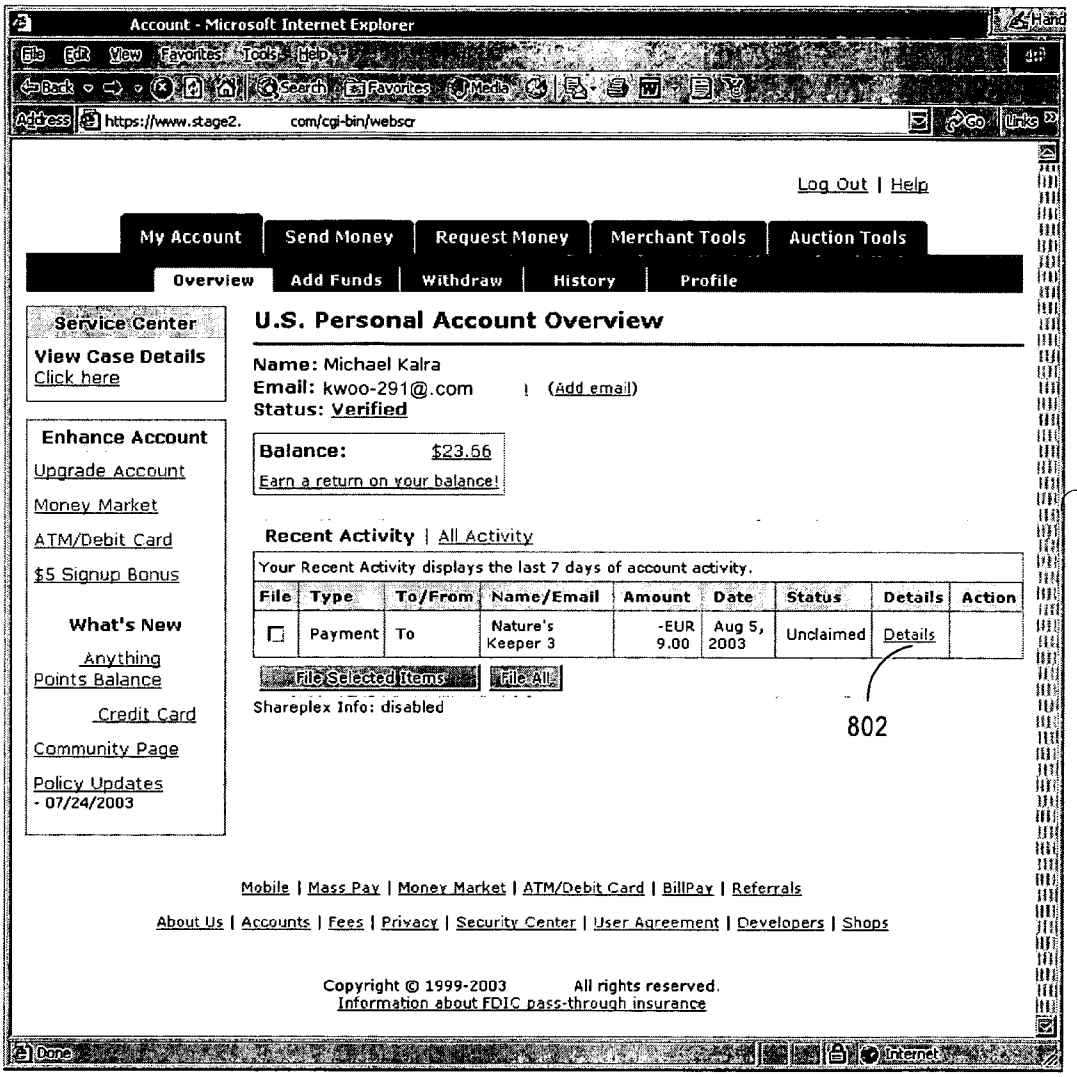

Account - Microsoft Internet Explorer
Log Out | Help
My Account
Send Money
Request Money
Merchant Tools
Auction Tools
Overview
Add Funds
Withdraw
History
Profile
Service Center
View Case Details
Click here
Enhance Account
Upgrade Account
Money Market
ATM/Debit Card
$5 Signup Bonus
What's New
Anything
Points Balance
Credit Card
Community Page
Policy Updates
- 07/24/2003
U.S. Personal Account Overview
Name: Michael Kalra
Email: kwoo-291@.com
(Add email)
Status: Verified
Balance: $23.56
Earn a return on your balance!
Recent Activity | All Activity
Your Recent Activity displays the last 7 days of account activity.
File
Type
To/From
Name/Email
Amount
Date
Status
Details
Action
Payment
To
Nature's Keeper 3
-EUR 9.00
Aug 5, 2003
Unclaimed
Details
File Selected Items
File All
Shareplex Info: disabled
Mobile | Mass Pay | Money Market | ATM/Debit Card | BillPay | Referrals
About Us | Accounts | Fees | Privacy | Security Center | User Agreement | Developers | Shops
Copyright © 1999-2003 All rights reserved.
Information about FDIC pass-through insurance
800
802

FIG. 8

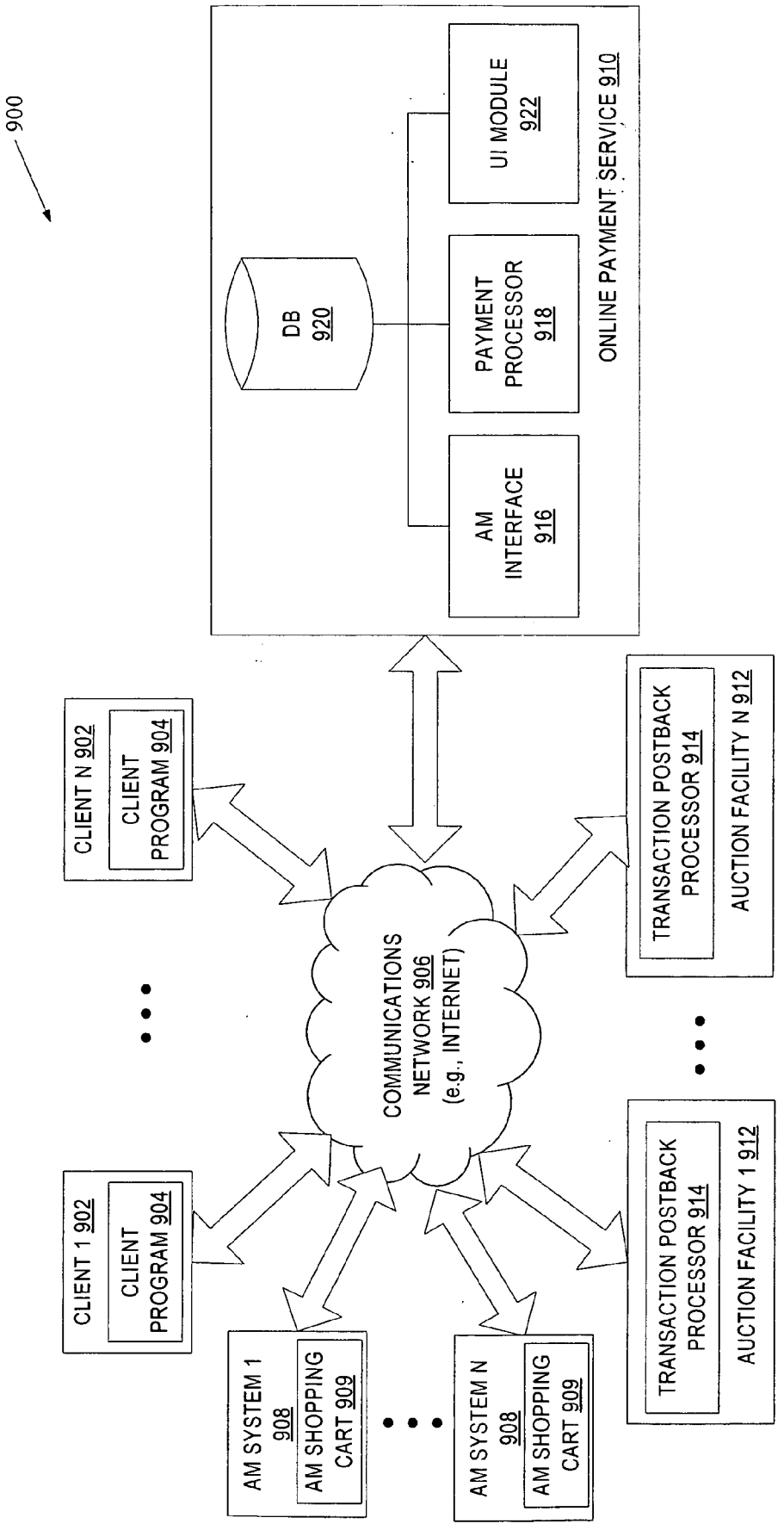

900
ONLINE PAYMENT SERVICE 910
UI MODULE 922
PAYMENT PROCESSOR 918
DB 920
AM INTERFACE 916
CLIENT N 902
CLIENT PROGRAM 904
CLIENT 1 902
CLIENT PROGRAM 904
COMMUNICATIONS NETWORK 906 (e.g., INTERNET)
AM SYSTEM 1 908
AM SHOPPING CART 909
AM SYSTEM N 908
AM SHOPPING CART 909
TRANSACTION POSTBACK PROCESSOR 914
AUCTION FACILITY N 912
TRANSACTION POSTBACK PROCESSOR 914
AUCTION FACILITY 1 912

FIG. 9

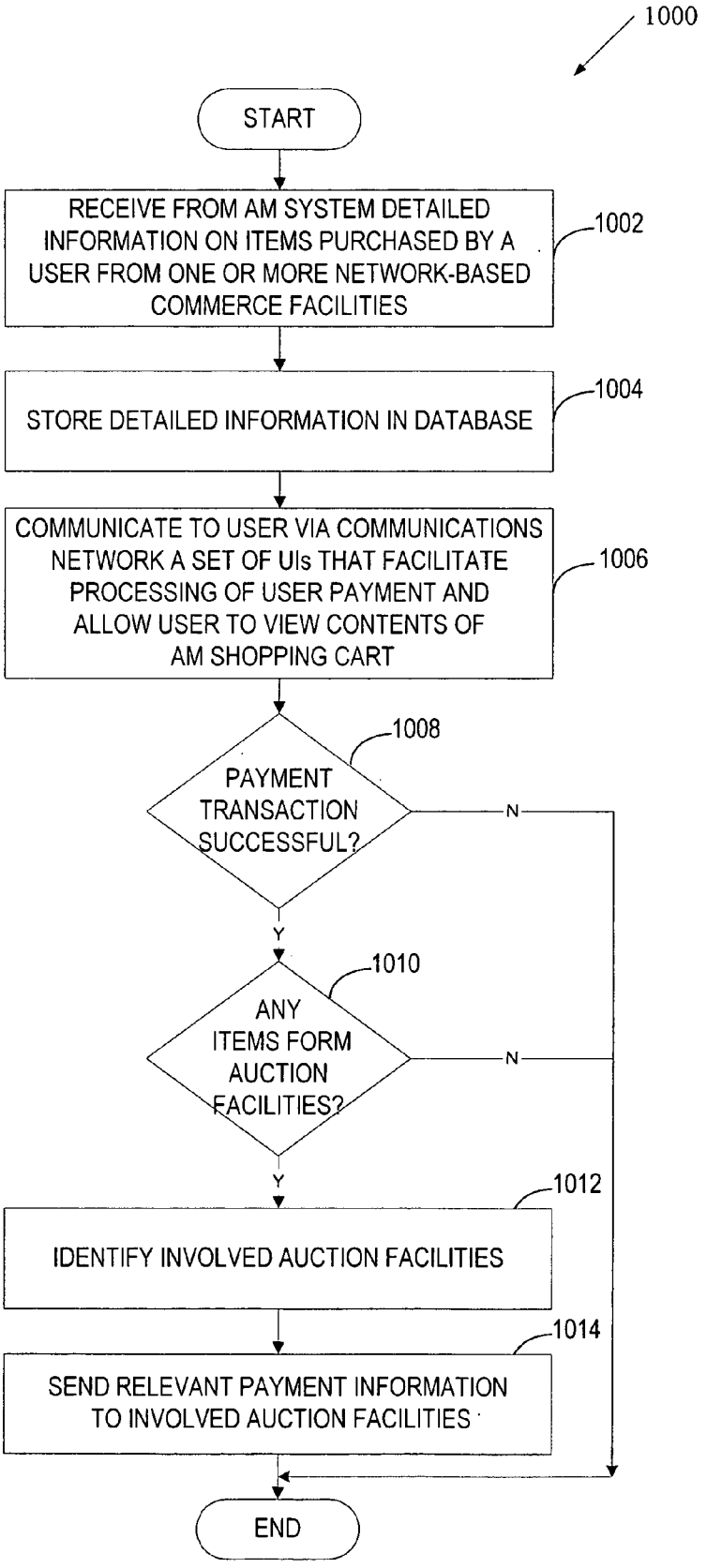

1000
START
RECEIVE FROM AM SYSTEM DETAILED INFORMATION ON ITEMS PURCHASED BY A USER FROM ONE OR MORE NETWORK-BASED COMMERCE FACILITIES
1002
STORE DETAILED INFORMATION IN DATABASE
1004
COMMUNICATE TO USER VIA COMMUNICATIONS NETWORK A SET OF UIs THAT FACILITATE PROCESSING OF USER PAYMENT AND ALLOW USER TO VIEW CONTENTS OF AM SHOPPING CART
1006
1008
PAYMENT TRANSACTION SUCCESSFUL?
N
Y
1010
ANY ITEMS FORM AUCTION FACILITIES?
N
Y
1012
IDENTIFY INVOLVED AUCTION FACILITIES
1014
SEND RELEVANT PAYMENT INFORMATION TO INVOLVED AUCTION FACILITIES
END

FIG. 10

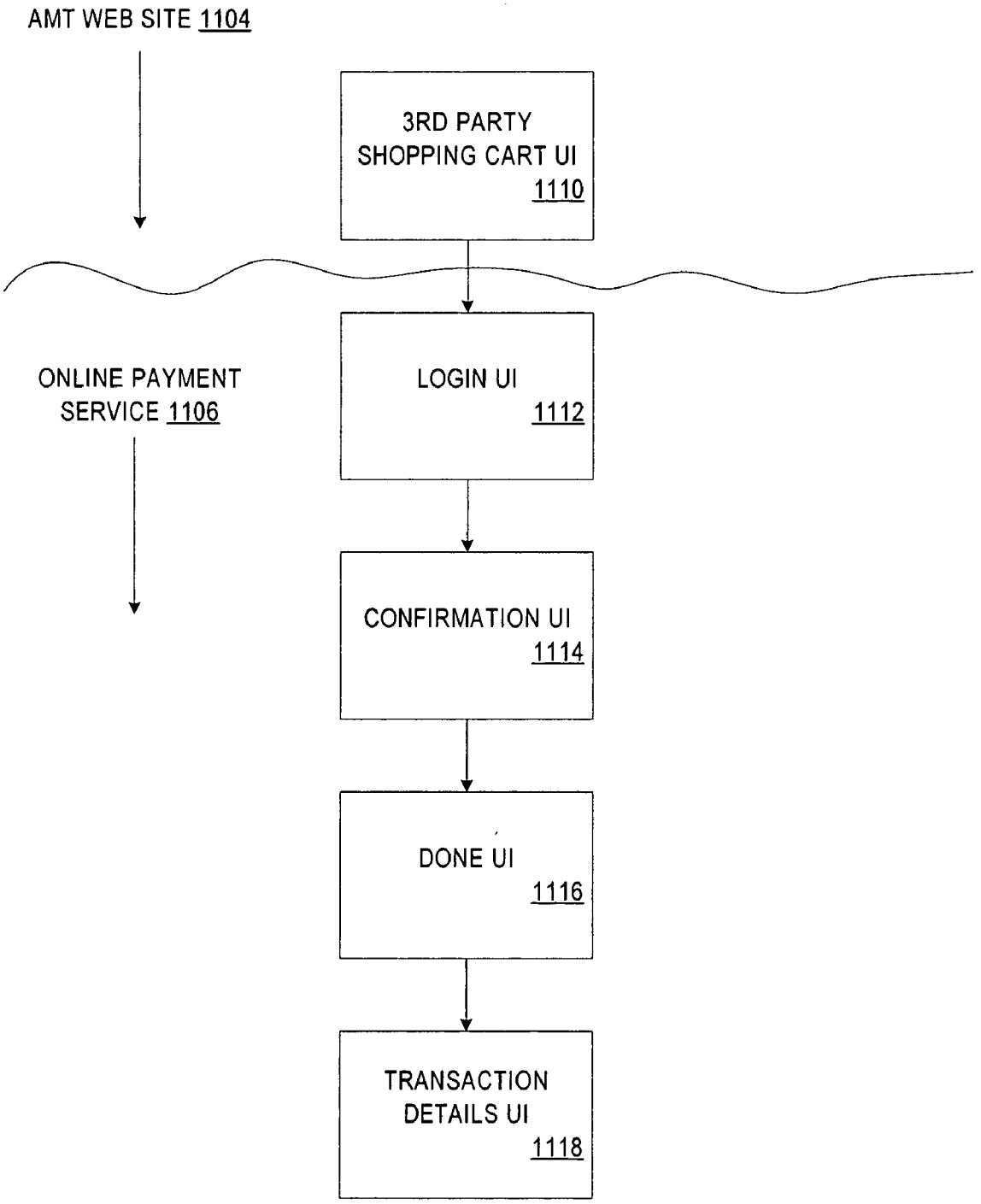

AMT WEB SITE 1104
3RD PARTY SHOPPING CART UI 1110
ONLINE PAYMENT SERVICE 1106
LOGIN UI 1112
CONFIRMATION UI 1114
DONE UI 1116
TRANSACTION DETAILS UI 1118

FIG. 11

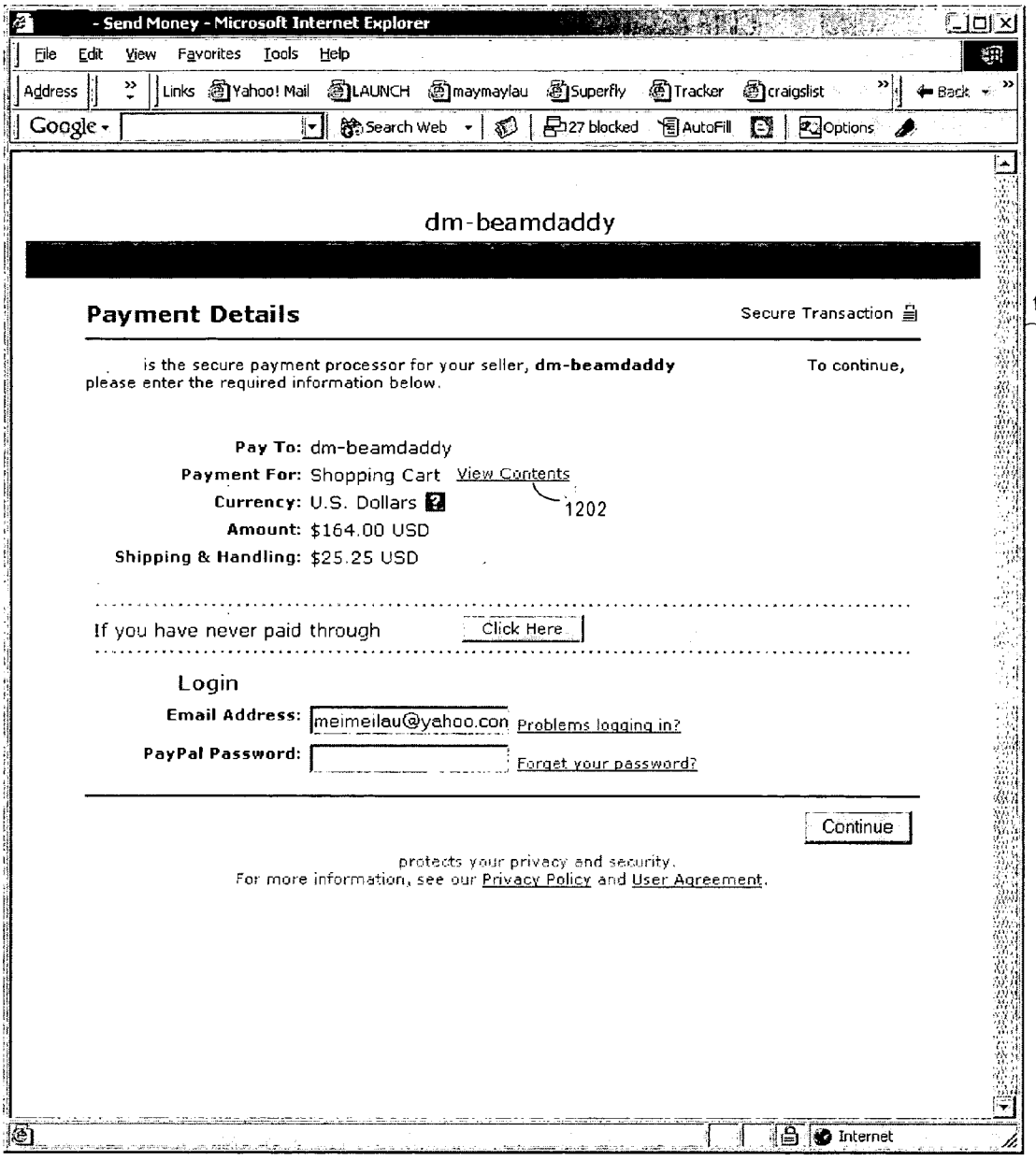

- Send Money - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address Links Yahoo! Mail LAUNCH maymaylau Superfly Tracker craigslist Back
Google Search Web 27 blocked AutoFill Options
dm-beamdaddy
Payment Details
Secure Transaction
1200
is the secure payment processor for your seller, dm-beamdaddy
To continue, please enter the required information below.
Pay To: dm-beamdaddy
Payment For: Shopping Cart View Contents
Currency: U.S. Dollars
1202
Amount: $164.00 USD
Shipping & Handling: $25.25 USD
If you have never paid through
Click Here
Login
Email Address: meimeilau@yahoo.com
Problems logging in?
PayPal Password:
Forget your password?
Continue
protects your privacy and security.
For more information, see our Privacy Policy and User Agreement.
Internet

FIG. 12

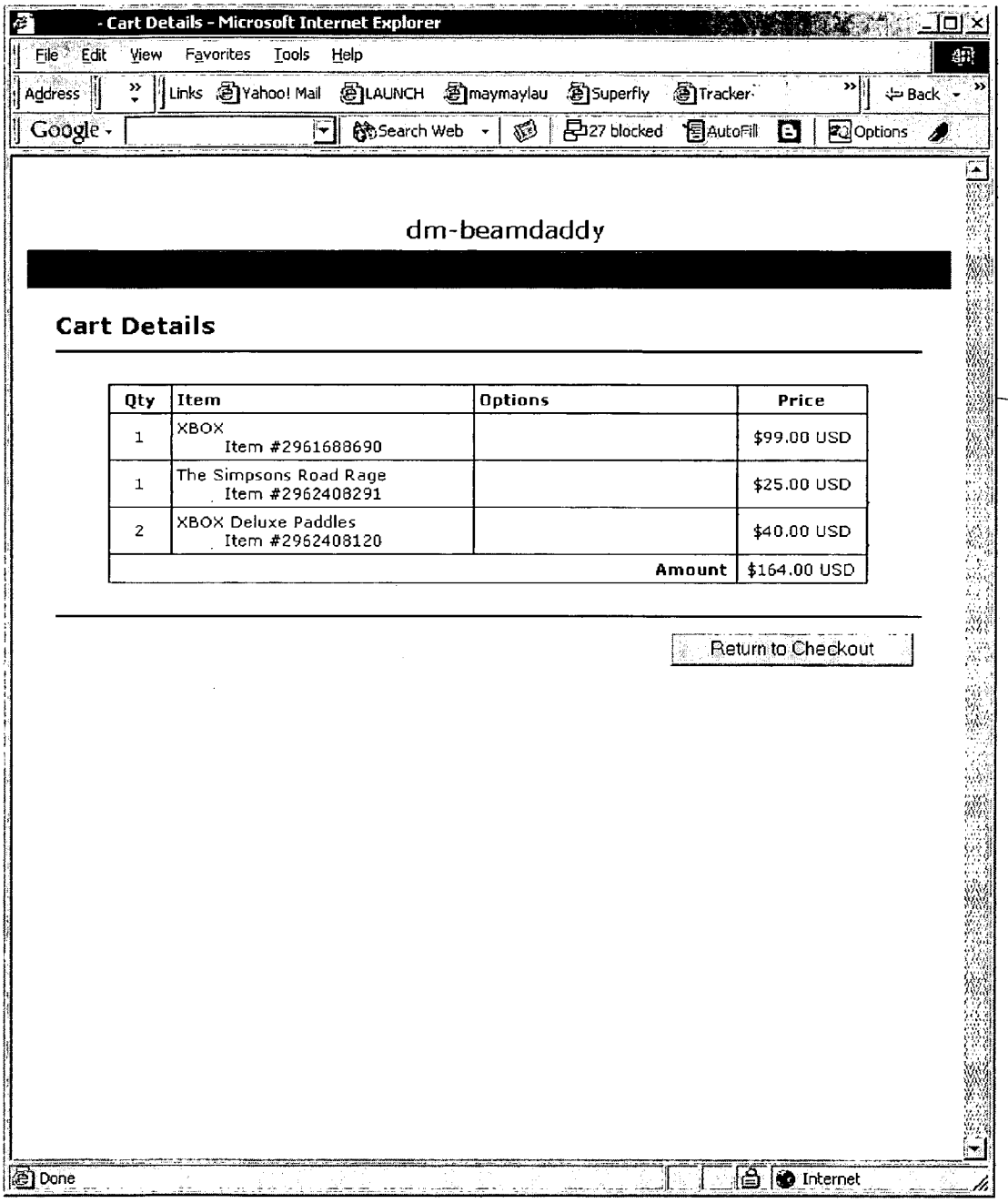

- Cart Details - Microsoft Internet Explorer
File Edit View Favorites Tools Help
Address Links Yahoo! Mail LAUNCH maymaylau Superfly Tracker Back
Google Search Web 27 blocked AutoFill Options
dm-beamdaddy
Cart Details
Qty
Item
Options
Price
1
XBOX
Item #2961688690
$99.00 USD
1
The Simpsons Road Rage
Item #2962408291
$25.00 USD
2
XBOX Deluxe Paddles
Item #2962408120
$40.00 USD
Amount
$164.00 USD
Return to Checkout
Done
Internet
1300

FIG. 13

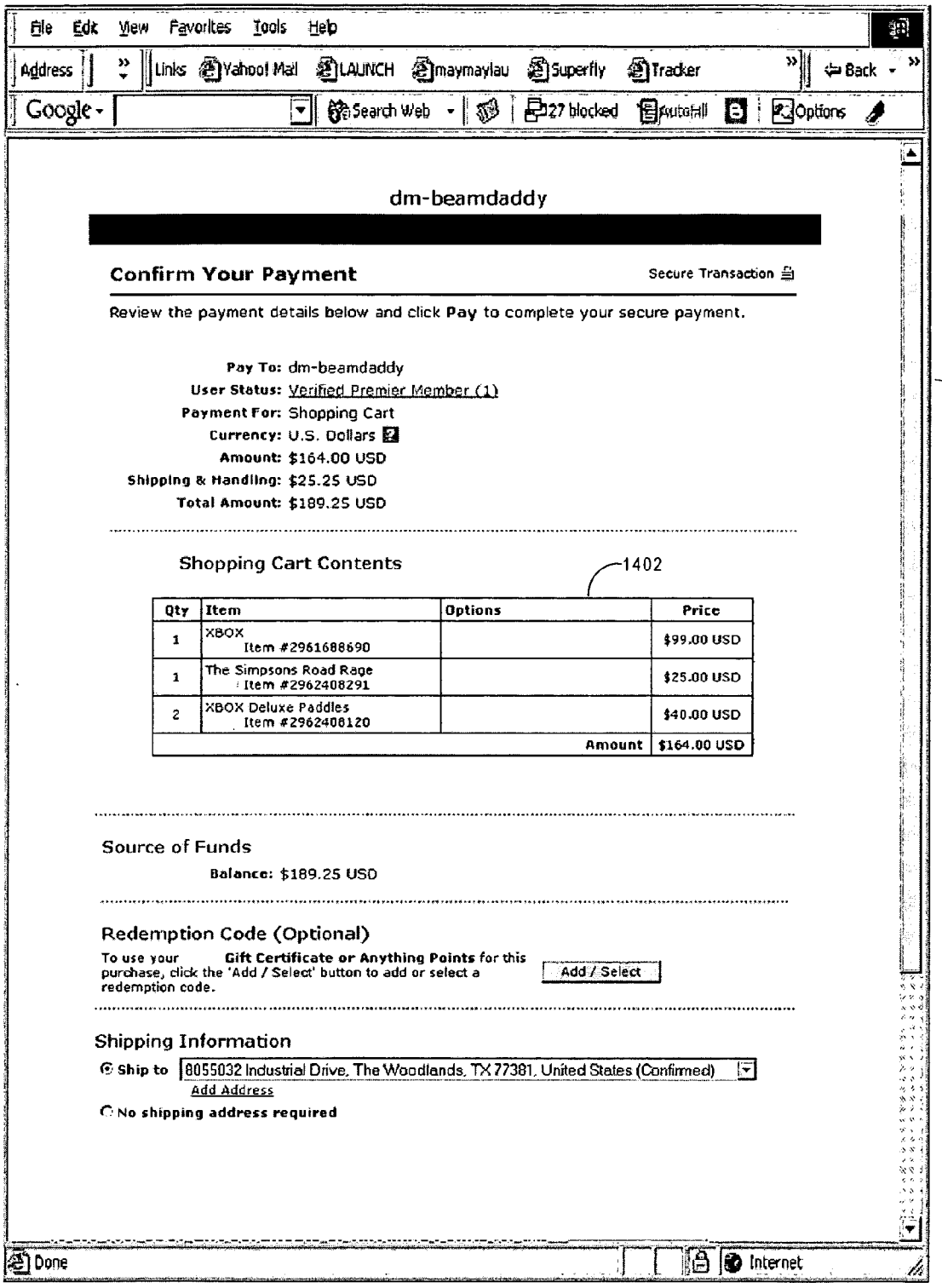

File Edit View Favorites Tools Help
Address Links Yahoo! Mail LAUNCH maymaylau Superfly Tracker Back
Google Search Web 27 blocked AutoFill Options
dm-beamdaddy
Confirm Your Payment
Secure Transaction
Review the payment details below and click Pay to complete your secure payment.
Pay To: dm-beamdaddy
User Status: Verified Premier Member (1)
Payment For: Shopping Cart
Currency: U.S. Dollars
Amount: $164.00 USD
Shipping & Handling: $25.25 USD
Total Amount: $189.25 USD
1400
Shopping Cart Contents
1402
Qty | Item | Options | Price
1 | XBOX Item #2961688690 | | $99.00 USD
1 | The Simpsons Road Rage Item #2962408291 | | $25.00 USD
2 | XBOX Deluxe Paddles Item #2962408120 | | $40.00 USD
Amount | $164.00 USD
Source of Funds
Balance: $189.25 USD
Redemption Code (Optional)
To use your Gift Certificate or Anything Points for this purchase, click the 'Add / Select' button to add or select a redemption code.
Add / Select
Shipping Information
Ship to 8055032 Industrial Drive, The Woodlands, TX 77381, United States (Confirmed)
Add Address
No shipping address required
Done
Internet

FIG. 14

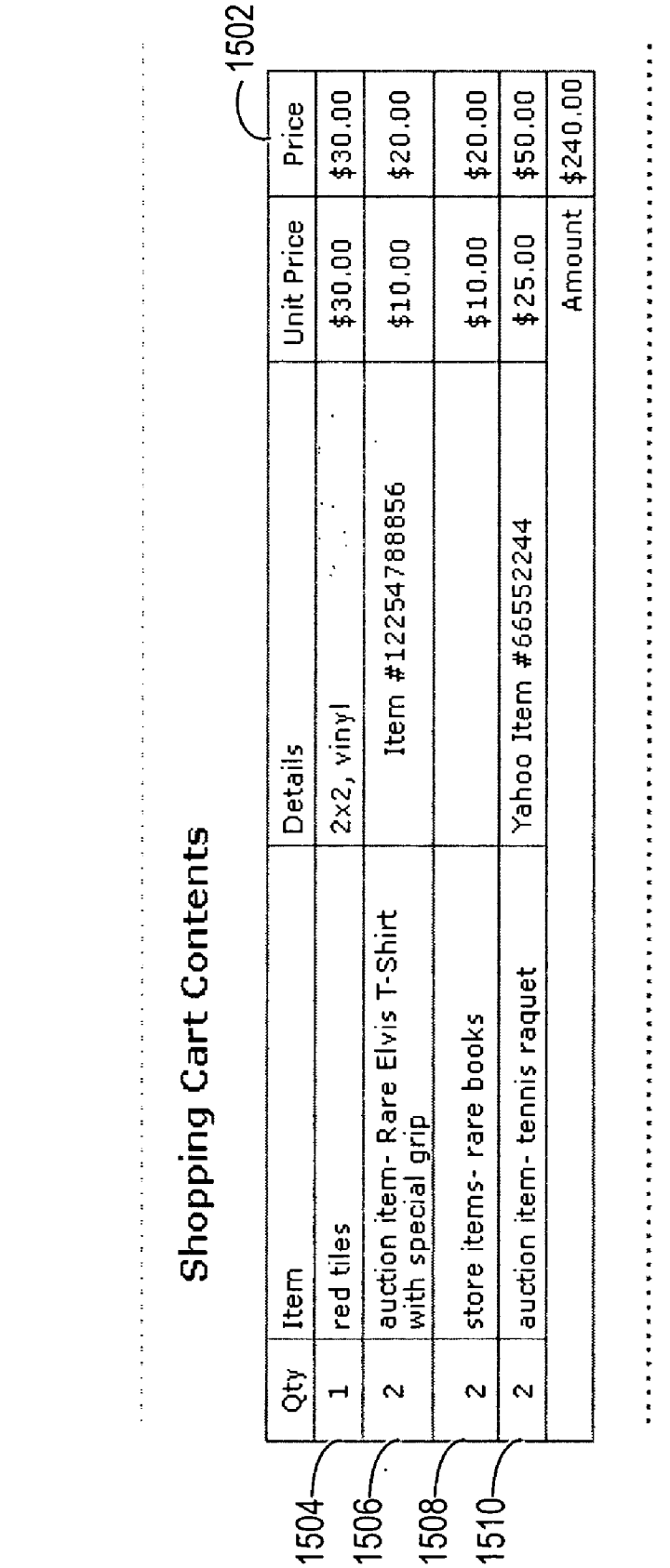

Shopping Cart Contents
1502
Qty
Item
Details
Unit Price
Price
1
red tiles
2x2, vinyl
$30.00
$30.00
2
auction item- Rare Elvis T-Shirt with special grip
Item #12254788856
$10.00
$20.00
2
store items- rare books
$10.00
$20.00
2
auction item- tennis raquet
Yahoo Item #66552244
$25.00
$50.00
Amount
$240.00
1504
1506
1508
1510

FIG. 15

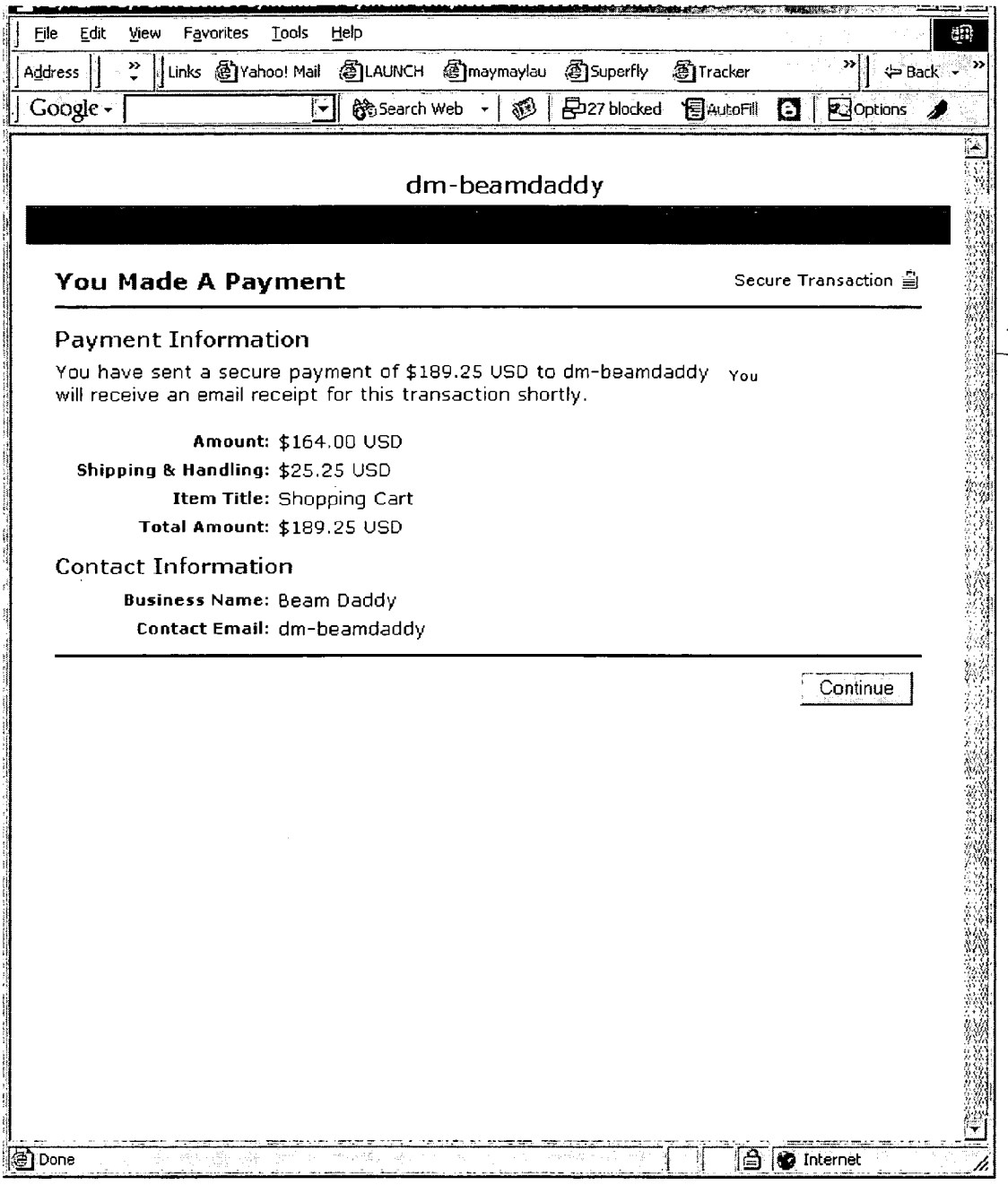

File Edit View Favorites Tools Help
Address Links Yahoo! Mail LAUNCH maymaylau Superfly Tracker Back
Google Search Web 27 blocked AutoFill Options
dm-beamdaddy
You Made A Payment
Secure Transaction
Payment Information
You have sent a secure payment of $189.25 USD to dm-beamdaddy You will receive an email receipt for this transaction shortly.
Amount: $164.00 USD
Shipping & Handling: $25.25 USD
Item Title: Shopping Cart
Total Amount: $189.25 USD
Contact Information
Business Name: Beam Daddy
Contact Email: dm-beamdaddy
Continue
Done
Internet
1600

FIG. 16

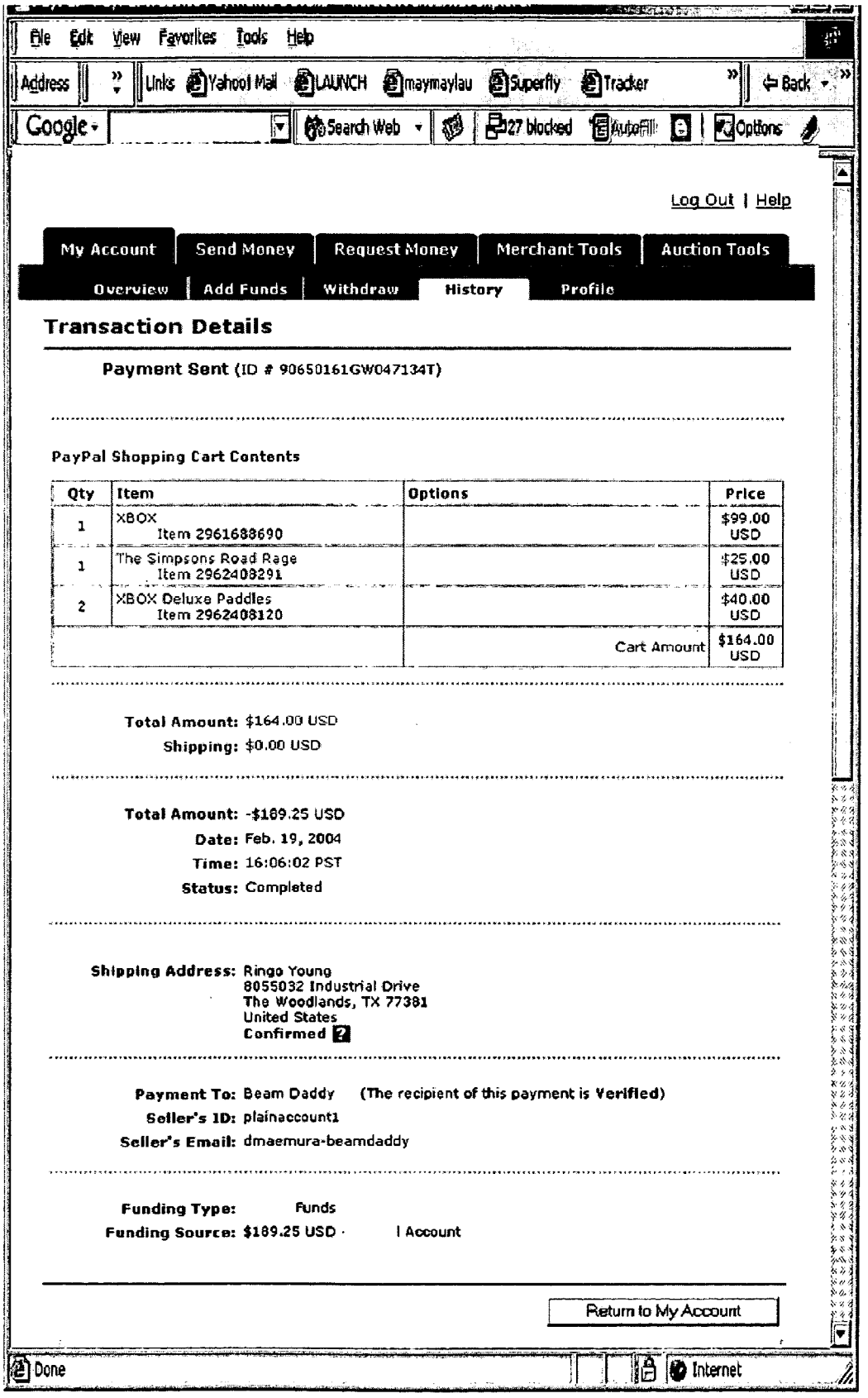

File Edit View Favorites Tools Help
Address
Links Yahoo! Mail LAUNCH maymaylau Superfly Tracker
Back
Google
Search Web
27 blocked
AutoFill
Options
Log Out | Help
My Account
Send Money
Request Money
Merchant Tools
Auction Tools
Overview
Add Funds
Withdraw
History
Profile
Transaction Details
Payment Sent (ID # 90650161GW047134T)
PayPal Shopping Cart Contents
Qty
Item
Options
Price
1
XBOX
Item 2961688690
$99.00 USD
1
The Simpsons Road Rage
Item 2962408291
$25.00 USD
2
XBOX Deluxe Paddles
Item 2962408120
$40.00 USD
Cart Amount
$164.00 USD
Total Amount: $164.00 USD
Shipping: $0.00 USD
Total Amount: -$189.25 USD
Date: Feb. 19, 2004
Time: 16:06:02 PST
Status: Completed
Shipping Address: Ringo Young
8055032 Industrial Drive
The Woodlands, TX 77381
United States
Confirmed
Payment To: Beam Daddy (The recipient of this payment is Verified)
Seller's ID: plainaccount1
Seller's Email: dmaemura-beamdaddy
Funding Type: Funds
Funding Source: $189.25 USD · I Account
Return to My Account
Done
Internet

FIG. 17

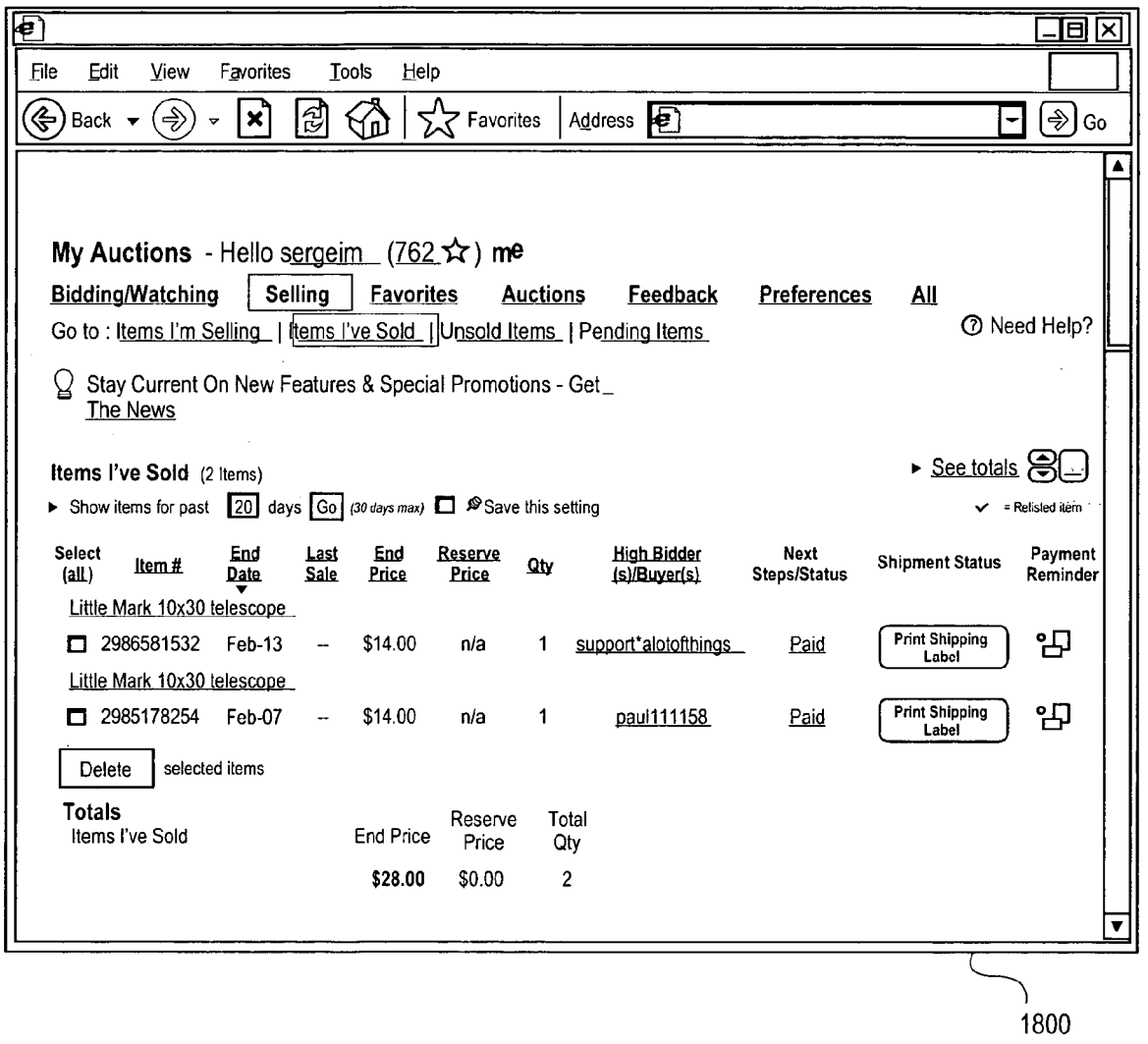

File Edit View Favorites Tools Help
Back Favorites Address Go
My Auctions - Hello sergeim (762 ☆) me
Bidding/Watching Selling Favorites Auctions Feedback Preferences All
Go to : Items I'm Selling | Items I've Sold | Unsold Items | Pending Items
Need Help?
Stay Current On New Features & Special Promotions - Get The News
Items I've Sold (2 Items)
See totals
Show items for past 20 days Go (30 days max) Save this setting
= Relisted item
Select (all) Item # End Date Last Sale End Price Reserve Price Qty High Bidder (s)/Buyer(s) Next Steps/Status Shipment Status Payment Reminder
Little Mark 10x30 telescope
2986581532 Feb-13 -- $14.00 n/a 1 support*alotofthings Paid Print Shipping Label
Little Mark 10x30 telescope
2985178254 Feb-07 -- $14.00 n/a 1 paul111158 Paid Print Shipping Label
Delete selected items
Totals
Items I've Sold End Price Reserve Price Total Qty
$28.00 $0.00 2
1800

FIG. 18

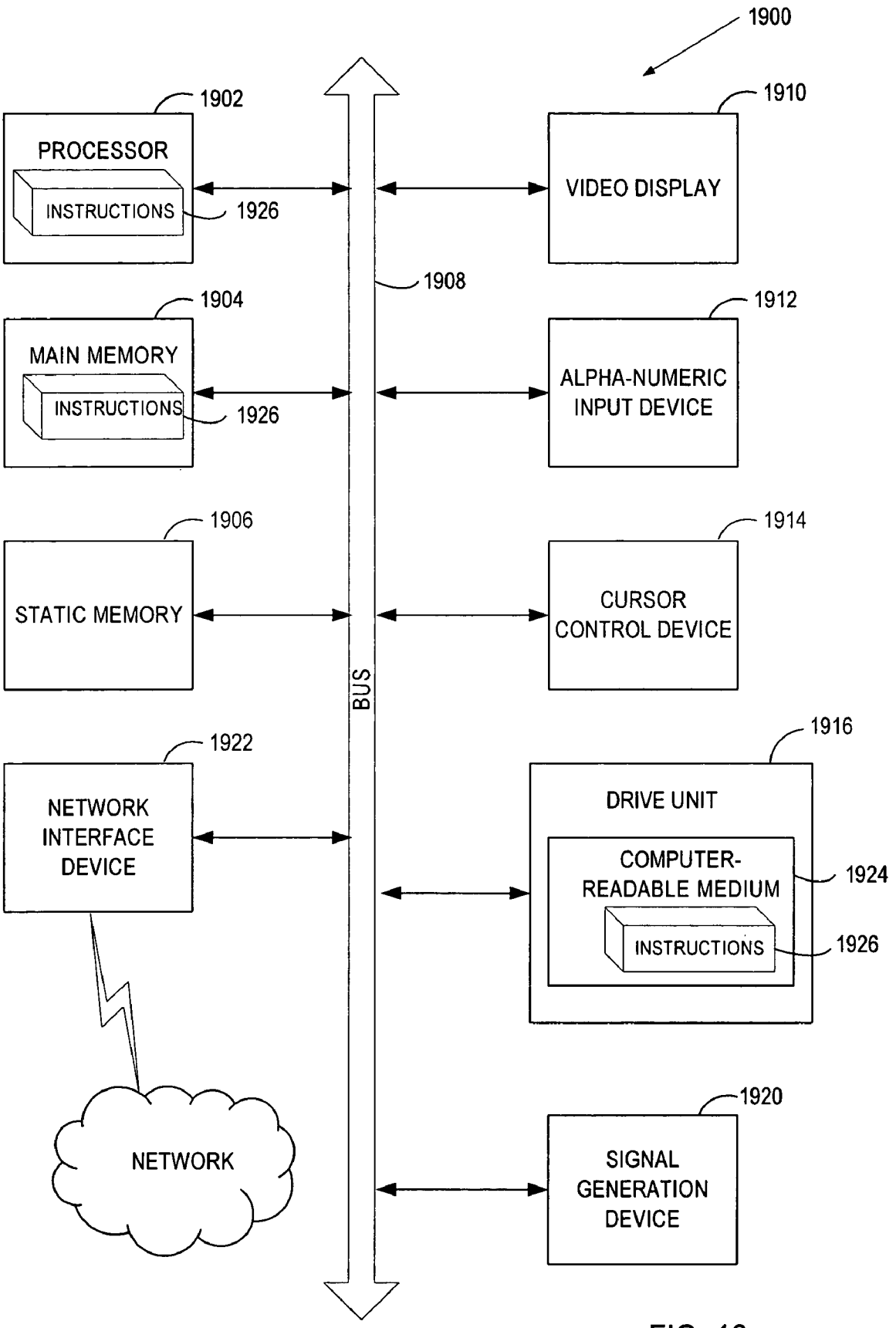

1900
1902
PROCESSOR
INSTRUCTIONS
1926
1904
MAIN MEMORY
INSTRUCTIONS
1926
1906
STATIC MEMORY
1908
BUS
1910
VIDEO DISPLAY
1912
ALPHA-NUMERIC INPUT DEVICE
1914
CURSOR CONTROL DEVICE
1916
DRIVE UNIT
COMPUTER-READABLE MEDIUM
1924
INSTRUCTIONS
1926
1920
SIGNAL GENERATION DEVICE
1922
NETWORK INTERFACE DEVICE
NETWORK

FIG. 19

INTEGRATING THIRD PARTY SHOPPING CART APPLICATIONS WITH AN ONLINE PAYMENT SERVICE

RELATED APPLICATION

[0001] This application is related to and claims the benefit of U.S. Provisional Patent application Ser. No. 60/520,173 filed Nov. 14, 2003, which is hereby incorporated by reference.

FIELD OF THE INVENTION

[0002] The present invention relates generally to the field of e-commerce and, more specifically, to integrating third party shopping cart applications with an online payment service.

BACKGROUND OF THE INVENTION

[0003] The Internet has become the world's market place. Merchants are increasingly selling products and services via various online commerce facilities such as merchant web sites, online auctions, etc. On merchant web sites, products are typically sold using the "shopping cart" model that allows a customer to select an item from an electronic catalog and then metaphorically adds the selected item to a shopping cart. When the customer is done selecting items, the customer requests that the items in the shopping cart be "checked out". At this point, a payment transaction is initiated, and the purchaser is asked to provide billing information such as a credit card number and other confidential information. Typically, merchants use customized shopping cart applications for providing a shopping cart flow and an independent online payment service (e.g., PayPal®) for handling payment transactions.

[0004] A large number of merchants offer their products via various online marketplaces, which often support a number of price-setting mechanisms (e.g., auctions). Different auction management tools (AMTs) have been developed to assist sellers in managing their items posted on various online auctions. AMTs usually send notifications to winning bidders. A winning bidder can then access the checkout flow using a link in the winning bidder notification and proceed with the payment. Typically, AMTs allow their users to make payments via an independent online payment service (e.g., PayPal®) that is trusted by the users for its secure, fast and easy-to-use operation.

SUMMARY OF THE INVENTION

[0005] According to one aspect of the present invention, detailed information concerning items placed by a user in a virtual shopping cart hosted by a merchant web site is received from a third party shopping cart application. The detailed information is sent by the third party shopping cart application in response to a user request to proceed with a payment for the items. Once the detailed information is received, the user is presented with one or more user interfaces facilitating processing of the payment. The user interfaces allow the user to view the content of the virtual shopping cart.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] The present invention is illustrated by way of example and not limitation in the figures of the accompanying drawings, in which like references indicate similar elements and in which:

[0007] **FIG. 1** is a block diagram of one embodiment of a system for processing online payment transactions initiated via merchant web sites.

[0008] **FIG. 2** is a flow diagram of one embodiment of a method for processing a payment transaction initiated by a third party shopping cart application.

[0009] **FIG. 3** illustrates an exemplary flow of UIs presented to a user of an online payment service, according to one embodiment of the present invention.

[0010] **FIGS. 4-8** illustrate exemplary user interfaces (UIs) presented to a user by an online payment service, according to one embodiment of the present invention.

[0011] **FIG. 9** is a block diagram of one embodiment of a system for processing online payment transactions initiated via auction management tools (AMTs).

[0012] **FIG. 10** is a flow diagram of one embodiment of a method for processing a payment transaction initiated by the AMT.

[0013] **FIG. 11** illustrates an exemplary flow of UIs presented to a user of an online payment service, according to one embodiment of the present invention.

[0014] **FIGS. 12-17** illustrate exemplary UIs presented to a user by an online payment service, according to one embodiment of the present invention.

[0015] **FIG. 18** illustrates an exemplary My Auctions UI presented to a user by an auction facility, according to one embodiment of the present invention.

[0016] **FIG. 19** is a diagrammatic representation of an exemplary computer system.

DETAILED DESCRIPTION

[0017] A method and system for integrating third party shopping cart applications with an online payment service are described. In the following description, for purposes of explanation, numerous specific details are set forth in order to provide a thorough understanding of the present invention. It will be evident, however, to one skilled in the art that the present invention may be practiced without these specific details.

Third Party Shopping Carts

[0018] **FIG. 1** is a block diagram of one embodiment of a system **100** for processing online payment transactions initiated via merchant web sites. The system **100** includes multiple client computers (clients **1** through N) **102** coupled to multiple merchant servers (servers **1** through N) **112** and an online payment service **110** via a communications network **106**, including a wide area network such as the Internet. Other examples of the communications network **106** may include a local area network (LAN), a wireless network (e.g., a cellular network), or the Plain Old Telephone Service (POTS) network.

[0019] The client **102** includes a client program **104**, such as a browser (e.g., the Internet Explorer distributed by Microsoft Corp. of Redmond, Wash.) that executes on the client **102** and accesses the merchant server **108** and the online payment service **110**.

[0020] The merchant server **108** supports a merchant web site that can be a retailer or wholesaler web site visited by various buyers including the users of the clients **102**. The merchant web site uses a third party shopping cart application **112** that places items, selected by a buyer via the merchant web site, in a virtual shopping cart. A third shopping cart application **112** is an application external to the online payment service **110** that is developed by an external developer/company to allow a merchant or another third party to host a shopping cart on its web site. The shopping cart hosted by a merchant or any other third party is referred to herein as a third party shopping cart.

[0021] The merchant servers **108** are coupled to the online payment service **110** via the communications network **106**. The online payment service **110** facilitates processing of online payment transactions between buyers of the merchant web sites **108** and the merchants. In one embodiment, the online payment service **110** includes interfaces to external processors to process payment transactions of corresponding types. In another embodiment, the online payment service **110** includes an internal payment processing system.

[0022] In one embodiment, the online payment service **110** is invoked by the third party shopping cart application **112** each time a buyer submits a request to proceed with the payment for items placed in a shopping cart hosted by a merchant web site. The buyer request may be submitted when the buyer clicks the checkout button on the merchant web site or performs some other predefined operation. Once the online payment service **110** is invoked, it presents to the buyer a set of user interfaces (UIs) that facilitate the processing of the payment while allowing the buyer to view the contents of the shopping cart for which the payment is being made.

[0023] In one embodiment, the online payment service **110** includes a third party shopping cart interface **114**, a payment processor **116**, a UI module **115**, and a database **120**. The third party shopping cart interface **114** is responsible for receiving, from the third party shopping cart application **112**, detailed information about the items placed by the buyer in the shopping cart hosted by the merchant web site and storing the detailed information in the database **120**. The detailed information may include, for each item in the shopping cart, the item name, the item number, the item price, the item quantity, and various other data.

[0024] The payment processor **116** is responsible for collecting the buyer's personal information via UIs generated by the UI module **115**, facilitating the processing of the buyer's payment for the items in the shopping cart, and informing the buyer that the payment has been sent to the merchant. The UIs presented to the buyer allow the buyer to view the contents of the shopping cart while the buyer's payment is being processed. Once the payment transaction is completed, it is reflected in the transaction history maintained by the online payment service **110** for each of the buyer and the merchant. When the buyer or the seller accesses his or her transaction history, this payment transaction appears as a standard payment transaction initiated via the online payment service **100**.

[0025] Thus, embodiments of the present invention enable complete integration of the third party shopping cart applications **112** with the online payment service **110**. As a result, merchants can seamlessly combine on their web sites customized shopping cart applications, which provide additional means for promoting merchants' products, with an independent online payment service that is widely used and trusted by many users.

[0026] **FIG. 2** is a flow diagram of one embodiment of a method **200** for processing a payment transaction initiated by the third party shopping cart application **112**. The method **200** may be performed by processing logic, which may comprise hardware, software, or a combination of both. Processing logic resides in the online payment service **110**.

[0027] Referring to **FIG. 2**, the method **200** begins with the third party shopping cart interface **114** receiving from the third party shopping cart application **112** detailed information on items placed by a user in a virtual shopping cart hosted by the merchant web site (processing block **202**). The third party shopping cart application **112** sends the detailed information in response to a user request to proceed with the payment for the items in the virtual shopping cart. The user request may be submitted when the user clicks the checkout button on the merchant web site or performs some other predefined operation.

[0028] At processing block **204**, the third party shopping cart interface **114** stores the detailed information in the database **120**. The detailed information may include, for each item, the item name, the item number, the item price, the item quantity, etc.

[0029] At processing block **206**, the payment processor **116** communicates to the user via the communications network **106** a set of UIs that facilitate processing of the user payment and allow the user to view the contents of the virtual shopping cart.

[0030] In one embodiment, all payment transactions initiated via merchant web sites are marked using a designated flag. The number of times the flag is passed through, and the dollar volume, are stored to monitor the usage of the integrated third party shopping carts. In one embodiment, a system administrator may request to view all payment transactions initiated via merchant web sites. Upon receiving a request from an administrator, the online payment service **110** presents to the administrator an administrator transaction details UI that lists all payment transactions initiated via merchant web sites as third party shopping cart payments and includes a table with third party shopping cart contents. The administrator can also request a report on the number and dollar volume of transactions that involve third party shopping carts.

[0031] **FIG. 3** illustrates an exemplary flow of UIs presented to a user of a merchant web site, according to one embodiment of the present invention. Initially, a merchant web site **304** communicates to a user a merchant web site UI **308** that allows the user to view the items offered by the merchant. The user can order any of these items by clicking an associated "add to cart" button. Once the user is done with selecting the items, a third party shopping cart application running on the merchant web site **304** presents to the user a third party shopping cart UI **310** that display the contents of the shopping cart and allows the user to request a checkout of the selected items. When the user requests the checkout (e.g., by clicking the checkout button), a transition to the online payment service **306** is made.

[0032] During the transition, the online payment service **306** receives and stores information identifying the content

of the virtual shopping cart. This information may include, for example, item names, item numbers, item prices, quantities, option data (option names and values) for each item, etc. In one embodiment, this information may result from user purchases via a single merchant web site. Alternatively, this information may result from user purchases via multiple merchant web sites associated with a single receiving account (e.g., a ticket company allowing a user to buy tickets via web sites of different ticket holders).

[0033] Upon the transition, the online payment service **306** enables the user to review the shopping cart contents on various screens generated by the online payment service **306**. In particular, once the user requests the checkout, the online payment service **306** presents a login UI **312** that asks the user to sign-in (if the user is new to the online payment service **306**) or login (if the user is an existing user of the online payment service **306**), and allows the user to view the content of the shopping cart (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart). Once the user provides the requested information, the online payment service **306** presents to the user a confirmation UI **314** that displays the details of the payment transaction and asks the user to confirm the payment. The confirmation UI **314** also allows the user to view the content of the shopping cart (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart). If the user confirms the payment, the online payment service **306** presents to the user a done UI **316** informing the user that the payment has been sent to the merchant. After that, the user may either be returned to the merchant's website **304** or be presented with an account overview UI **318** that shows this payment transaction as part of the user's transaction history. The account overview UI **318** allows the user to view the content of the shopping cart to which the payment transaction belongs (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart).

[0034] **FIGS. 4-8** illustrate exemplary user interfaces (UIs) presented to a user by the online payment service **306**, according to one embodiment of the present invention.

[0035] **FIG. 4** illustrates an exemplary login UI **400** for a new user. The login UI **500** includes a link **402** that allows the user to view the content of the virtual shopping cart.

[0036] **FIG. 5** illustrates an exemplary login UI **500** for an existing user. The login UI **500** includes a link **502** that allows the user to view the content of the virtual shopping cart.

[0037] **FIG. 6** illustrates an exemplary confirmation UI **600** that provides payment details and requests the user to confirm the payment. The confirmation UI **600** displays the shopping cart contents **602**.

[0038] **FIG. 7** illustrates an exemplary done UI **700** that informs the user that the payment has been sent to the merchant.

[0039] **FIG. 8** illustrates an exemplary account history UI **800** that displays recent transaction activity of the user, including the above payment transaction. The account history UI **800** includes a link **802** that allows the user to view the content of the virtual shopping cart.

AMT Shopping Carts

[0040] **FIG. 9** is a block diagram of one embodiment of a system **900** for processing online payment transactions initiated via auction management tools (AMTs). The system **900** includes multiple client computers (clients **1** through N) **902**, multiple AMT systems (AMT systems **1** through N) **908**, multiple online auction facilities (auction facilities **1** through N) **112**, and an online payment service **110**.

[0041] The client **902** includes a client program **904**, such as a browser (e.g., the Internet Explorer distributed by Microsoft Corp. of Redmond, Wash.) that executes on the client **102** and accesses the AMT systems **908** via a communications network **906**, including a wide area network such as the Internet. Other examples of the communications network **106** may include a local area network (LAN), a wireless network (e.g., a cellular network), or the Plain Old Telephone Service (POTS) network.

[0042] The AMT system **908** provides to vendors an online tool for managing their sales on various network-based commerce facilities (e.g., online auction facilities **912**, retailer or wholesaler facilities, etc.) represented by commerce web sites visited by various buyers including the users of the clients **902**. The AMT system **908** provides the shopping cart flow for items ordered from merchant web sites, auction facilities **912**, or any other commerce facilities on which merchants' sales are managed by the AMT system **908**. Once a buyer selects an item on a merchant web site or wins a bid at an auction facility **912**, the AMT system **908** places a relevant item in a virtual shopping cart (referred to herein as an AMT shopping cart **909**).

[0043] The AMT systems **908** are coupled to the online payment service **910** via the communications network **906**. The online payment service **910** facilitates online payment transactions between various users. In one embodiment, the online payment service **110** includes interfaces to external processors to process payment transactions of corresponding types. In another embodiment, the online payment service **110** includes an internal payment processing system.

[0044] In one embodiment, the online payment service **910** is invoked by the AMT system **908** each time the AMT system **908** receives an indication of the buyer's intent to proceed with the payment for the contents of the AMT shopping cart **909**. The buyer request may be submitted when the buyer clicks a designated link or button (e.g., the link identifying the online payment service, the checkout button, the add to cart button, etc.) or performs some other predefined operation. Once the online payment service **910** is invoked, it presents to the buyer a set of user interfaces (UIs) that facilitate the processing of the payment while allowing the buyer to view the contents of the AMT shopping cart **909** for which the payment is being made. If the payment transaction completes successfully, the online payment service **910** identifies shopping cart items from auction facilities **912** and communicates with the auction facilities **912** via the communications network **906** to inform the auction facilities **912** about the payment.

[0045] Each auction facility **912** includes a transaction postback processor **914** that marks auction transactions pertaining to the shopping cart items as paid.

[0046] In one embodiment, the online payment service **910** includes an AMT interface **916**, a payment processor

918, a UI module **922**, and a database **920**. The AMT interface **916** is responsible for receiving, from the AMT **908**, detailed information about the items in the AMT shopping cart **909** and storing the detailed information in the database **920**. The detailed information may include, for each item in the shopping cart, the item name, the item number, the item price, the item quantity, and various other data. In addition, for each item from the auction facilities **912**, the detailed information may include, for example, the specifier of the auction facility **912**, the buyer ID within the auction facility **912**, the transaction number within the auction facility **912**, etc.

[**0047**] The payment processor **918** is responsible for collecting the buyer's personal information via UIs generated by the UI module **922**, facilitating the processing of the buyer's payment for the items in the shopping cart, and informing the buyer that the payment has been sent to the seller. The UIs presented to the buyer allow the buyer to view the contents of the shopping cart while the buyer's payment is being handled. Once the payment transaction is completed, it is reflected in the transaction history maintained by the online payment service **910** for each of the buyer and the seller. When the buyer or the seller accesses his or her transaction history, this payment transaction appears as a standard payment transaction initiated via the online payment service **100**.

[**0048**] In one embodiment, the payment processor **918** is also responsible for identifying which auction facilities have items in the shopping cart and informing those auction facilities about the payment.

[**0049**] Thus, embodiments of the present invention enable complete integration of the AMTs **908** with the online payment service **910** and involved auction facilities **912**, transferring transaction information between these different systems in real time and allowing users to access the transaction information in each of those systems in real time.

[**0050**] **FIG. 10** is a flow diagram of one embodiment of a method **1000** for processing a payment transaction initiated by the AMT **908**. The method **1000** may be performed by processing logic, which may comprise hardware, software, or a combination of both. Processing logic resides in the online payment service **910**.

[**0051**] Referring to **FIG. 10**, the method **1000** begins with the AMT interface **916** receiving from the AMT system **908** detailed information on items purchased by a user from one or more network-based commerce facilities (processing block **1002**). The items purchased by the user are placed by the AMT system **908** in the AMT shopping cart **909**. AMT system **908** sends the detailed information on the items to the online payment service **910** in response to receiving an indication of the user intent to proceed with the payment for the items in the virtual shopping cart. The indication of the user intent may be received when the user clicks a designated button or link on the AMT web site (e.g., the link identifying the online payment service **910**, the checkout button, the add-to-cart button, etc.) or performs some other predefined operation.

[**0052**] At processing block **1004**, the AMT interface **916** stores the detailed information in the database **920**. For each item purchased from a merchant web site, the detailed information may include, for example, the item name, the item number, the item price, the item quantity, etc. For each item purchased from an auction facility **912**, the detailed information may include, for example, the specifier of the auction facility **912**, the buyer ID within the auction facility **912**, the transaction number within the auction facility **912**, the item number within the auction facility **912**, the item name, the item price, the item quantity, etc.

[**0053**] At processing block **1006**, the payment processor **918** communicates to the user via the communications network **906** a set of UIs that facilitate processing of the user payment and allow the user to view the contents of the AMT shopping cart.

[**0054**] At decision box **1008**, the payment processor **918** determines whether the payment transaction is successful. If not, the method **1000** ends. If so, the payment processor **918** determines whether any items in the AMT shopping cart are from an auction facility **912** (decision box **1010**). If not, the method **1000** ends. If so, the payment processor **918** identifies involved auction facilities (processing block **1012**) and sends relevant payment information to the involved auction facilities (processing block **1014**). This payment information may include the buyer ID within the auction facility, the transaction number within the auction facility, the item number within the auction facility, the payment amount, the item price, the item quantity, etc. The auction facilities then use this payment information to mark the relevant auction transactions accordingly (e.g., as paid, payment pending, etc.).

[**0055**] In one embodiment, all payment transactions initiated via AMTs **908** are marked using a designated flag. The counter specifying the number of times the flag is passed through and the dollar volume are stored to monitor the usage of the integrated AMT shopping carts. In one embodiment, the counter and dollar volume are maintained for each auction facility **912** to allow the auction facility **912** to compare the dollar volume associated with transactions initiated via the AMTs with the dollar volume associated with transactions initiated directly via the auction facility **912**.

[**0056**] In one embodiment, the system administrator may request to view all payment transactions initiated via AMT shopping carts. Upon receiving a request from an administrator, the online payment service **110** presents to the administrator an administrator transaction details UI that lists all payment transactions initiated via AMT shopping carts as AMT shopping cart payments and includes a table with AMT shopping cart contents. The administrator can also request a report on the number and dollar volume of transactions that involve AMT shopping carts.

[**0057**] **FIG. 11** illustrates an exemplary flow of UIs presented to a user, according to one embodiment of the present invention. Initially, an AMT web site **304** communicates to a user an AMT shopping cart UI **310** that displays information concerning the contents of an AMT shopping cart. A user may access the AMT shopping cart via, for example, a link in a winning bidder notification sent to the user, a designated link or button on the AMT web site **304**, a button or link next to an ordered item on a corresponding merchant web site or auction web site, etc.

[**0058**] When the user provides an indication of his or her intent to proceed with the payment for the contents of the

AMT shopping cart (e.g., by clicking the checkout or add to cart button or a designated link), a transition to the online payment service **1106** is made. During the transition, the online payment service **1106** receives and stores information identifying the content of the AMT shopping cart. This information may include, for example, an auction specifier, an auction buyer ID, auction transaction IDs, auction item numbers, item names, item prices, quantities, etc. This information may result from user purchases from one or more merchant web sites and/or one or more auction facilities.

[**0059**] Upon the transition, the online payment service **1106** enables the user to review the shopping cart contents on various screens generated by the online payment service **1106**. In particular, once the user requests the checkout, the online payment service **1106** presents a login UI **1112** that asks the user to sign-in (if the user is new to the online payment service **1106**) or login (if the user is an existing user of the online payment service **1106**) and allows the user to view the content of the shopping cart (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart). Once the user provides the requested information, the online payment service **1106** presents to the user a confirmation UI **1114** that displays the details of the payment transaction and asks the user to confirm the payment. The confirmation UI **1114** also allows the user to view the content of the shopping cart (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart). If the user confirms the payment, the online payment service **1106** presents to the user a done UI **1116** informing the user that the payment has been sent to the merchant. After that, the user is presented with a transaction details UI **1118** that shows the details of this payment transaction. The transaction details UI **1118** allows the user to view the content of the shopping cart to which the payment transaction belongs (e.g., by displaying the content of the shopping cart or including a link to a screen displaying the content of the shopping cart).

[**0060**] Further, the online payment service **1106** communicates payment information to the involved auction facilities. A seller can then see relevant auction transactions marked as paid on screens generated by corresponding auction facilities.

[**0061**] **FIGS. 12-17** illustrate exemplary user interfaces (UIs) presented to a user by the online payment service **1106**, according to one embodiment of the present invention.

[**0062**] **FIG. 12** illustrates an exemplary login UI **1200** for an existing user. The login UI **1200** includes a link **1202** that allows the user to view the content of the AMT shopping cart.

[**0063**] **FIG. 13** illustrates an exemplary cart details UI **1300** that displays the contents of the AMT shopping cart.

[**0064**] **FIG. 14** illustrates an exemplary confirmation UI **1400** that provides payment details and requests the user to confirm the payment. The confirmation UI **1400** displays the shopping cart contents **1402** that include items from a single auction facility.

[**0065**] **FIG. 15** illustrates a portion of the confirmation UI with shopping cart contents **1502** in which the items are from multiple auction facilities (items **1506** and **1510**) and merchant web sites (items **1504** and **1508**).

[**0066**] **FIG. 16** illustrates an exemplary done UI **1600** which informs the user that the payment has been sent to the merchant.

[**0067**] **FIG. 17** illustrates an exemplary transaction details UI **1700** that displays details about the above payment transaction, including the shopping cart contents **1702**.

[**0068**] **FIG. 18** illustrates an exemplary My Auctions UI **1800** presented to a user by an auction facility, according to one embodiment of the present invention. My Auction UI **1800** displays transactions initiated via the AMT as paid based on the information provided by the online payment service **1104**.

[**0069**] **FIG. 19** shows a diagrammatic representation of a machine in the exemplary form of a computer system **1900** within which a set of instructions, for causing the machine to perform any one of the methodologies discussed above, may be executed. In alternative embodiments, the machine may comprise a network router, a network switch, a network bridge, Personal Digital Assistant (PDA), a cellular telephone, a web appliance or any machine capable of executing a sequence of instructions that specify actions to be taken by that machine.

[**0070**] The computer system **1900** includes a processor **1902**, a main memory **1904** and a static memory **1906**, which communicate with each other via a bus **1908**. The computer system **1900** may further include a video display unit **1910** (e.g., a liquid crystal display (LCD) or a cathode ray tube (CRT)). The computer system **1900** also includes an alpha-numeric input device **1912** (e.g. a keyboard), a cursor control device **1914** (e.g. a mouse), a disk drive unit **1916**, a signal generation device **1920** (e.g. a speaker) and a network interface device **1922**.

[**0071**] The disk drive unit **1916** includes a machine-readable medium **1924** on which is stored a set of instructions (i.e., software) **1926** embodying any one, or all, of the methodologies described above. The software **1926** is also shown to reside, completely or at least partially, within the main memory **1904** and/or within the processor **1902**. The software **1926** may further be transmitted or received via the network interface device **1922**. For the purposes of this specification, the term "machine-readable medium" shall be taken to include any medium that is capable of storing or encoding a sequence of instructions for execution by the machine and that cause the machine to perform any one of the methodologies of the present invention. The term "machine-readable medium" shall accordingly be taken to included, but not be limited to, solid-state memories, optical and magnetic disks, and carrier wave signals.

[**0072**] Thus, a method and system for integrating third party shopping cart applications with an online payment service have been described. Although the present invention has been described with reference to specific exemplary embodiments, it will be evident that various modifications and changes may be made to these embodiments without departing from the broader spirit and scope of the invention. Accordingly, the specification and drawings are to be regarded in an illustrative rather than a restrictive sense.

What is claimed is:

1. A method comprising:

receiving, from a third party shopping cart application, detailed information concerning one or more items placed by a user in a virtual shopping cart hosted by a merchant web site, the detailed information being sent by the third party shopping cart application in response to a user request to proceed with a payment for the one or more items; and

upon receiving the detailed information from the third party shopping cart application, communicating to the user via a communications network one or more user interfaces that facilitate processing of the payment for the one or more items, the one or more user interfaces allowing the user to view content of the virtual shopping cart.

2. The method of claim 1 wherein the detailed information is selected, for each of the one or more items, from the group consisting of an item name, an item number, an item price and an item quantity.

3. The method of claim 1 wherein the user request to proceed with the payment is received when the user clicks a checkout button on the merchant web site.

4. The method of claim 1 wherein the one or more user interfaces comprise a login user interface to facilitate user input of personal information and a payment confirmation user interface to facilitate user input confirming the payment.

5. The method of claim 4 wherein the payment confirmation user interface displays the contents of the virtual shopping cart.

6. The method of claim 4 wherein the login user interface includes a link to the contents of the virtual shopping cart.

7. The method of claim 4 wherein the personal information includes user credit card information if the user is a new user of an online payment service.

8. The method of claim 1 further comprising:

upon processing the payment for the one or more items, presenting to the user a personal account user interface displaying information concerning the payment.

9. The method of claim 8 wherein the personal account user interface includes a link to the contents of the virtual shopping cart.

10. An apparatus comprising:

a third party shopping cart interface to receive, from a third party shopping cart application, detailed information concerning one or more items placed by a user in a virtual shopping cart hosted by a merchant web site, the detailed information being sent by the third party shopping cart application in response to a user request to proceed with a payment for the one or more items; and

a payment processor to communicate, upon receiving the detailed information from the third party shopping cart application, to the user via a communications network one or more user interfaces that facilitate processing of the payment for the one or more items, the one or more user interfaces allowing the user to view content of the virtual shopping cart.

11. The apparatus of claim 10 wherein the detailed information is selected, for each of the one or more items, from the group consisting of an item name, an item number, an item price and an item quantity.

12. The apparatus of claim 10 wherein the user request to proceed with the payment is received when the user clicks a checkout button on the merchant web site.

13. The apparatus of claim 10 wherein the one or more user interfaces comprise a login user interface to facilitate user input of personal information and a payment confirmation user interface to facilitate user input confirming the payment.

14. The apparatus of claim 13 wherein the payment confirmation user interface displays the contents of the virtual shopping cart.

15. The apparatus of claim 13 wherein the login user interface includes a link to the contents of the virtual shopping cart.

16. The apparatus of claim 10 wherein the payment processor is further to present to the user a personal account user interface displaying information concerning the payment upon processing the payment for the one or more items.

17. The apparatus of claim 16 wherein the personal account user interface includes a link to the contents of the virtual shopping cart.

18. A system comprising:

a merchant web site to implement a third-party shopping cart application that allows a user to place one or more items offered by the merchant web site in a virtual shopping cart hosted by the merchant web site;

a client, coupled to the merchant web site via a communications network, to present user interface information that facilitates processing of a user payment for the one or more items in the virtual shopping cart; and

an online payment service, coupled to the merchant web site and the client via the communications network, to receive detailed information concerning the one or more items in the virtual shopping cart from the third-party shopping cart application, and to communicate to the user via the communications network one or more user interfaces that facilitate processing of the payment for the one or more items, the one or more user interfaces allowing the user to view content of the virtual shopping cart.

19. The system of claim 18 wherein the detailed information is selected, for each of the one or more items, from the group consisting of an item name, an item number, an item price and an item quantity.

20. The system of claim 18 wherein the user request to proceed with the payment is received when the user clicks a checkout button on the merchant web site.

21. The system of claim 18 wherein the one or more user interfaces comprise a login user interface to facilitate user input of personal information and to display the contents of the virtual shopping cart, and a payment confirmation user interface to facilitate user input confirming the payment and to include a link to the contents of the virtual shopping cart.

22. A computer readable medium comprising instructions, which when executed on a processor, cause the processor to perform a method comprising:

receiving, from a third party shopping cart application, detailed information concerning one or more items

placed by a user in a virtual shopping cart hosted by a merchant web site, the detailed information being sent by the third party shopping cart application in response to a user request to proceed with a payment for the one or more items; and

upon receiving the detailed information from the third party shopping cart application, communicating to the user via a communications network one or more user interfaces that facilitate processing of the payment for the one or more items, the one or more user interfaces allowing the user to view content of the virtual shopping cart.

23. The computer readable medium of claim 22 wherein the detailed information is selected, for each of the one or more items, from the group consisting of an item name, an item number, an item price and an item quantity.

24. The computer readable medium of claim 22 wherein the one or more user interfaces comprise a login user interface to facilitate user input of personal information and to display the contents of the virtual shopping cart, and a payment confirmation user interface to facilitate user input confirming the payment and to include a link to the contents of the virtual shopping cart.

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