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(54) SYSTEMS AND METHODS FOR PROCESSING INCOMPLETE TRANSACTIONS OVER A NETWORK

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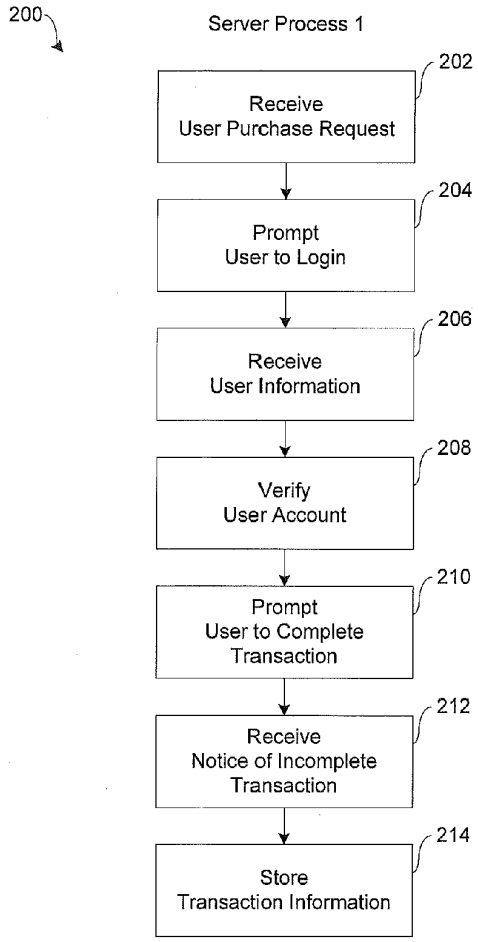
(57) **ABSTRACT**

In accordance with one or more embodiments of the present disclosure, a system and method for facilitating electronic commerce over a network includes communicating with a user via a user device and a merchant via a merchant device over the network, storing an incomplete purchase transaction between the user and the merchant, generating a portable checkout link to the incomplete purchase transaction, providing the portable checkout link to the user over the network, allowing the user to select the incomplete purchase transaction for processing, and processing the incomplete purchase transaction upon user selection. The system and method may include notifying the user of the incomplete purchase transaction over the network.



Salesforce EX1005
Salesforce, Inc. v. IQX Corp.
IPR2026-00478

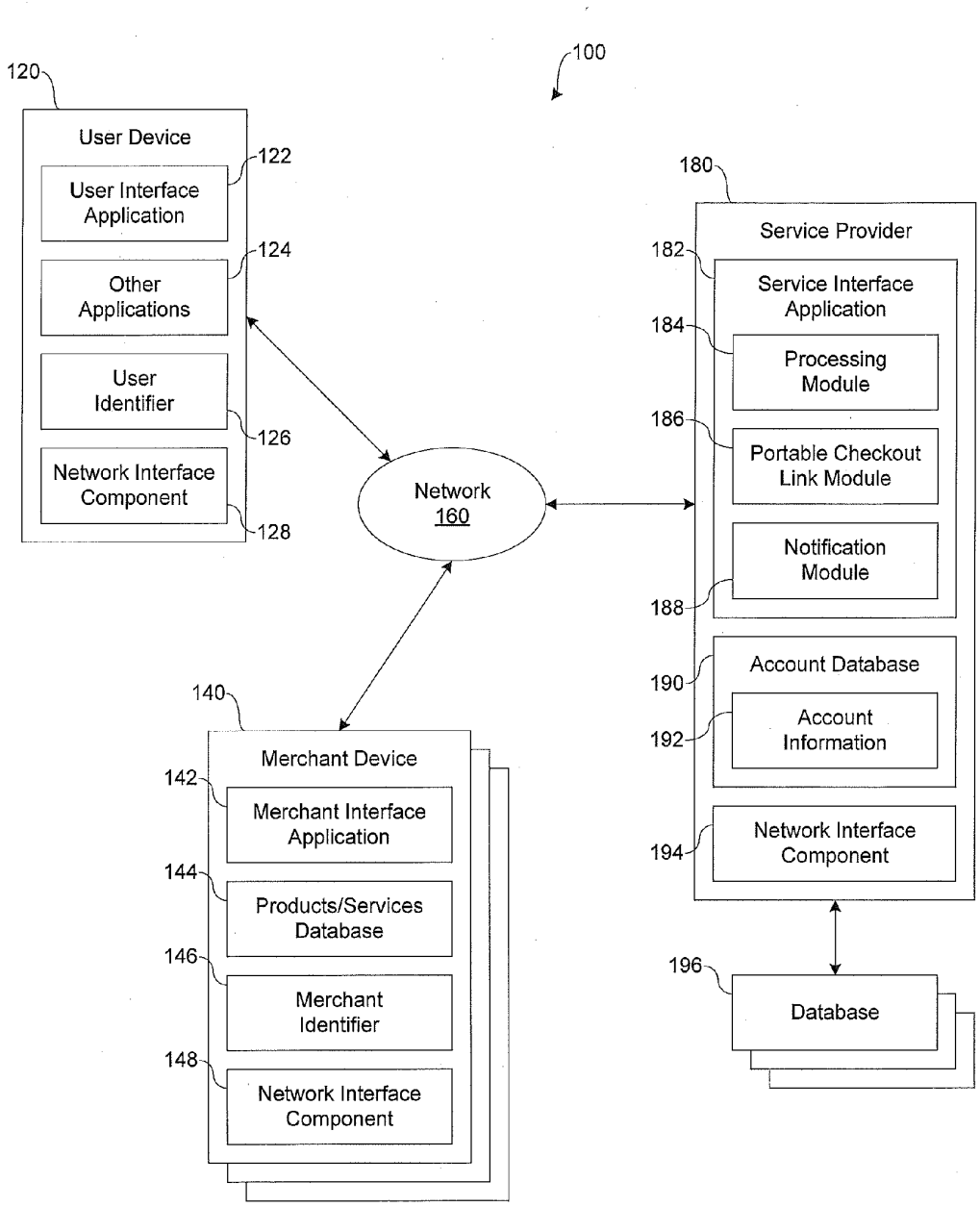

100
120
User Device
122
User Interface Application
124
Other Applications
User Identifier
126
Network Interface Component
128
Network 160
180
Service Provider
182
Service Interface Application
184
Processing Module
186
Portable Checkout Link Module
Notification Module
188
190
Account Database
192
Account Information
194
Network Interface Component
196
Database
140
Merchant Device
142
Merchant Interface Application
144
Products/Services Database
146
Merchant Identifier
148
Network Interface Component

Fig. 1

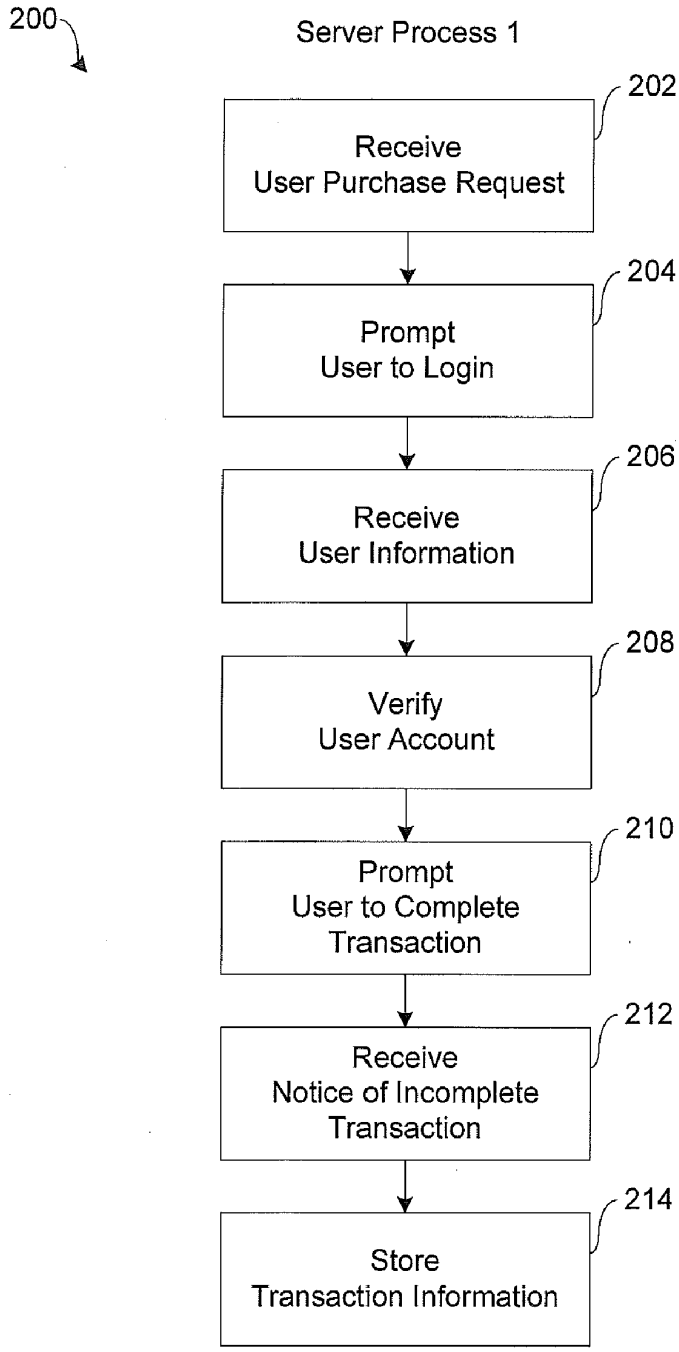

200
Server Process 1
202
Receive
User Purchase Request
204
Prompt
User to Login
206
Receive
User Information
208
Verify
User Account
210
Prompt
User to Complete
Transaction
212
Receive
Notice of Incomplete
Transaction
214
Store
Transaction Information

Fig. 2A

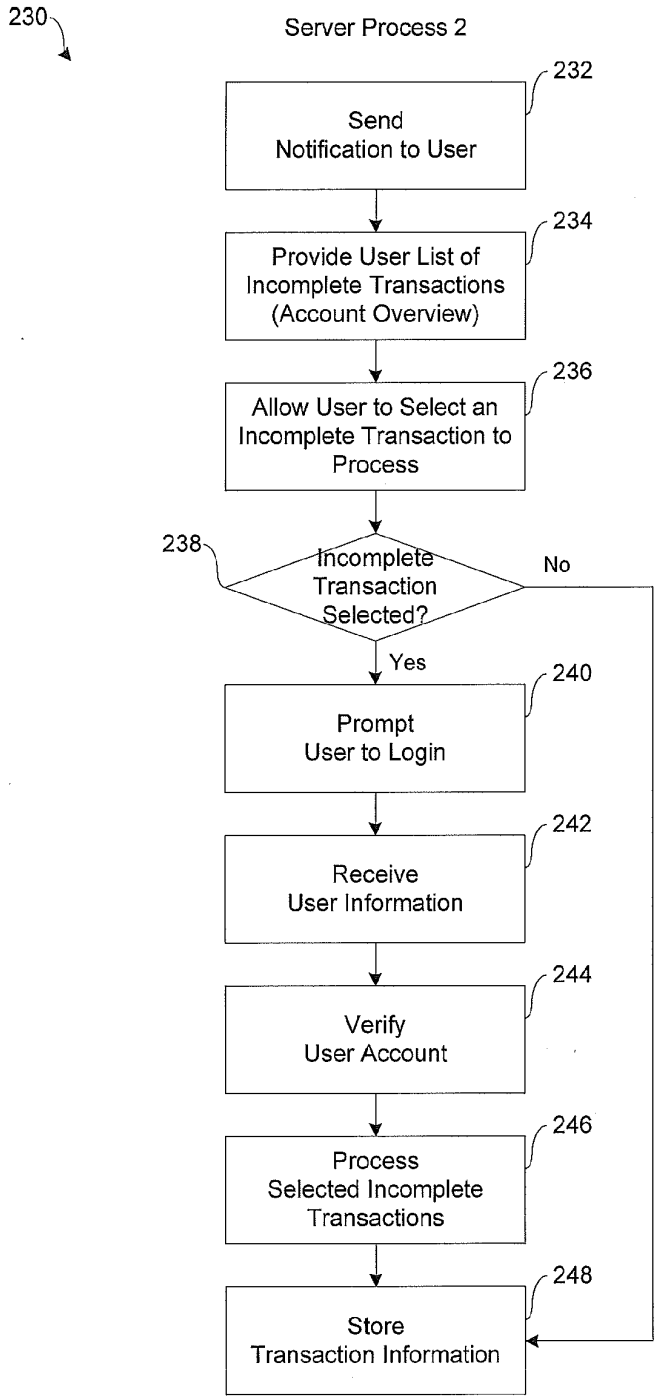

230
Server Process 2
232
Send Notification to User
234
Provide User List of Incomplete Transactions (Account Overview)
236
Allow User to Select an Incomplete Transaction to Process
238
Incomplete Transaction Selected?
No
Yes
240
Prompt User to Login
242
Receive User Information
244
Verify User Account
246
Process Selected Incomplete Transactions
248
Store Transaction Information

Fig. 2B

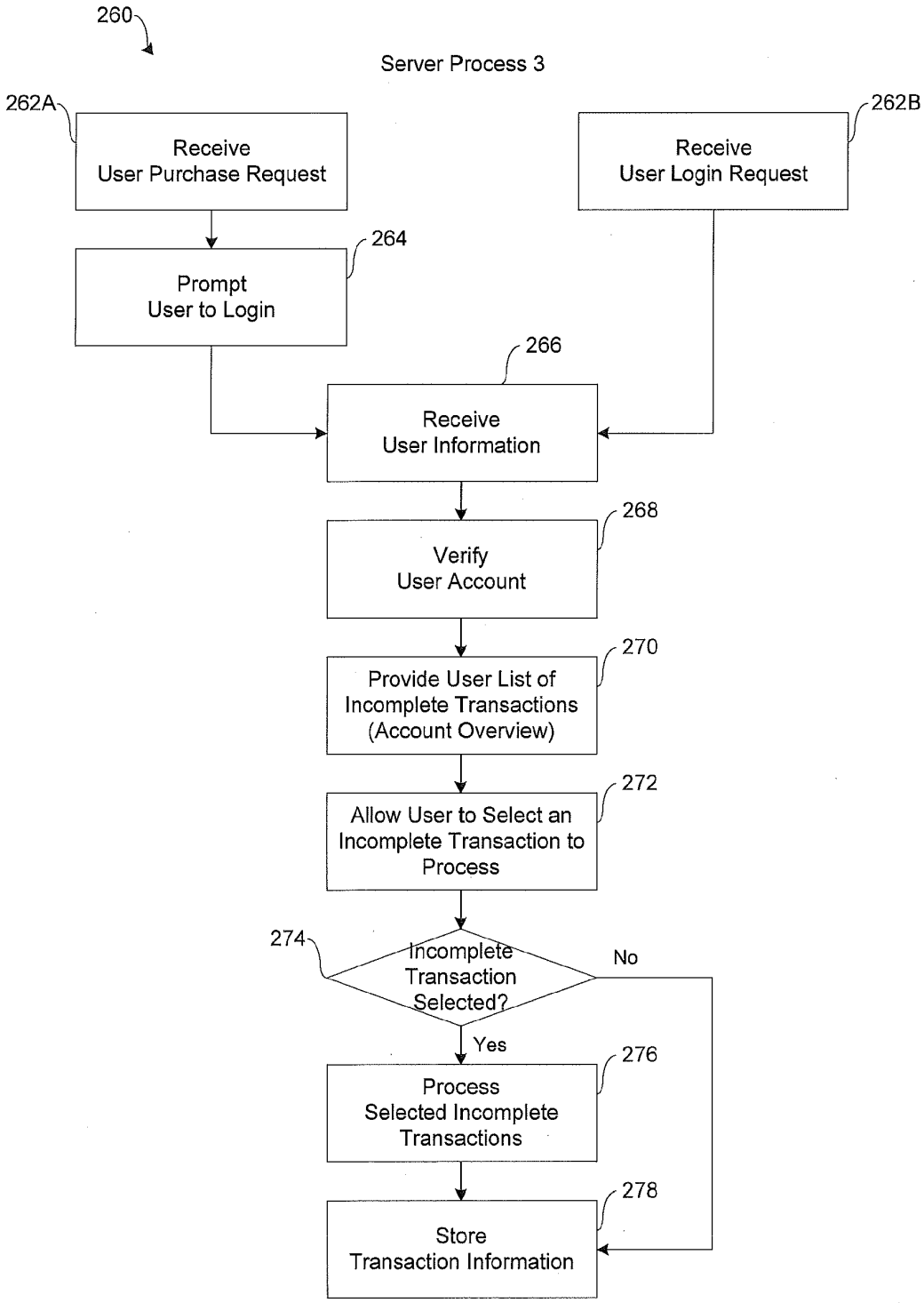

260
Server Process 3
262A
Receive
User Purchase Request
262B
Receive
User Login Request
264
Prompt
User to Login
266
Receive
User Information
268
Verify
User Account
270
Provide User List of
Incomplete Transactions
(Account Overview)
272
Allow User to Select an
Incomplete Transaction to
Process
274
Incomplete
Transaction
Selected?
No
Yes
276
Process
Selected Incomplete
Transactions
278
Store
Transaction Information

Fig. 2C

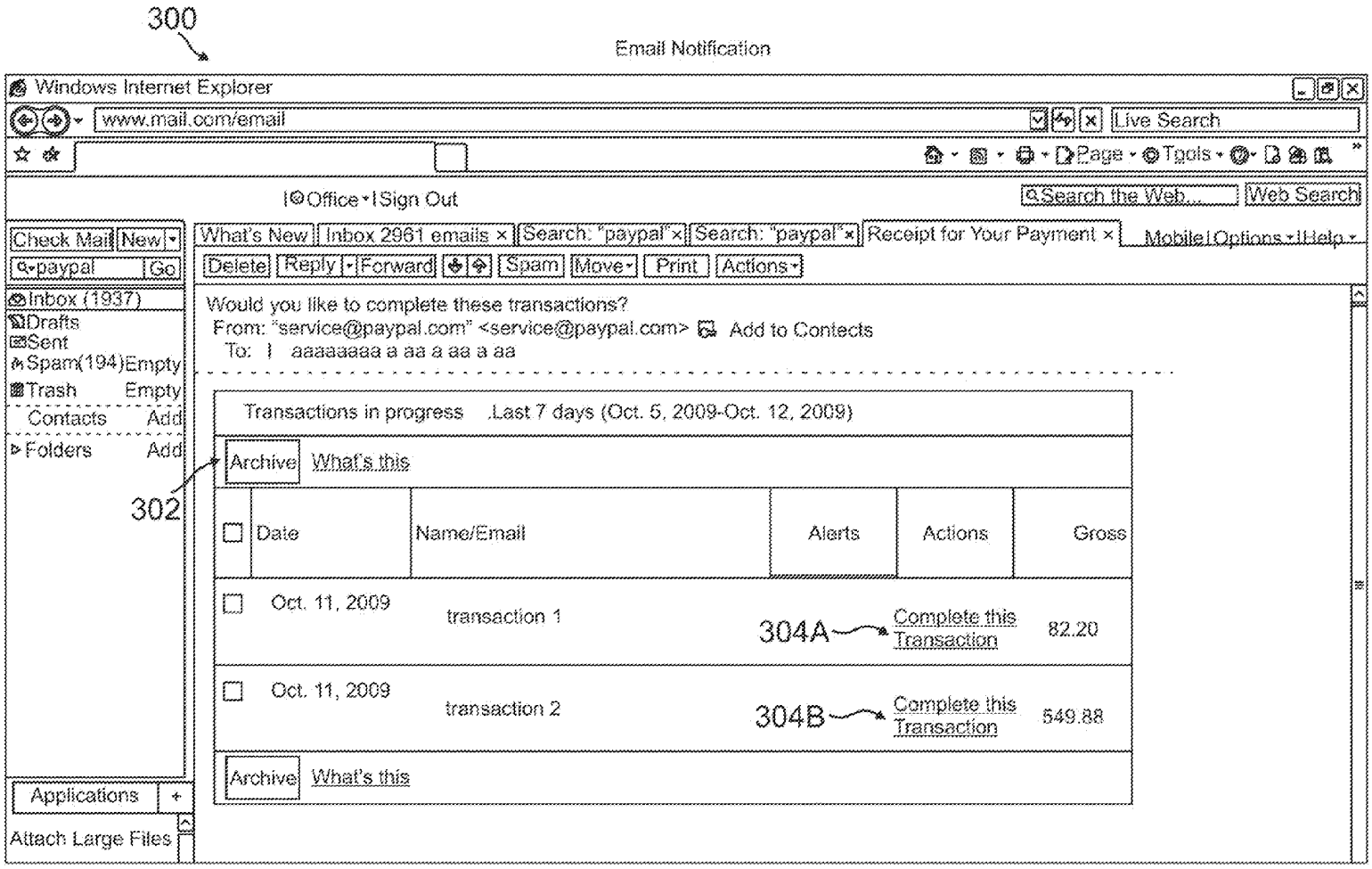

300
Email Notification
Windows Internet Explorer
www.mail.com/email
Live Search
Page
Tools
Office
Sign Out
Search the Web...
Web Search
Check Mail
New
paypal
Go
What's New
Inbox 2961 emails
Search: "paypal"
Search: "paypal"
Receipt for Your Payment
Mobile
Options
Help
Delete
Reply
Forward
Spam
Move
Print
Actions
Inbox (1937)
Drafts
Sent
Spam(194)
Empty
Trash
Empty
Contacts
Add
Folders
Add
Would you like to complete these transactions?
From: "service@paypal.com" <service@paypal.com>
Add to Contects
To: aaaaaaaaa a aa a aa a aa
Transactions in progress
Last 7 days (Oct. 5, 2009-Oct. 12, 2009)
Archive
What's this
302
Date
Name/Email
Alerts
Actions
Gross
Oct. 11, 2009
transaction 1
304A
Complete this Transaction
82.20
Oct. 11, 2009
transaction 2
304B
Complete this Transaction
549.88
Archive
What's this
Applications
Attach Large Files

FIG. 3A

310

Alert Notification

My Account | Send Money | Request Money | Merchant Services | Products & Services | Shopping

Overview Add Funds Withdraw History Resolution Center Profile

Welcome, User 1

Account Type: Premier | Status: Verified

PayPal balance: $79.74 USD — View limits

Balance Manager: Activate | Learn more

My recent activity | Payments received | Payments sent | Debit Card — View all of my transactions

My recent activity - Last 7 days (Oct. 5, 2009-Oct. 12, 2009)

Archive What's this — Payment status glossary

☐	Date		Type	Name/Email	Payment status	Details	Order status/Actions	Gross
☐	Oct. 11, 2009	$	Debit Card Signature Purchase To	Store 1 00015495 SCOTTSDALE AZ	Completed	Details		-$138.43 USD
☐	Oct. 11, 2009	$	Debit Card Signature Purchase To	EBAY SAN JOSE CA	Pending	Details		-$9.76 USD
☐	⊞Oct. 10, 2009		Payment To	Store 3	Completed	Details		-$1.99 USD

312

My transactions in progress - Last 7 days (Oct. 5, 2009-Oct. 12, 2009) — What's this?

Archive What's this

These are unfinished transactions that you can still complete

☐	Date	Name/Email	Alerts	Actions	Gross
☐	Oct. 11, 2009	SuperDuper High End Electronics, San Jose	Merchant almost sold out	Complete this Transaction	-$138.43 USD
☐	Oct. 11, 2009	MyFavorite Online Bookseller, Cleveland, OH	Merchant has reduced prices	Complete this Transaction	-$9.76 USD

Archive What's this

316A 314A 316B 314B

FIG. 3B

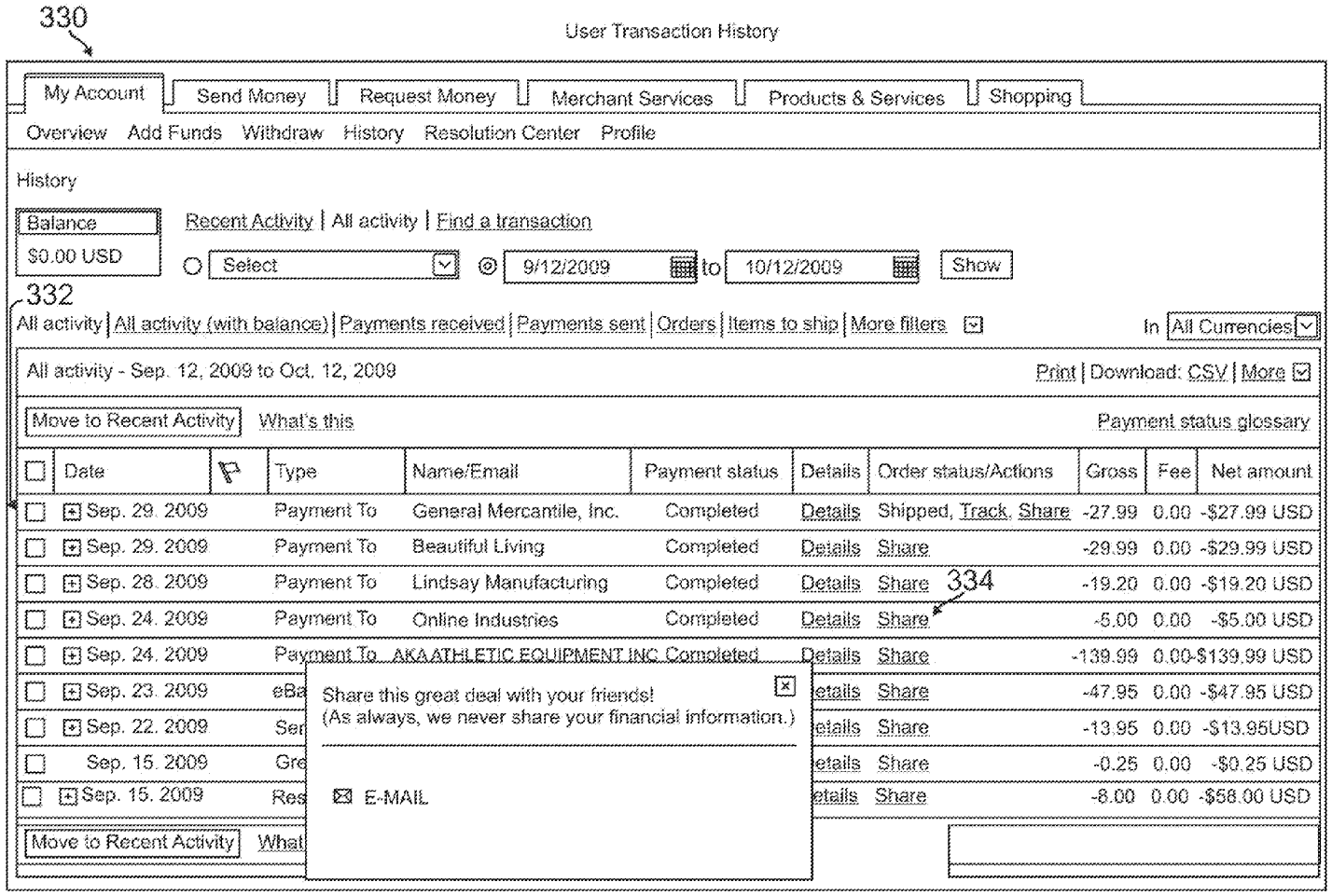

330
User Transaction History
My Account
Send Money
Request Money
Merchant Services
Products & Services
Shopping
Overview
Add Funds
Withdraw
History
Resolution Center
Profile
History
Balance
$0.00 USD
Recent Activity | All activity | Find a transaction
Select
9/12/2009
to
10/12/2009
Show
332
All activity | All activity (with balance) | Payments received | Payments sent | Orders | Items to ship | More filters
In All Currencies
All activity - Sep. 12, 2009 to Oct. 12, 2009
Print | Download: CSV | More
Move to Recent Activity
What's this
Payment status glossary
Date
Type
Name/Email
Payment status
Details
Order status/Actions
Gross
Fee
Net amount
Sep. 29. 2009 Payment To General Mercantile, Inc. Completed Details Shipped, Track, Share -27.99 0.00 -$27.99 USD
Sep. 29. 2009 Payment To Beautiful Living Completed Details Share -29.99 0.00 -$29.99 USD
Sep. 28. 2009 Payment To Lindsay Manufacturing Completed Details Share -19.20 0.00 -$19.20 USD
334
Sep. 24. 2009 Payment To Online Industries Completed Details Share -5.00 0.00 -$5.00 USD
Sep. 24. 2009 Payment To AKA ATHLETIC EQUIPMENT INC Completed Details Share -139.99 0.00 -$139.99 USD
Sep. 23. 2009 Share -47.95 0.00 -$47.95 USD
Sep. 22. 2009 Share -13.95 0.00 -$13.95USD
Sep. 15. 2009 Share -0.25 0.00 -$0.25 USD
Sep. 15. 2009 Share -8.00 0.00 -$58.00 USD
Share this great deal with your friends!
(As always, we never share your financial information.)
E-MAIL
Move to Recent Activity

FIG. 3C

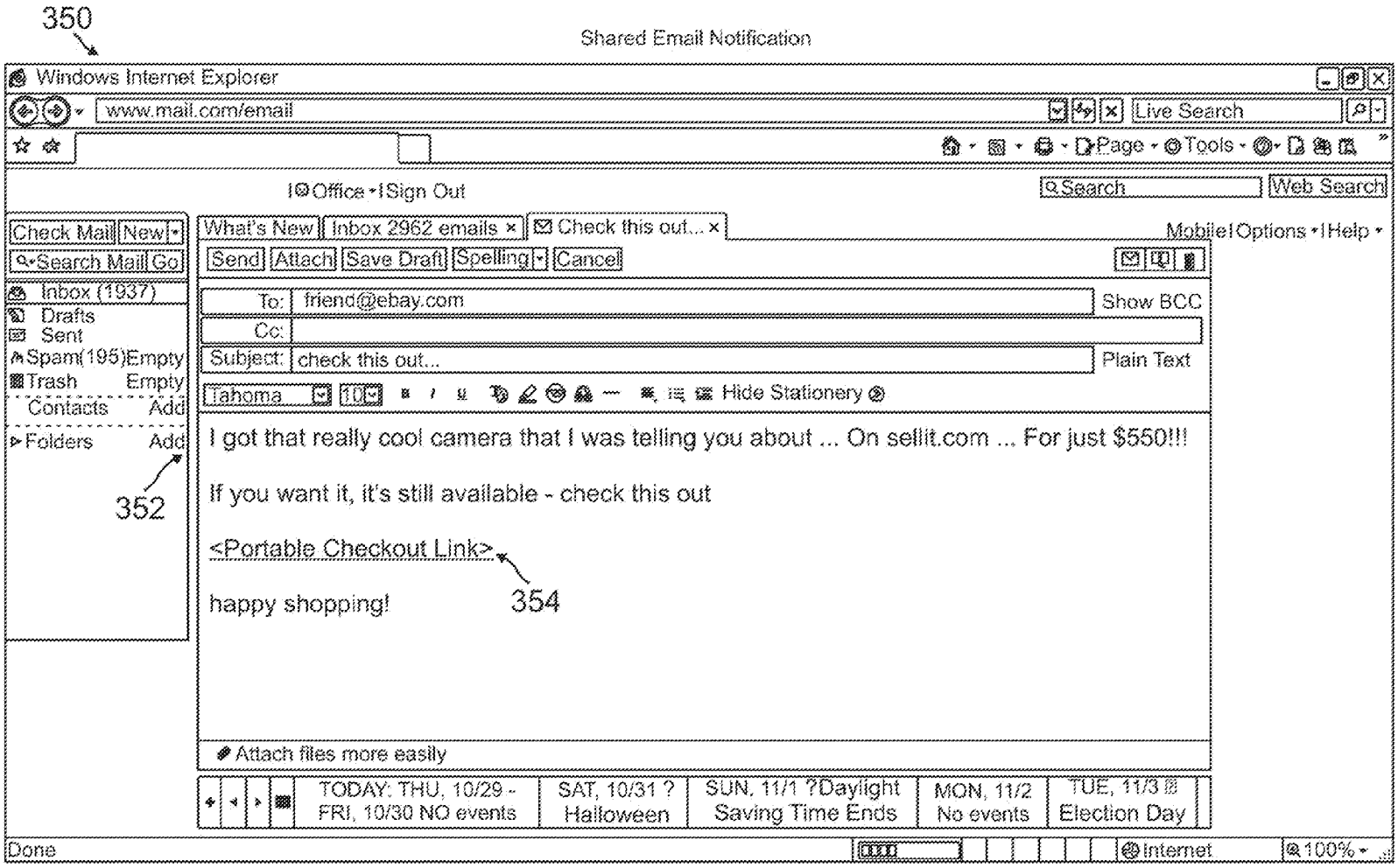

350
Shared Email Notification
Windows Internet Explorer
www.mail.com/email
Live Search
Page
Tools
Office
Sign Out
Search
Web Search
Check Mail
New
Search Mail
Go
Inbox (1937)
Drafts
Sent
Spam(195)
Empty
Trash
Empty
Contacts
Add
Folders
Add
352
What's New
Inbox 2962 emails
Check this out...
Mobile
Options
Help
Send
Attach
Save Draft
Spelling
Cancel
To:
friend@ebay.com
Show BCC
Cc:
Subject:
check this out...
Plain Text
Tahoma
10
Hide Stationery
I got that really cool camera that I was telling you about ... On sellit.com ... For just $550!!!
If you want it, it's still available - check this out
<Portable Checkout Link>
354
happy shopping!
Attach files more easily
TODAY: THU, 10/29 - FRI, 10/30 NO events
SAT, 10/31 ? Halloween
SUN, 11/1 ?Daylight Saving Time Ends
MON, 11/2 No events
TUE, 11/3 Election Day
Done
Internet
100%

FIG. 3D

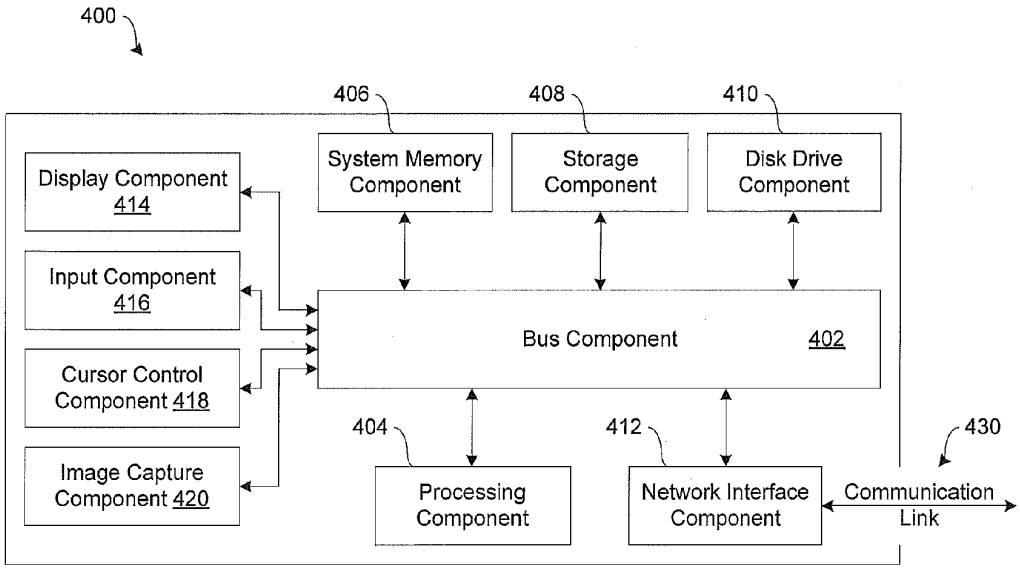

400
406
408
410
System Memory Component
Storage Component
Disk Drive Component
Display Component 414
Input Component 416
Cursor Control Component 418
Image Capture Component 420
Bus Component
402
404
412
430
Processing Component
Network Interface Component
Communication Link

Fig. 4

SYSTEMS AND METHODS FOR PROCESSING INCOMPLETE TRANSACTIONS OVER A NETWORK

BACKGROUND

[0001] 1. Technical Field

[0002] The present invention generally relates to facilitating electronic commerce over a network and, more particularly, to processing incomplete transactions over a network.

[0003] 2. Related Art

[0004] In online financial transactions, users search for and purchase products and services through electronic communications with online merchants over electronic networks, such as the Internet. During the course of these purchase transactions, users may provide payment to a transaction service provider in various ways including, for example, credit cards, electronic fund transfers, and other payment techniques offered by the service providers.

[0005] Typically, when shopping at a particular website, users select items to purchase by clicking on a link for a specific item. The selected items are placed on reserve in some type of virtual shopping cart. When done shopping, the user is directed to checkout and provide some form of payment for the selected items.

[0006] At this point in the process, the user may withdraw from purchase or abandon the checkout prior to payment. When this occurs, the shopping cart and any reserved items may be deleted because the user failed to complete the purchase transaction. As such, this usually results in lost revenue for the online merchant and the payment service provider.

[0007] Thus, there currently exists a need to improve the process of handling shopping carts and reserved items in online purchase transactions.

SUMMARY

[0008] Embodiments of the present disclosure provide systems and methods for facilitating electronic commerce including processing incomplete transactions over a network. In one embodiment, the system and method includes communicating with a user via a user device and a merchant via a merchant device over the network, storing an incomplete purchase transaction between the user and the merchant, generating a portable checkout link to the incomplete purchase transaction, providing the portable checkout link to the user over the network, allowing the user to select the incomplete purchase transaction for processing, and processing the incomplete purchase transaction upon user selection.

[0009] In various implementations, the system and method may include notifying the user of the incomplete purchase transaction over the network. For example, notifying the user may include sending a notification to the user over the network including at least one of an email, an alert, a text message, and a voice message. In another example, notifying the user may include providing a list of one or more incomplete purchase transactions to the user over the network, wherein each incomplete purchase transaction in the list includes a corresponding portable checkout link associated therewith.

[0010] In one implementation, the system and method may include determining whether the user selects at least one incomplete purchase transactions from the list for processing. The determination may be based on user selection of the portable checkout link related to the selected incomplete purchase transaction. The incomplete purchase transaction may be stored as part of an account related to the user. The account related to the user may include information related to the user including identification information. The system and method may include storing information related to a completed purchase transaction after processing the user selected incomplete purchase transaction between the user and the merchant.

[0011] These and other aspects of the present disclosure will be more readily apparent from the detailed description of the embodiments set forth below taken in conjunction with the accompanying drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0012] FIG. **1** shows a block diagram of a system adapted to facilitate electronic commerce over a network, in accordance with embodiments of the present disclosure.

[0013] FIGS. **2**A-**2**C show various methods for facilitating electronic commerce over a network, in accordance with embodiments of the present disclosure.

[0014] FIG. **3**A shows an email notification, in accordance with embodiments of the present disclosure.

[0015] FIG. **3**B shows an alert notification, in accordance with embodiments of the present disclosure.

[0016] FIG. **3**C shows a user transaction history, in accordance with embodiments of the present disclosure.

[0017] FIG. **3**D shows a shared email notification, in accordance with embodiments of the present disclosure.

[0018] FIG. **4** is a block diagram of a computer system suitable for implementing one or more embodiments of the present disclosure.

[0019] Embodiments of the invention and their advantages are best understood by referring to the detailed description that follows. It should be appreciated that like reference numerals are used to identify like elements illustrated in one or more of the figures, wherein showings therein are for purposes of illustrating embodiments of the invention and not for purposes of limiting the same.

DETAILED DESCRIPTION

[0020] Embodiments of the present disclosure provide systems and methods for facilitating electronic commerce including processing incomplete transactions over a network. For example, a user or buyer may fail to complete or abandon a purchase transaction during checkout processing. In this instance, a service provider capable of processing purchase transactions is adapted to notify and/or message the user or buyer to complete incomplete or abandoned purchase transactions, and with user permission, the service provider is adapted to process incomplete or abandoned transactions selected by the user for processing. In another example, the user or buyer may be notified via periodic message alerts (e.g., email, text, voice, etc.) of purchase transactions in progress and/or alerts in account overview pages when logged in to the service provider. These and other aspects of the present disclosure are described in greater detail herein.

[0021] FIG. **1** shows one embodiment of a system **100** for facilitating electronic commerce including processing incomplete transactions, over a network **160**, such as the Internet and/or a mobile communication network. As shown in FIG. **1**, the system **100** includes a user device **120** (e.g., a client or customer device) adapted to interface with one or more merchant devices **140** (e.g., business entities proffering items, products, and/or services for purchase), and a service

provider **160** (e.g., a network based transaction service provider, such as a payment and settlement transaction provider) over the network **160**.

[0022] The network **160**, in one embodiment, may be implemented as a single network or a combination of multiple networks. For example, the network **160** may include a wireless telecommunications network (e.g., cellular telephone network) adapted for communication with one or more other communication networks, such as the Internet. In other examples, the network **160** may include the Internet, one or more intranets, landline networks, wireless networks, and/or one or more other appropriate types of communication networks. As such, in various implementations, the user device **120**, the one or more merchant devices **140**, and the service provider **180** may be associated with a particular link (e.g., a link, such as a URL (Uniform Resource Locator) to an IP (Internet Protocol) address).

[0023] The user device **120**, in various embodiments, may be implemented using any appropriate combination of hardware and/or software configured for wired and/or wireless communication over the network **160**. In one embodiment, the user device **120** may be implemented as a mobile communication device (e.g., wireless cellular phone) adapted for communication with the network **160**. In other embodiments, the user device **120** may be implemented as a personal computer (PC), a personal digital assistant (PDA), a notebook computer, and/or various other generally known types of wired and/or wireless computing devices for communication with the network **160**. It should be appreciated that the user device **120** may be referred to as a client device or a customer device without departing from the scope of the present disclosure.

[0024] The user device **120**, in one embodiment, includes a user interface application **122**, which may be utilized by a user to conduct network based financial transactions (e.g., remote network based electronic commerce) with the one or more merchant devices **140** and/or the service provider **180** over the network **160**. In various implementations, the user interface application **122** may be implemented as a network commerce application and/or a mobile commerce application to initiate, track, manage, and store data and information related to remote network based electronic commerce for viewing, searching, and/or purchasing items, products, and/or services over the network **160**. In one aspect, the user device **120** may be linked to an account with the service provider **160** for direct and/or automatic settlement of purchase requests between a user and the one or more merchant devices **140** via the user interface application **122**.

[0025] In one embodiment, the user interface application **122** comprises a software program, such as a graphical user interface (GUI), executable by a processor that is configured to interface and communicate with the one or more merchant devices **140** and/or the service provider **180** via the network **160**. In one implementation, the user interface application **122** comprises a browser module adapted to provide a network interface to browse information available over the network **160**. For example, the user interface application **122** may be implemented, in part, as a web browser to view and search information available over the network **160**. In another example, the user is able to access merchant websites of the one or more merchant devices **140** over the network **160** to view, search, and select items, products, and/or services for purchase, and the user is able to purchase selected items, products, and/or services from the one or more merchant devices **140** via the service provider **180**. As such, the user may conduct network based financial transactions (e.g., electronic commerce) with the one or more merchant devices **140** via the service provider **180**.

[0026] In one embodiment, upon user instruction, the user interface application **122** may be installed and/or run on the user device **120**. The user may run the user interface application **122** on the user device **120** to access the service provider **180** via the network **160**. In one aspect, upon installation and/or execution of the user interface application **122**, the user may be prompted to establish a user account for login with the service provider **180**, wherein the user may use the user interface application **122** and the user device **120** to access the service provider **180** via the network **160**. When establishing a user account, the user may be asked to provide personal information, such as name, address, phone number, etc., and financial information, such as banking information, credit card information, etc. In another aspect, referring to FIG. **1**, information related to the user may be packaged as a user identifier **126**, which is described in greater detail herein.

[0027] The user device **120**, in various embodiments, may include other applications **124** as may be desired in one or more embodiments of the present disclosure to provide additional features available to the user. In various examples, such other applications **124** may include security applications for implementing user-side security features, programmatic client applications for interfacing with appropriate application programming interfaces (APIs) over the network **160**, and/or various other types of generally known programs and/or software applications. In various other examples, other applications **124** may interface with the user interface application **122** for improved efficiency and convenience. In one example, files, data, and/or information may be imported from various types of accounting software (e.g., a spreadsheet application) directly into the user interface application **122** for improved tracking of payments and settlements related to purchases via the network **160**. Accordingly, it should be appreciated that the user interface application **122** and each of the other applications **124** are adapted to make API calls over the network **160**.

[0028] The user device **120**, in various embodiments, may include the user identifier **126**, which may be implemented as operating system registry entries, cookies associated with the user interface application **122**, identifiers associated with hardware of the user device **120**, and/or various other appropriate identifiers. The user identifier **126** may include one or more attributes related to the user, such as personal information related to the user (e.g., one or more user names, passwords, photograph images, biometric ids, addresses, phone numbers, etc.) and banking information (e.g., one or more banking institutions, credit card issuers, user account numbers, security data and information, etc.). In various aspects, the user identifier **126** may be passed with user transaction requests to the service provider **180** via the network **160**, and the user identifier **126** may be utilized by the service provider **180** to associate the user with a particular user account maintained by the service provider **180**.

[0029] The user device **120**, in one embodiment, may include a network interface component (NIC) **128** adapted for communication with the network **160**. In various implementations, the network interface component **128** may comprise a wireless communication component, such as a mobile cellular component, a wireless broadband component, a wireless satellite component, or various other types of wireless com-

munication components including radio frequency (RF), microwave frequency (MWF), and/or infrared frequency (IRF) components adapted for communication with the network **160**. In various other implementations, the network interface component **128** may be adapted to interface with a DSL (e.g., Digital Subscriber Line) modem, a PSTN (Public Switched Telephone Network) modem, an Ethernet device, and/or various other types of wired and/or wireless network communication devices adapted for communication with the network **160**.

[0030] The one or more merchant devices **140**, in one embodiment, may be implemented using any appropriate combination of hardware and/or software configured for wired and/or wireless communication over the network **160**. In various implementations, the merchant devices **140** may be implemented as a network server, a personal computer (PC), a personal digital assistant (PDA), a notebook computer, and/or various other generally known types of wired and/or wireless computing devices for communication with the network **160**. In another implementation, the merchant device **140** may be implemented as a mobile device (e.g., a wireless cellular phone) adapted for communication with the network **160**.

[0031] In another embodiment, the one or more merchant devices **140** may be maintained as one or more network servers by one or more business entities (e.g., merchant sites, resource information sites, utility sites, real estate management sites, social networking sites, etc.) offering various items, products, and/or services for purchase and payment, which may need registration of user identity information as part of offering the items, products, and/or services to one or more users over the network **160**. Accordingly, each of the one or more merchant devices **140** may comprise at least one network based server in communication with the network **160** having a merchant interface application **142** and a products/services database **144** for presenting and identifying one or more available items, products, and/or services for purchase via the network **160**, which may be made available to the user device **120** for viewing and purchase by the user. In one aspect, each of the network based merchant servers may be accessible via a mobile communication device (e.g., wireless cellular phone) for management purposes. For example, each merchant entity may remotely access and interact with their own network based merchant server via a mobile communication device for management purposes.

[0032] In one embodiment, each of the merchant devices **140** includes the merchant interface application **142**, which may be utilized by the one or more merchant devices **140** to conduct network based financial transactions (e.g., remote network commerce, such as shopping, purchasing, bidding, etc.) with one or more users via one or more user devices **120** and/or the service provider **180** over the network **160**. For example, the merchant interface application **142** may be implemented as an electronic commerce application to initiate, track, manage, and store data and information related to remote network based commerce for the viewing, searching, and purchasing of items, products, and/or services over the network **160**. In one aspect, each merchant device **140** may be linked to an account with the service provider **160** for direct and/or automatic settlement of purchase requests between each merchant **140** and one or more users via the merchant interface application **142**.

[0033] In one implementation, the merchant interface application **142** comprises a software program, such as a GUI, executable by a processor configured to interface and communicate with one or more users via one or more user devices **120** and/or the service provider **180** via the network **160**. In another implementation, merchant interface application **142** comprises a network interface module that makes information available to the user device **120** over the network **160**. For example, the merchant interface application **142** may be implemented, in part, as a website manager to provide, list, and present information to the user device **120** via the network **160**. In another example, each merchant **140** is capable of providing one or more network based merchant websites to allow viewing, searching, and selecting of items, products, and/or services for purchase by the user via the user device **120**, and the user is able to purchase items, products, and/or services from the one or more merchant devices **140** via the merchant websites and the service provider **180**. As such, each of the merchant devices **140** may conduct financial transactions with the user via the merchant interface application **142** and the service provider **180**.

[0034] In various implementations, the merchant interface application **142** may include a marketplace application, which may be configured to provide transaction information related to the products and/or services database **144** to the user interface application **122** of the user device **120** via the network **160**. For example, the user may interact with the merchant **140** via the marketplace application through the user interface application **122** over the network **160** to search and view various items, products, and/or services available for purchase from the products/services database **144**. In one implementation, the marketplace application may include a checkout module configured to facilitate online financial transactions by the user of items, products, and/or services identified by each merchant server **140** for purchase, and the checkout module may be configured to accept payment from the user over the network **160** and process the payment via interaction with the service provider **180**.

[0035] In one implementation, upon merchant instruction, the merchant interface application **142** may be installed and/or run on each merchant device **140**. Each merchant may run the merchant interface application **142** on their merchant device **140** to access service provider **180** via the network **160**. In one aspect, upon installation and/or execution of the merchant interface application **142**, each merchant may be prompted to establish a merchant account for login with the service provider **180**, wherein each merchant may use merchant interface application **142** and merchant device **140** to access the service provider **180** via the network **160**. In one aspect, when establishing a merchant account, each merchant may be asked to provide business information, such as business name, address, phone number, etc., and financial information, such as banking information, credit card information, etc. In another aspect, information related to the merchant may be packaged as a merchant identifier **146**, which is described in greater detail herein.

[0036] In various implementations, the merchant interface application **142** may include one or more other applications as may be desired to provide additional features available to the merchant. In various examples, such other applications may include security applications for implementing user-side security features, programmatic applications for interfacing with appropriate application programming interfaces (APIs) over the network **160**, and/or various other types of generally known programs and/or software applications. In various other examples, files, data, and/or information may be

imported from various types of accounting software (e.g., a spreadsheet application) directly into the merchant interface application **142** for improved tracking of payments and settlements related to electronic commerce via the network **160**. As such, it should be appreciated that merchant interface application **142** and any other application may be adapted to make API calls over the network **160**.

[0037] Each of the merchant devices **140**, in various embodiments, may include at least one merchant identifier **146**, which may be included as part of the one or more items, products, and/or services made available for purchase so that, e.g., particular items, products, and/or services are associated with particular merchant devices **140**. In one implementation, the merchant identifier **146** may include one or more attributes and/or parameters related to the merchant, such as business and/or banking information. For example, the merchant identifier **146** may be passed from each particular merchant **140** to the service provider **180** when the user selects an item, product, and/or service for holding, monitoring, and/or purchasing from each particular merchant **140**. In one aspect, the merchant identifier **146** may be used by the service provider **180** to associate particular items, products, and/or services selected for purchase with a particular merchant account maintained by the service provider **180**. In another aspect, the user may conduct financial transactions (e.g., selection, monitoring, purchasing, and/or providing payment for items, products, and/or services) with each merchant server **140** via the service provider **180** over the network **160**.

[0038] In various embodiments, each of the one or more business entities having a related merchant server **140** may need to establish at least one merchant account with the service provider **180**. When establishing a merchant account, each of the one or more business entities may need to provide business information, such as owner name, owner address, social security number, date of birth, phone number, email address, etc., and financial information, such as banking information, merchant account information, credit card information, payment processing information, etc.

[0039] In one embodiment, each merchant device **140** includes at least one network interface component (NIC) **148** adapted for communication with the network **160**. For example, in various implementations, the network interface component **148** may comprise a wireless communication component, such as a mobile cellular component, a wireless broadband component, a wireless satellite component, or various other types of wireless communication components including radio frequency (RF), microwave frequency (MWF), and/or infrared frequency (IRF) components adapted for communication with the network **160**. In various other implementations, the network interface component **148** may be adapted to interface with a DSL (e.g., Digital Subscriber Line) modem, a PSTN (Public Switched Telephone Network) modem, an Ethernet device, and/or various other types of wired and/or wireless network communication devices adapted for communication with the network **160**.

[0040] The service provider **180**, in one embodiment, may be maintained by a network based transaction processing entity, which may provide processing for network based transactions including online information and/or financial transactions on behalf of the user via the user device **120** and/or each merchant device **140**. As shown in FIG. **1**, the service provider **180** includes a service interface application **182**, which may be adapted to interact with the user device **120** and/or each merchant **140** over the network **160** to facilitate electronic commerce including processing incomplete transactions. In one example, a financial transaction may include the selection, purchase, and/or payment of items, products, and/or services by the user via the user device **120** from one or more merchant devices **140**. In one embodiment, the service provider **180** may be provided by network based transaction processing entity, such as PayPal, Inc. and/or eBay of San Jose, Calif., USA.

[0041] The service interface application **182**, in one embodiment, is adapted to utilize a processing module **184** to process purchases and/or payments for financial transactions between the user device **120** and each of the merchant devices **140**. In one implementation, the processing module **184** is adapted to resolve financial transactions through validation, delivery, and settlement. For example, the service interface application **182** in conjunction with the processing module **184** is adapted to settle indebtedness on behalf of a user between the user device **120** and each of the merchant devices **140**, wherein accounts may be directly and/or automatically debited and/or credited, respectively, of monetary funds in a manner as accepted by the banking industry.

[0042] The service interface application **182**, in one embodiment, is adapted to utilize a portable checkout link module **186** adapted to provide user selectable links to incomplete and/or abandoned transactions. In one implementation, a portable checkout link (PCL) comprises a service provider checkout of a specific, loaded shopping cart having a state that may be frozen, saved, and/or accessed using a link, such as a URL link. In one aspect, the shopping cart may be associated with a specific merchant **140** and include a defined set of SKUs, SKU quantities, and SKU prices. In another aspect, a PCL may refer to an incomplete and/or abandoned checkout. In still another aspect, the PCL may reference a completed checkout or purchase transaction.

[0043] In one implementation, selecting (e.g., clicking on) a PCL may cause the shopping cart associated with the PCL to be regenerated similar to its original state but include various information related to inventory availability and price updates as provided by the merchant that generated the shopping cart. The PCL may be given an expiration date. If the PCL has not expired, the user may be directed to a checkout login page provided by the service provider **180**. The user may log in to the service provider **180** to review one or more checkout pages, incomplete transactions, and/or abandoned transactions. If the PCL has expired, the user may be directed to a checkout login page provided by the merchant **140**.

[0044] In one implementation, a unique URL with a token (i.e., PCL) may be generated when a user checks out from a merchant site to pay with the service provider **180**. In one aspect, the unique URL or PCL may be used once and only once to checkout. The PCL may be valid for any amount of time (e.g., up to 72 hours), and the expiration parameter may be configurable by the merchant **140**. As such, the expiration time for the PCL may be set by the merchant **140** to any desirable amount of time. The expired PCL may be re-validated (i.e., given a new validation time) by providing an API call to the merchant **140**, which may lengthen or shorten the expiration life of the PCL.

[0045] In one implementation, the PCL directs the user to a portable shopping cart or a persistent shopping cart, wherein the user may return to the portable shopping cart or the persistent shopping cart at another time to proceed or complete a checkout or purchase transaction. In one aspect, the user may have withdrawn or abandoned the checkout or purchase trans-

action prior to completion or payment for selected items, products, and/or services. As such, the PCL module **186** provides a mechanism for the user to return and access a previously abandoned or incomplete purchase transaction by selecting the PCL from some form of notification, such as email or login alert, and then proceed with checkout from where the user previously left-off, withdrew, abandoned, or failed to complete the checkout.

[0046] In one aspect, a portable shopping cart refers to a mechanism where PCLs are passed between users as a batch, which may be referred to as a portable watchlist. In another aspect, a persistent shopping cart refers to a mechanism where a user having selections in a shopping cart with a first merchant may end the shopping session, and when starting another session with another merchant, the shopping cart may persist. As such, embodiments of the present disclose two separable aspects: portability and persistence.

[0047] In one implementation, the PCL module **186** may be adapted to coordinate with a notification module **188** to alert the user when the merchant **140** is about to run out of stock for the one or more items in the shopping cart or checkout referenced by the PCL. The user may be alerted when the price for the items in the shopping cart or checkout change, such as a price reduction. The user may be alerted if the merchant **140** provides a discount or coupon to complete the checkout.

[0048] In another implementation, the PCL module **186** may be adapted to share, broadcast, and/or publish PCLs to other users on the network **160**. For example, if the PCL appears to have considerable value, the user may complete the purchase transaction and notify (e.g., email, tweet, text, voice message, etc.) other users about the items with a PCL to a similar purchase transaction. In another example, the user may add the PCL to a social networking site (e.g., twitter, facebook, myspace, etc.). As such, other users (e.g., friends, relatives, etc.) receiving the PCL may select or click on the PCL to view and purchase the items linked to the PCL (e.g., the user's purchases).

[0049] In another example, the user (e.g., an expert, writer, guru, etc.) may write an article about a particular item and create a PCL with a pre-fabricated shopping cart having the particular item ready to be checked out by other users. In another example, the user may create an item registry (e.g., a gift registry, wedding registry, etc.) having a plurality of PCLs that reference items from a plurality of different merchants **140**. Once an item is selected, the item registry may be adapted to create a PCL with a pre-fabricated shopping cart having the selected item ready to be checked out by the selecting user. As such, in one aspect, the service provider **180** may be adapted to process referral purchase transactions via published PCLs and further generate affiliate fees or lead generation fees to increase revenue.

[0050] In another implementation, the user may create a pre-authorization for shared PCLs, wherein review of the shopping cart or checkout may be shared before the completion of purchase transactions with at least one other person, such as a supervisor, co-worker, other employee, subordinate, etc. For example, in a business case of a pre-screened shopping cart, an employee or subcontractor may select a list of materials and send the PCL linked to the list to a supervisor for approval. In another example, the supervisor may pre-approve items, categories, and merchants for payment from an account to a particular amount. In this case, the supervisor may send a pre-approved shopping cart having pre-approved PCLs to the employee, agent, or subcontractor to exercise further discretion for purchases.

[0051] In another example, a PCL shopping cart may be shared before transactions with a plurality of other users for pre-transaction aggregated commitments. In one implementation, a pre-screened shopping cart or PCL may be sent to multiple contributors with a commitment to partially pay, such as a partial authorization code that commits partial payment conditional on the next one or more users adding the remainder of payment.

[0052] In another implementation, partial chain payments may be passed around (e.g., in chain or as a broadcast) until the full amount is reached, some time limit is triggered, and/or some other related event occurs. In one aspect, chain commitments may sum previous commitments, and broadcasted commitments may reference a central record.

[0053] In another implementation, commitments may be made up of a combination of percentages with actual payment calculated by the number of contributors. For example, the commitment may be initially established with 10 users to commit 10% by a certain time, which sums to 100% for 10 users. However, 20 users actually commit, and therefore, the percentage by each contributor is altered to 5%, which sums to 100% for 20 users. In one aspect, this may encourage other users to contribute to reduce the amount each contributor has to finally contribute. For example, a concert costing $50,000 with more than a 1000 contributors results in a dynamic price distribution of less than $50 per person.

[0054] In another implementation, the PCL module **186** may be adapted to protect the privacy of the user. For example, when a PCL is revived, the PCL module **186** may be adapted to create a shopping cart with item information but leave out personally identifiable information (PII) including shipping, billing, and financial information. In the gift registry use case, the user may be given a choice to publish PCLs with pre-filled information, such as shipping address. In another example, affiliate links and revenue share added parameters may be encoded in a user-specific or transaction-specific manner to avoid identifying the affiliate and/or information related to the affiliate.

[0055] The service interface application **182**, in one embodiment, is adapted to utilize a notification module **188**, which is adapted to notify users of incomplete and/or abandoned transactions. In one implementation, the service interface application **182** in combination with the notification module **188** is adapted to notify or alert the user of incomplete and/or abandoned transactions with notifications or alerts (e.g., email message, text message, voice message, etc.) having one or more selectable links (e.g., PCLs) to the incomplete and/or abandoned transactions. In another implementation, if the user selects or clicks on a PCL in the notification or alert, then the user may review the one or more incomplete and/or abandoned transactions and request processing of the incomplete and/or abandoned transactions by the processing module **184**. In various aspects, it should be appreciated that incomplete transactions may be referred to as abandoned transactions or checkout abandonments without departing from the scope of the present disclosure.

[0056] The service application **182**, in one embodiment, may be adapted to utilize a selection processing module to process and monitor user selection events during online shopping by the user via the user device **120**. In one aspect, the selection processing module allows the service provider **180** to process and monitor user selections during online naviga-

tion and shopping events over the network **160**. For example, the service provider **180** interfaces with the user device **120** via, e.g., a browser window to monitor the user and the user device **120** during navigation and shopping events on various merchant sites. The selection processing module may be used by the service provider **180** to monitor user selections of one or more items, products, and/or services.

[0057] The service provider **180**, in one embodiment, may be configured to maintain one or more user accounts and merchant accounts in an account database **190**, each of which may include account information **192** associated with one or more individual users and the one or more merchant devices **140**. For example, account information **192** may include private financial information of the user and each merchant **140**, such as one or more account numbers, passwords, credit card information, banking information, or other types of financial information, which may be used to facilitate online financial transactions between the user and the one or more merchant devices **140**. In various implementations, the methods and systems described herein may be modified to accommodate additional users and/or additional merchants that may or may not be associated with at least one existing user account and/or merchant account, respectively.

[0058] In one implementation, the user and/or user device **120** may have identity attributes stored with the service provider **180** as the user identifier **126**, and the user and/or user device **120** may have credentials to authenticate or verify identity with the service provider **180**. In one aspect, user attributes may include personal information and banking information, as previously described. In other aspects, the user attributes may be passed to the service provider **180** as part of a login and/or transaction request, and the user attributes may be utilized by the service provider **180** to associate the user and/or the user device **120** with one or more particular user accounts in the account database **190** maintained by the service provider **180**.

[0059] In another implementation, each of the merchants and/or merchant devices **140** may have identity attributes stored with the service provider **180** as merchant identifiers **146**, and each of the merchant devices **140** may have credentials to authenticate or verify identity with the service provider **180**. In one aspect, merchant attributes may include business information and banking information, as previously described. In other aspects, the merchant attributes may be passed to the service provider **180** as part of a login and/or transaction request, and the merchant attributes may be utilized by the service provider **180** to associate each of the merchant devices **140** with one or more merchant accounts in the account database **190** maintained by the service provider **180**.

[0060] The service provider **180**, in various embodiments, may include a network interface component (NIC) **194** adapted for communication with the network **160** and any network based communication devices including the network interface component **128** of the user device **120** and the network interface component **148** of each merchant **140**. In various implementations, the network interface component **194** of the service provider **180** may include a wireless communication component, such as a wireless broadband component, a wireless satellite component, or various other types of wireless communication components including radio frequency (RF), microwave frequency (MWF), and/or infrared frequency (IRF) components adapted for communication with the network **160**. In other various implementations, the network interface component **148** may be adapted to interface with a DSL (e.g., Digital Subscriber Line) modem, a PSTN (Public Switched Telephone Network) modem, an Ethernet device, and/or various other types of wired and/or wireless network communication devices adapted for communication with the network **160**.

[0061] The service provider **180**, in various embodiments, may include one or more databases **196** (e.g., internal and/or external databases) for storing and tracking information related to financial transactions between particular users, such as the user, the one or more merchant devices **140**, and the service provider **180**. In one implementation, the databases **196** may provide a historical survey of transactions between the user device **120**, the one or more merchant devices **140**, and the service provider **180**. For example, the service interface application **182** may be adapted to monitor, track, log, and store transaction information related to network based electronic commerce between the user device **120**, each merchant **140**, and/or the service provider **180**, and the stored transaction information is accessible from the databases **196** for analysis, maintenance, and settlement.

[0062] FIG. **2**A shows one embodiment of a method **200** for facilitating electronic commerce including processing incomplete transactions over the network **160**. It should be appreciated that, for purposes of explanation, the method **200** of FIG. **2**A is described in reference to the system **100** of FIG. **1**, but should not be limited thereto.

[0063] Referring to FIG. **2**A, the service provider **180** is adapted to receive a purchase request from a user via the user device **120** over the network **160** (block **202**). For example, a user or buyer may visit an online merchant website and navigate through the merchant's products and pages to select one or more items for purchase. The selected items are placed in a virtual shopping cart until checkout. When the user is done shopping, the user accesses a merchant webpage for viewing the selected items in the virtual shopping cart. At this merchant page, the user may decide to checkout (i.e., purchase) and select a link to the service provider **180** to request processing of the purchase transaction. Upon user selection, the service provider **180** receives a purchase request in reference to the shopping cart and the one or more items selected for purchase. In one aspect, the purchase request includes information related to the transaction including merchant name, merchant account, and one or more items selected for purchase including item description, price, weight, size, etc.

[0064] Next, the service provider **180** is adapted to prompt the user to login from the user device **120** over the network **160** (block **204**). In one aspect, the user is logging in to the service provider **180** with an intention to checkout and purchase the items selected in the virtual shopping cart from the merchant as provided in the purchase request.

[0065] Next, the service provider **180** is adapted to receive user information, such as identity information, from the user via the user device **120** over the network **160** (block **206**). In one aspect, user identity information may include attributes related to the user, such as personal information related to the user (e.g., usernames, passwords, photograph images, biometric ids, addresses, phone numbers, etc.) and banking information (e.g., banking institutions, credit card issuers, user account numbers, security information, etc.).

[0066] Next, the service provider **180** is adapted to verify a user account related to the user in the account database **190** based on user information passed from the user device **120** over the network **160** (block **208**). In one implementation, the

service provider device **180** processes a user login request by attempting to locate and access an account related to the user in the account database **190**. If the user is determined to be an existing user by the service provider **180**, then the service provider **180** is adapted to verify the user account and user identity information provider by user **102** in the user login request by comparing the received user information with account information **192** stored as part of the user account in the account database **190**. In one aspect, the service provider **180** may determine if the user account is current and active. In some instances, user account information may need to be updated, and as such, the service provider device **180** may prompt the user **102** to update user account information **188** in the user account for the user.

[0067] It should be appreciated by those skilled in the art that the service provider **180** may cancel the user login request at any time during the process of method **200** if, for example, it is determined by the service provider **180** that the user enters wrong information or the user is trying to access an account with criminal intent.

[0068] Next, the service provider **180** is adapted to prompt the user to complete the requested transaction from the user device **120** over the network **160** (block **210**). For example, in one implementation, the service provider **180** may prompt the user via the user device **120** to select a permission button to settle the debt with funds in the user account, which may be transferred from the user account to an account related to the merchant.

[0069] Next, the service provider **180** is adapted to receive a notice of incomplete transaction from the user device **120** over the network **160** (block **212**). In one example, the incomplete transaction may include an abandoned transaction, wherein the user abandons the purchase transaction during checkout or prior to providing permission to settle the debt for the selected items in the purchase transaction.

[0070] Next, the service provider **180** is adapted to store transaction information related to the incomplete transaction (block **214**). In one aspect, user information (e.g., attributes related to the user including user name and account number), merchant information (e.g., merchant name, merchant account, and the one or more items selected for purchase), and other transaction information related to the incomplete transaction may be stored as part of the user account in the account database **190** so that the service provider **180** may remind the user to complete the incomplete transaction at another time. These and other aspects of the present disclosure are described in greater detail herein.

[0071] FIG. **2**B shows one embodiment of a method **230** for facilitating electronic commerce including processing incomplete transactions over the network **160**. It should be appreciated that, for purposes of explanation, the method **230** of FIG. **2**B is described in reference to the system **100** of FIG. **1**, but should not be limited thereto.

[0072] Referring to FIG. **2**B, the service provider **180** is adapted to send notification of one or more incomplete transactions to a user via the user device **120** over the network **160** (block **232**). In various implementations, the user may be notified via notification by email, alert, text message, voice message, postal mail, etc. For example, as shown in FIG. **3**A, a user may be notified of one or more incomplete transactions via an email notification **300**. In another example, as shown in FIG. **3**B, a user may be notified of one or more incomplete transactions via an alert notification **310** having an account overview from a merchant **140**.

[0073] Next, the service provider **180** is adapted to provide the user with a list of incomplete transactions via the user device **120** over the network **160** (block **234**). In various examples, the list of incomplete transactions may comprise an interactive list having selectable links to incomplete transactions. For example, as shown in FIG. **3**A, when a user is notified of one or more incomplete transactions via email notification **300**, a list **302** of incomplete transactions may comprise an interactive list having one or more selectable links **304**A, **304**B related to one or more corresponding incomplete transactions. In another example, as shown in FIG. **3**B, when a user is notified of one or more incomplete transactions via alert notification **310** from a merchant **140**, alert notification **310** includes an account overview having a list **312** of incomplete transactions that may comprise an interactive list having one or more selectable links **314**A, **314**B related to one or more corresponding incomplete transactions.

[0074] In one embodiment, the service provider **180** is adapted to utilize portable checkout links (PCLs) to provide the user with the selectable links to corresponding incomplete and/or abandoned transactions. For example, the PCL is adapted to direct the user to a specific shopping cart having a state that may be frozen, saved, and/or accessed using a link, such as a URL link, and the shopping cart may be associated with a specific merchant **140**.

[0075] In one implementation, selecting (e.g., clicking on) a PCL may cause the shopping cart associated with the PCL to be regenerated similar to its original state but include various information related to inventory availability and price updates as provided by the merchant that generated the shopping cart. As such, PCLs provide a mechanism for the user to return and access a previously abandoned or incomplete purchase transaction by selecting the PCL and then proceeding with checkout from where the user previously left-off, withdrew, abandoned, or failed to complete the checkout, which is described herein.

[0076] Next, the service provider **180** is adapted to allow the user to select one or more incomplete transactions from the list to process via the user device **120** over the network **160** (block **236**). For instance, referring to FIGS. **3**A, **3**B, the user may review either notification **300**, **310** and choose to complete an incomplete or abandoned transaction by selecting one or more of the selectable links **304**A, **304**B, **314**A, **314**B, respectively, related to one or more corresponding incomplete transactions. In one aspect, referring to FIG. **3**B, a merchant **140** may provide the user the alert notification **310** to thereby allow the user to review and/or complete one or more incomplete or abandoned transactions. In this instance, the user may be redirected to the previously abandoned checkout page or shopping cart to review and/or complete the selected transaction. As shown in FIG. **3**B, the merchant is adapted to provide the user with current availability status **316**A, **316**B, such as current inventory status, current price, etc., of one or more selected items for purchase in the shopping cart.

[0077] Next, the service provider **180** is adapted to determine whether the user selected one or more incomplete transactions to process from the user device **120** over the network **160** (block **238**). If the service provider **180** determines that the user did not select at least one incomplete transaction to process (block **238**), then the service provider **180** is adapted to store transaction information related to the incomplete transaction (block **248**).

[0078] Otherwise, if the service provider **180** determines that the user selected at least one incomplete transaction to process (block **238**), then the service provider **180** prompts the user to login from the user device **120** over the network **160** (block **240**), receive user information, such as identity information, from the user via the user device **120** over the network **160** (block **242**), and verify a user account related to the user in the account database **190** based on user information passed from the user device **120** over the network **160** (block **244**).

[0079] Next, the service provider **180** is adapted to process incomplete transactions selected by the user from the user device **120** over the network **160** (block **246**) and store transaction information related to the completion of transactions (block **248**). In one aspect, information related to completed transactions may include information related to purchase transactions that were previously indicated as incomplete and/or abandoned transactions. Once selected for processing by the user and following processing by the service provider **180**, the status of purchase transactions previously indicated as incomplete and/or abandoned transactions may be changed to reflect a revised status of completed transaction.

[0080] FIG. **2**C shows one embodiment of a method **260** for facilitating electronic commerce including processing incomplete transactions over the network **160**. It should be appreciated that, for purposes of explanation, the method **260** of FIG. **2**C is described in reference to the system **100** of FIG. **1**, but should not be limited thereto.

[0081] In one implementation, referring to FIG. **2**C, the service provider **180** may be adapted to receive a purchase request from a user via the user device **120** over the network **160** (block **262**A). Next, the service provider **180** is adapted to prompt the user to login from the user device **120** over the network **160** (block **264**) and receive user information, such as identity information, from the user via the user device **120** over the network **160** (block **266**).

[0082] In another implementation, referring to FIG. **2**C, the service provider **180** may be adapted to receive a login request from a user via the user device **120** over the network **160** (block **262**B) and receive user information, such as identity information, from the user via the user device **120** over the network **160** (block **266**).

[0083] In either implementation, the service provider **180** is adapted to verify a user account related to the user in the account database **190** based on user information passed from the user device **120** over the network **160** (block **268**).

[0084] Next, the service provider **180** is adapted to provide the user with a list of incomplete transactions via the user device **120** over the network **160** (block **270**). In various examples, the list of incomplete transactions may comprise an interactive list having selectable links to incomplete transactions.

[0085] Next, the service provider **180** is adapted to allow the user to select one or more incomplete transactions from the list to process via the user device **120** over the network **160** (block **272**). Next, the service provider **180** is adapted to determine whether the user selected one or more incomplete transactions to process from the user device **120** over the network **160** (block **274**). If the service provider **180** determines that the user did not select at least one incomplete transaction to process (block **274**), then the service provider **180** is adapted to store transaction information related to the incomplete transaction (block **278**).

[0086] Otherwise, if the service provider **180** determines that the user selected at least one incomplete transaction to process (block **274**), then the service provider **180** is adapted to process incomplete transactions selected by the user from the user device **120** over the network **160** (block **276**). Next, the service provider **180** is adapted to store transaction information related to the completion of transactions (block **278**).

[0087] FIG. **3**C shows a graphic illustration of a user transaction history **330**, in accordance with embodiments of the present disclosure. In one implementation, once logged in to the service provider **180**, a user may access their user account in the account database **190** and review a list **332** of their transactional history of one or more previous purchases.

[0088] As shown in FIG. **3**C, the user may share knowledge of particular transactions with other users, friends, relatives, etc. directly from their transaction history by way of selecting one or more of selectable 'share' links **334** corresponding to one or more previous purchase transactions. For example, by clicking on a 'share' link **334**, the user enables selection of an option, wherein the 'share' link **334** may pre-fill information for the selected option and pass the information onto one or more other individuals (e.g., other users, friends, relatives, etc.). In one aspect, one or more of these particular transactions may be considered good deals or sales, and the user is allowed to pass information of these particular transactions to other individuals (e.g., other users, friends, relatives, etc.) over the network **160**.

[0089] In one aspect, the ability to share information from particular purchase transactions may be referred to as social shopping via portable checkout links. For example, in reference to the concept of sharing shopping information, a user gains the ability to inform friends, family, and other users on the network **160** to purchase the same items at the same price form the same merchants via notifications and/or portable checkout links.

[0090] FIG. **3**D shows a graphic illustration of an email notification **350** having user shared information **352** from the user transaction history **330** of FIG. **3**C and a portable checkout link **354** associated with a particular transactional item related to the shared information **352**, in accordance with embodiments of the present disclosure. In one implementation, the receiver of the email notification **350** may access, review, and/or purchase the same item as the user sending the email notification **350** via the portable checkout link **354**, which may result in a new purchase transaction for a merchant **140** and/or service provider **180**. As such, in one aspect, the email notification **350** allows a user to share information related to one or more purchase transactions with other individuals (e.g., other users, friends, relatives, etc.).

[0091] The systems and methods disclosed herein provide various advantages. For example, merchants may recover incomplete or abandoned shopping carts and purchase transactions, gain free or shared publicity, and attract new sales from referrals. Users, buyers, consumers, clients, etc. gain the convenience of completing a purchase transaction at another, more convenient time, which enables higher engagement, and users gain fulfillment from sharing good deals with others. Service providers may achieve increased revenues, more transaction completions, diversification of revenues including referral fees from merchants for new sales, ubiquity and publicity from portable checkout links being published on the network **160**, and merchant goodwill, which may result in a preferred status for merchant checkouts.

[0092] FIG. **4** is a block diagram of a computer system **400** suitable for implementing various embodiments of the present disclosure, including the user device **120**, the merchant devices **140**, and the service provider device **180**. In various implementations, the user device **120** may comprise a network communication device (e.g., mobile cellular phone, laptop, personal computer, etc.) capable of communicating with the network **160**, the merchant devices **140** may comprise a network computing device (e.g., a network server), and the service provider device **180** may comprise a network computing device (e.g., a network server). In other implementations, it should be appreciated that the merchant devices **140** and the service provider device **180** may comprise a network communication device (e.g., mobile cellular phone, laptop, personal computer, etc.) capable of communicating with the network **160**, without departing from the scope of the present disclosure. Hence, it should be appreciated that each of the devices **120**, **140**, **180** may be implemented as the computer system **400** for communication with the network **160** in a manner as follows.

[0093] In accordance with various embodiments of the present disclosure, computer system **400**, such as a mobile communication device and/or a network server, includes a bus **402** or other communication mechanism for communicating information, which interconnects subsystems and components, such as processing component **404** (e.g., processor, micro-controller, digital signal processor (DSP), etc.), system memory component **406** (e.g., RAM), static storage component **408** (e.g., ROM), disk drive component **410** (e.g., magnetic or optical), network interface component **412** (e.g., modem or Ethernet card), display component **414** (e.g., CRT or LCD), input component **416** (e.g., keyboard), cursor control component **418** (e.g., mouse or trackball), and image capture component **420** (e.g., analog or digital camera). In one implementation, disk drive component **410** may comprise a database having one or more disk drive components.

[0094] In accordance with embodiments of the present disclosure, computer system **400** performs specific operations by processor **404** executing one or more sequences of one or more instructions contained in system memory component **406**. Such instructions may be read into system memory component **406** from another computer readable medium, such as static storage component **408** or disk drive component **410**. In other embodiments, hard-wired circuitry may be used in place of or in combination with software instructions to implement the present disclosure.

[0095] Logic may be encoded in a computer readable medium, which may refer to any medium that participates in providing instructions to processor **404** for execution. Such a medium may take many forms, including but not limited to, non-volatile media and volatile media. In various implementations, non-volatile media includes optical or magnetic disks, such as disk drive component **410**, and volatile media includes dynamic memory, such as system memory component **406**. In one aspect, data and information related to execution instructions may be transmitted to computer system **400** via a transmission media, such as in the form of acoustic or light waves, including those generated during radio wave and infrared data communications. In various implementations, transmission media may include coaxial cables, copper wire, and fiber optics, including wires that comprise bus **402**

[0096] Some common forms of computer readable media includes, for example, floppy disk, flexible disk, hard disk, magnetic tape, any other magnetic medium, CD-ROM, any other optical medium, punch cards, paper tape, any other physical medium with patterns of holes, RAM, PROM, EPROM, FLASH-EPROM, any other memory chip or cartridge, carrier wave, or any other medium from which a computer is adapted to read.

[0097] In various embodiments of the present disclosure, execution of instruction sequences to practice the present disclosure may be performed by computer system **400**. In various other embodiments of the present disclosure, a plurality of computer systems **400** coupled by communication link **430** (e.g., network **160** of FIG. **1**, such as a LAN, WLAN, PTSN, and/or various other wired or wireless networks, including telecommunications, mobile, and cellular phone networks) may perform instruction sequences to practice the present disclosure in coordination with one another.

[0098] Computer system **400** may transmit and receive messages, data, information and instructions, including one or more programs (i.e., application code) through communication link **430** and communication interface **412**. Received program code may be executed by processor **404** as received and/or stored in disk drive component **410** or some other non-volatile storage component for execution.

[0099] Where applicable, various embodiments provided by the present disclosure may be implemented using hardware, software, or combinations of hardware and software. Also, where applicable, the various hardware components and/or software components set forth herein may be combined into composite components comprising software, hardware, and/or both without departing from the spirit of the present disclosure. Where applicable, the various hardware components and/or software components set forth herein may be separated into sub-components comprising software, hardware, or both without departing from the scope of the present disclosure. In addition, where applicable, it is contemplated that software components may be implemented as hardware components and vice-versa.

[0100] Software, in accordance with the present disclosure, such as program code and/or data, may be stored on one or more computer readable mediums. It is also contemplated that software identified herein may be implemented using one or more general purpose or specific purpose computers and/or computer systems, networked and/or otherwise. Where applicable, the ordering of various steps described herein may be changed, combined into composite steps, and/or separated into sub-steps to provide features described herein.

[0101] The foregoing disclosure is not intended to limit the present disclosure to the precise forms or particular fields of use disclosed. As such, it is contemplated that various alternate embodiments and/or modifications to the present disclosure, whether explicitly described or implied herein, are possible in light of the disclosure. Having thus described embodiments of the present disclosure, persons of ordinary skill in the art will recognize that changes may be made in form and detail without departing from the scope of the present disclosure. Thus, the present disclosure is limited only by the claims.

What is claimed is:

1. A method for facilitating electronic commerce over a network, the method comprising:

communicating with a user via a user device and a merchant via a merchant device over the network;

storing an incomplete purchase transaction between the user and the merchant;

generating a portable checkout link to the incomplete purchase transaction;

providing the portable checkout link to the user over the network;

allowing the user to select the incomplete purchase transaction for processing; and

processing the incomplete purchase transaction upon user selection.

2. The method of claim **1**, further comprising notifying the user of the incomplete purchase transaction over the network.

3. The method of claim **2**, wherein notifying the user includes sending a notification to the user over the network including at least one of an email, an alert, a text message, and a voice message.

4. The method of claim **2**, wherein notifying the user includes providing a list of one or more incomplete purchase transactions to the user over the network, and wherein each incomplete purchase transaction in the list includes a corresponding portable checkout link associated therewith.

5. The method of claim **4**, further comprising determining whether the user selects at least one of the incomplete purchase transactions for processing from the list, wherein the determination is based on user selection of the portable checkout link related to the selected incomplete purchase transaction.

6. The method of claim **1**, further comprising storing information related to a completed purchase transaction after processing the selected incomplete purchase transaction between the user and the merchant.

7. The method of claim **1**, further comprising:

receiving a purchase request from the user via the user device over the network;

prompting the user to login over the network;

receiving user information including user identity information from the user via the user device over the network;

verifying the identity of the user based on the user information; and

verifying a user account related to the user.

8. The method of claim **1**, further comprising:

receiving a login request from the user via the user device over the network; and

processing the login request by verifying the identity of the user and accessing an account related to the user based on user information passed with the login request.

9. The method of claim **1**, wherein the incomplete purchase transaction is stored as part of an account related to the user, and the account related to the user includes information related to the user including identification information.

10. The method of claim **1**, wherein the method is performed by a network server adapted to communicate with the user device and the merchant device over the network.

11. A system for facilitating electronic commerce over a network, the system comprising:

means for communicating with a user via a user device and a merchant via a merchant device over the network;

means for storing an incomplete purchase transaction between the user and the merchant;

means for generating a portable checkout link to the incomplete purchase transaction;

means for providing the portable checkout link to the user over the network;

means for allowing the user to select the incomplete purchase transaction for processing; and

means for processing the incomplete purchase transaction upon user selection.

12. The system of claim **11**, further comprising means for notifying the user of the incomplete purchase transaction over the network.

13. The system of claim **12**, wherein means for notifying the user includes means for sending a notification to the user over the network including at least one of an email, an alert, a text message, and a voice message.

14. The system of claim **12**, wherein means for notifying the user includes means for providing a list of one or more incomplete purchase transactions to the user over the network, and wherein each incomplete purchase transaction in the list includes a corresponding portable checkout link associated therewith.

15. The system of claim **14**, further comprising means for determining whether the user selects at least one of the incomplete purchase transactions for processing from the list, wherein the determination is based on user selection of the portable checkout link related to the selected incomplete purchase transaction.

16. The system of claim **11**, further comprising means for storing information related to a completed purchase transaction after processing the selected incomplete purchase transaction between the user and the merchant.

17. The system of claim **11**, further comprising:

means for receiving a purchase request from the user via the user device over the network;

means for prompting the user to login over the network;

means for receiving user information including user identity information from the user via the user device over the network;

means for verifying the identity of the user based on the user information; and

means for verifying a user account related to the user.

18. The system of claim **11**, further comprising:

means for receiving a login request from the user via the user device over the network; and

means for processing the login request by verifying the identity of the user and accessing an account related to the user based on user information passed with the login request.

19. The system of claim **11**, wherein the incomplete purchase transaction is stored as part of an account related to the user, and the account related to the user includes information related to the user including identification information.

20. The system of claim **11**, comprising a network server adapted to communicate with the user device and the merchant device over the network.

21. A computer readable medium on which are stored computer readable instructions and when executed operable to:

communicate with a user via a user device and a merchant via a merchant device over the network;

store an incomplete purchase transaction between the user and the merchant;

generate a portable checkout link to the incomplete purchase transaction;

provide the portable checkout link to the user over the network;

allow the user to select the incomplete purchase transaction for processing; and

process the incomplete purchase transaction upon user selection.

22. The computer readable medium of claim **21**, further operable to notify the user of the incomplete purchase transaction over the network, wherein notifying the user includes sending a notification to the user over the network including at least one of an email, an alert, a text message, and a voice message.

23. The computer readable medium of claim **21**, further operable to notify the user of the incomplete purchase transaction over the network, wherein notifying the user includes providing a list of one or more incomplete purchase transactions to the user over the network, and wherein each incomplete purchase transaction in the list includes a corresponding portable checkout link associated therewith.

24. The computer readable medium of claim **21**, further operable to determine whether the user selects at least one of the incomplete purchase transactions for processing from the list, wherein the determination is based on user selection of the portable checkout link related to the selected incomplete purchase transaction.

25. The computer readable medium of claim **21**, further operable to store information related to a completed purchase transaction after processing the selected incomplete purchase transaction between the user and the merchant.

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