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O'Dell

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(54) **METHOD FOR AGGREGATED LOCATION-BASED SERVICES**

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(51) **Int. Cl.**

G06Q 30/0601	(2023.01)
G06F 16/29	(2019.01)
G06F 16/9537	(2019.01)
G06Q 30/02	(2023.01)

(52) **U.S. Cl.**

CPC ***G06Q 30/0601*** (2013.01); ***G06F 16/29*** (2019.01); ***G06F 16/9537*** (2019.01); ***G06Q 30/02*** (2013.01)

(58) **Field of Classification Search**

CPC G06Q 30/00; G06Q 30/01; G06Q 30/02; G06Q 30/0601; G06Q 10/08; G06Q 10/087; G06F 17/30241; G06F 17/3087

See application file for complete search history.

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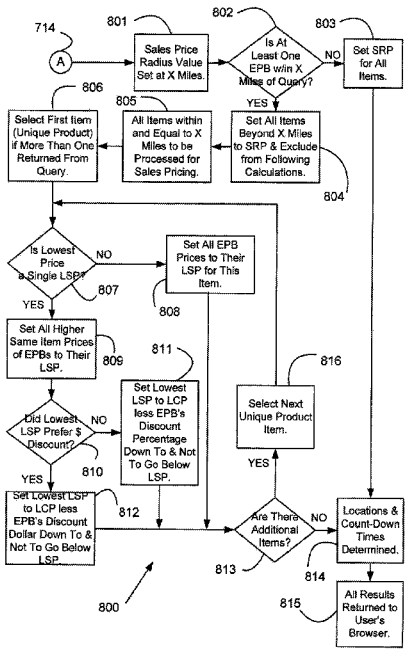
(57) **ABSTRACT**

A method for operating an aggregated web service to display location-based items and services and allow for their remote purchase and pick-up or delivery. Algorithms provided to vendors allow for automated pricing adjustments to encourage purchase in competitive geographical locations.

59 Claims, 14 Drawing Sheets



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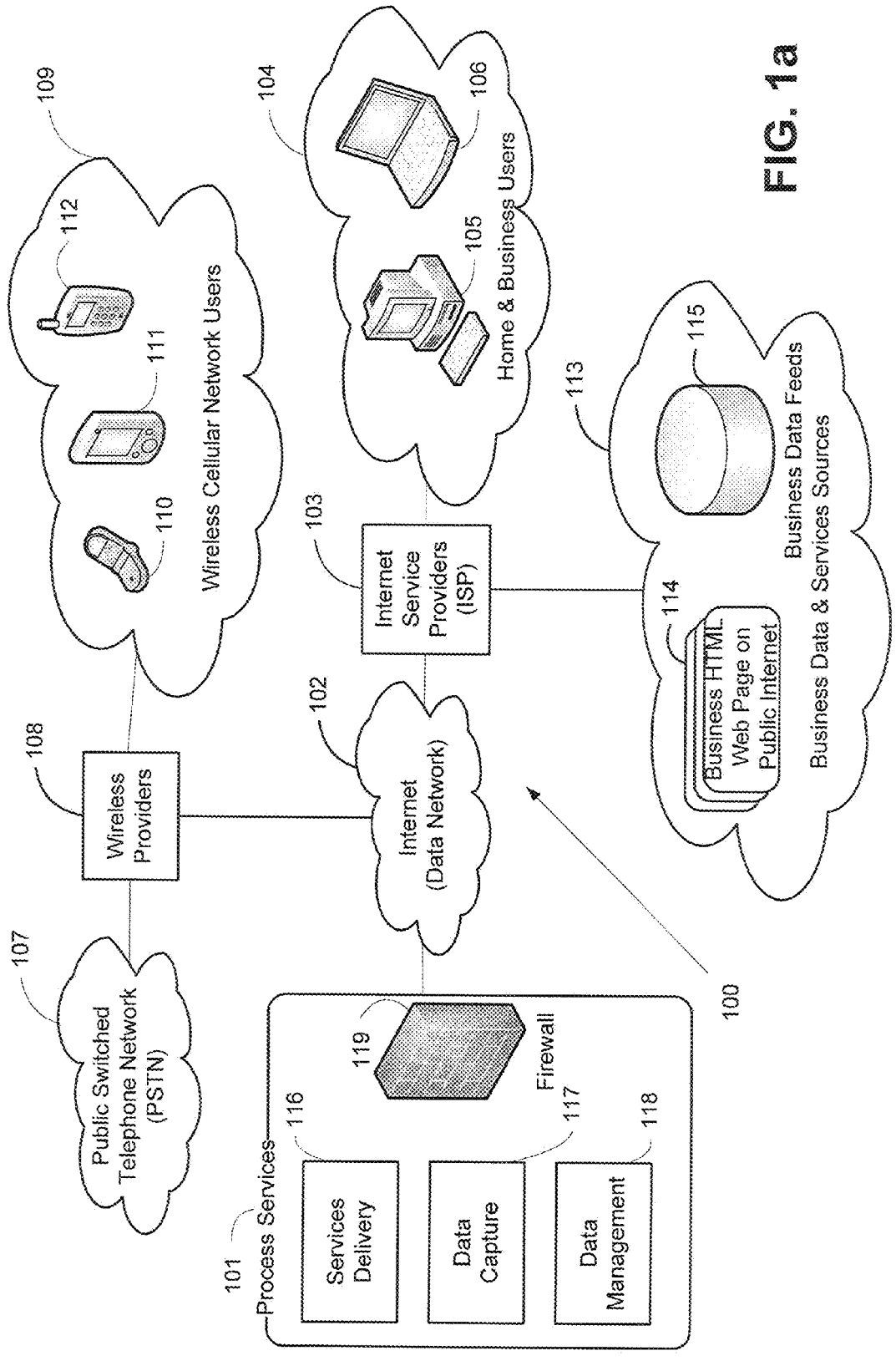

109
112
111
110
Wireless Cellular Network Users
104
106
105
Home & Business Users
113
115
Business Data Feeds
Business Data & Services Sources
114
Business HTML Web Page on Public Internet
103
Internet Service Providers (ISP)
102
Internet (Data Network)
108
Wireless Providers
107
Public Switched Telephone Network (PSTN)
100
101
Process Services
116
Services Delivery
117
Data Capture
118
Data Management
119
Firewall

FIG. 1a

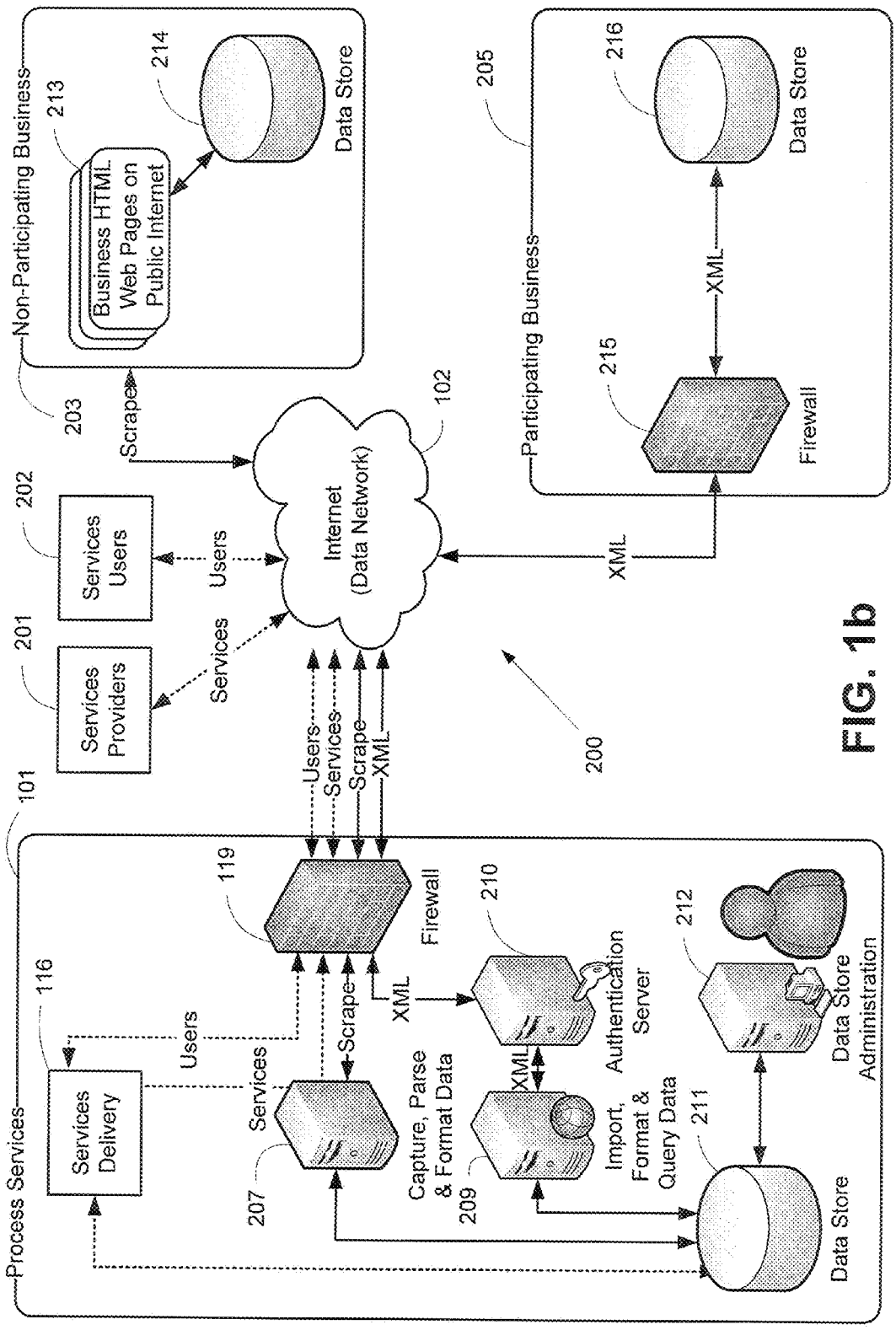
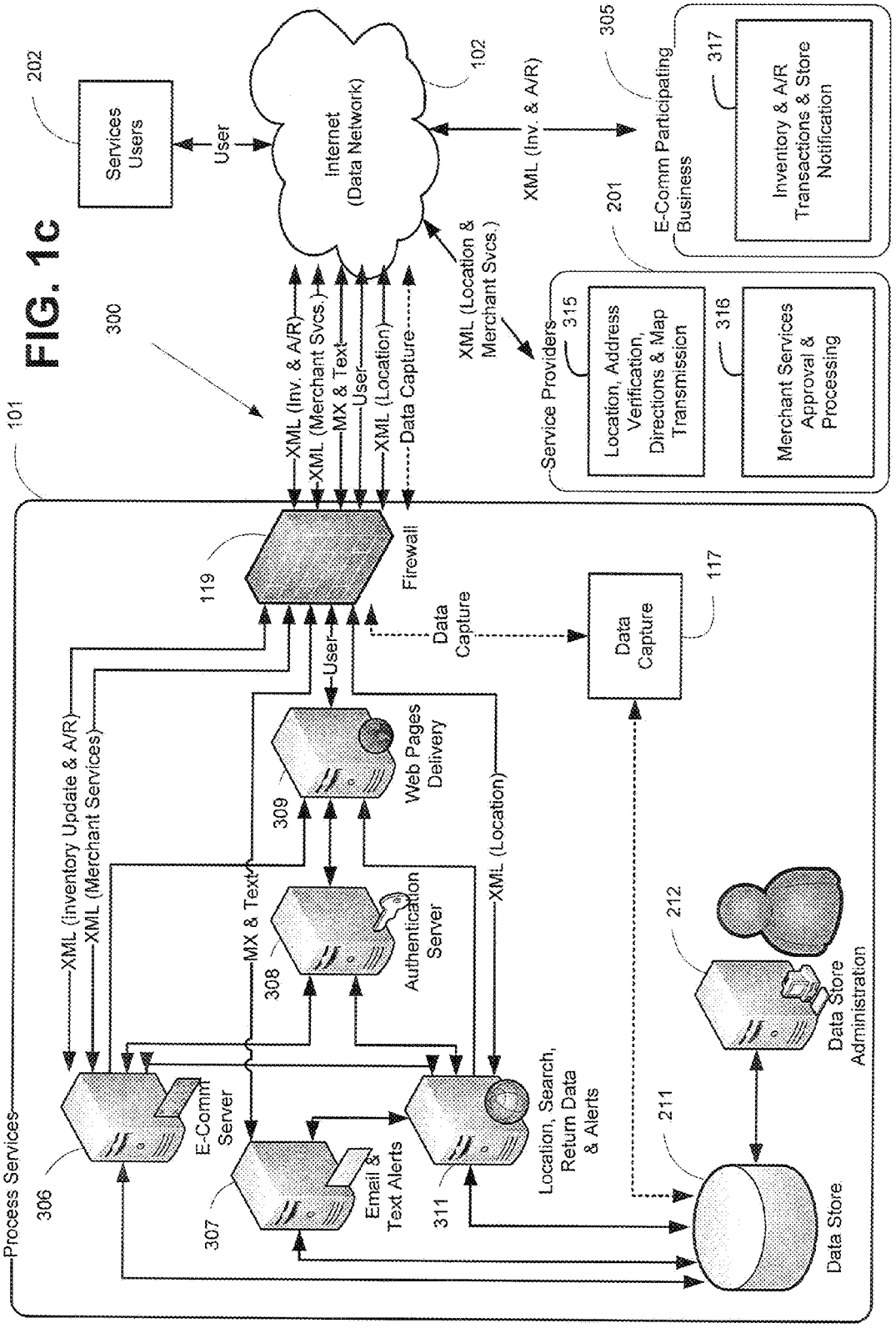

Non-Participating Business
203
213
Business HTML Web Pages on Public Internet
214
Data Store
Scrape
Internet (Data Network)
102
Participating Business
205
216
Data Store
215
Firewall
XML
Services Users
202
Users
Services Providers
201
Services
Users
Services
Scrape
XML
200
Process Services
101
Services Delivery
116
119
Firewall
210
Authentication Server
212
Data Store Administration
Capture, Parse & Format Data
207
209
Import, Format & Query Data
211
Data Store

FIG. 1b

FIG. 1c


202
Services Users
User
Internet (Data Network)
102
XML (Inv. & A/R)
305
E-Comm Participating Business
317
Inventory & A/R Transactions & Store Notification
201
300
XML (Location & Merchant Svcs.)
Service Providers
315
Location, Address Verification, Directions & Map Transmission
316
Merchant Services Approval & Processing
XML (Inv. & A/R)
XML (Merchant Svcs.)
MX & Text
User
XML (Location)
Data Capture
101
119
Firewall
Data Capture
117
Data Capture
User
XML (inventory Update & A/R)
XML (Merchant Services)
309
Web Pages Delivery
MX & Text
308
Authentication Server
XML (Location)
212
Data Store Administration
306
E-Comm Server
307
Email & Text Alerts
311
Location, Search, Return Data & Alerts
211
Data Store
Process Services

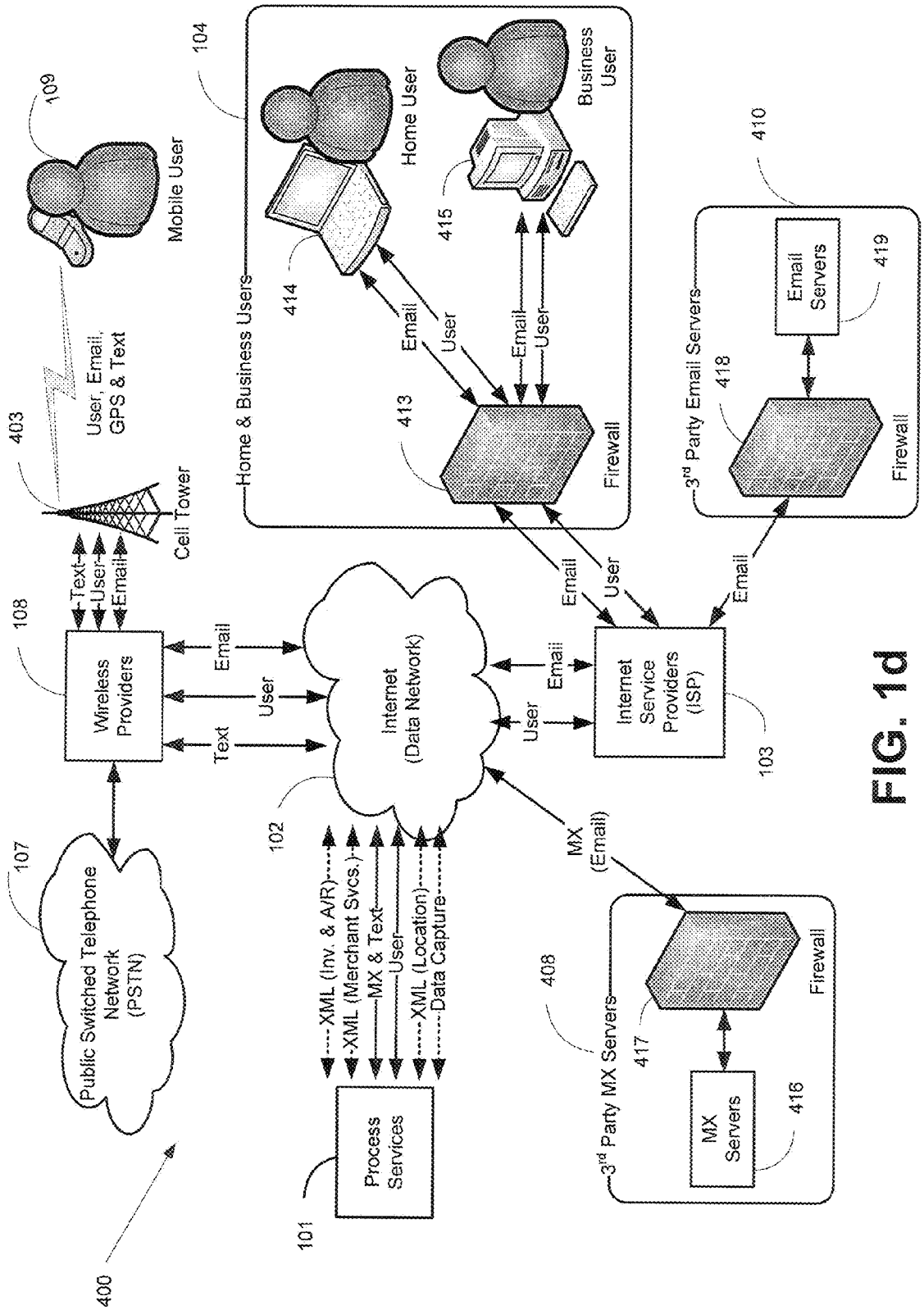

400
101
Process Services
XML (Inv. & A/R)
XML (Merchant Svcs.)
MX & Text
User
XML (Location)
Data Capture
102
Internet (Data Network)
103
Internet Service Providers (ISP)
MX (Email)
107
Public Switched Telephone Network (PSTN)
108
Wireless Providers
Text
User
Email
403
Cell Tower
User, Email, GPS & Text
109
Mobile User
104
Home & Business Users
414
Home User
415
Business User
413
Firewall
408
3rd Party MX Servers
417
MX Servers
416
410
3rd Party Email Servers
418
Email Servers
419

FIG. 1d

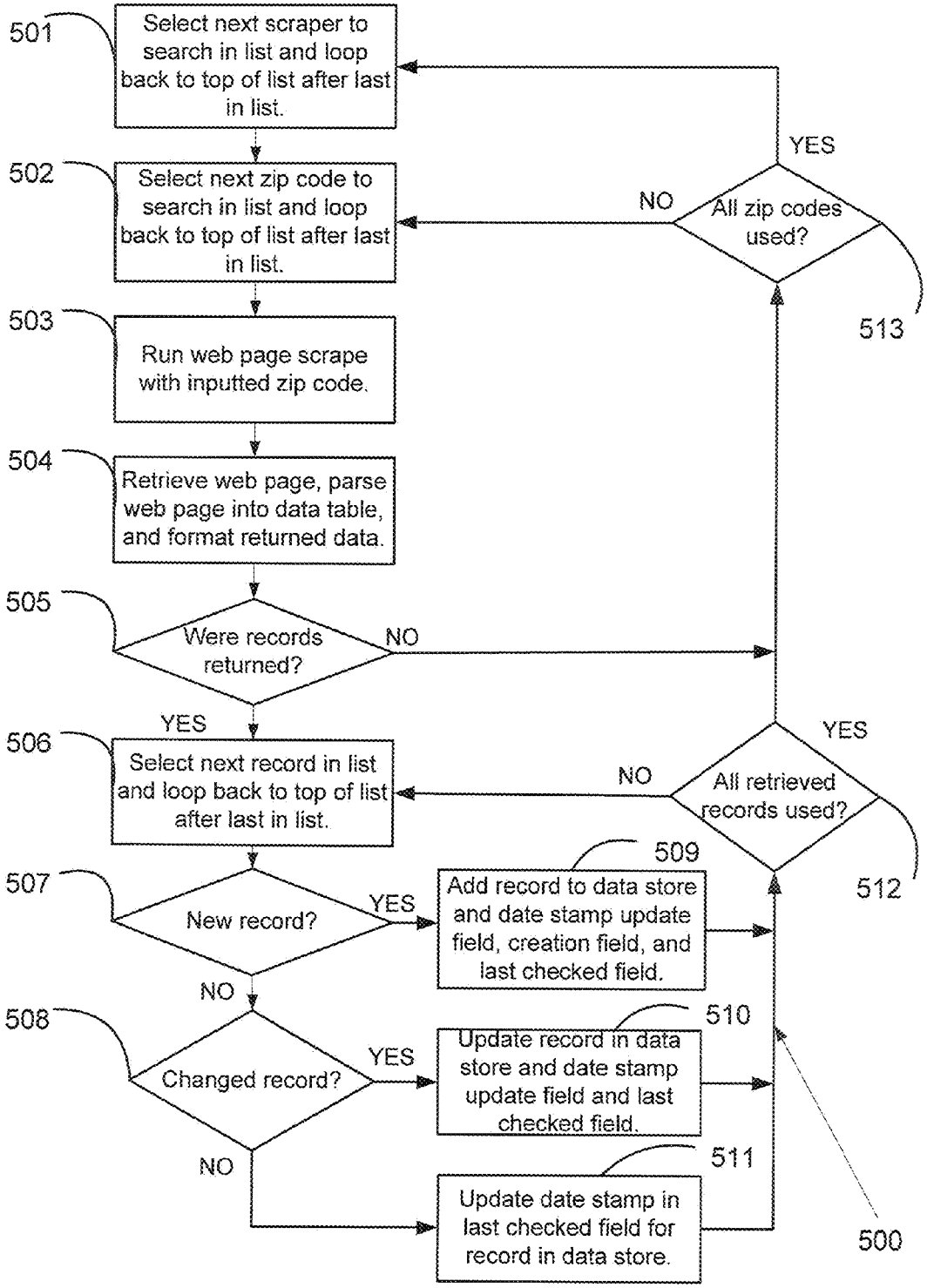

501
Select next scraper to search in list and loop back to top of list after last in list.
502
Select next zip code to search in list and loop back to top of list after last in list.
503
Run web page scrape with inputted zip code.
504
Retrieve web page, parse web page into data table, and format returned data.
505
Were records returned?
NO
YES
506
Select next record in list and loop back to top of list after last in list.
507
New record?
YES
NO
508
Changed record?
YES
NO
509
Add record to data store and date stamp update field, creation field, and last checked field.
510
Update record in data store and date stamp update field and last checked field.
511
Update date stamp in last checked field for record in data store.
512
All retrieved records used?
NO
YES
513
All zip codes used?
NO
YES
500

FIG. 2a

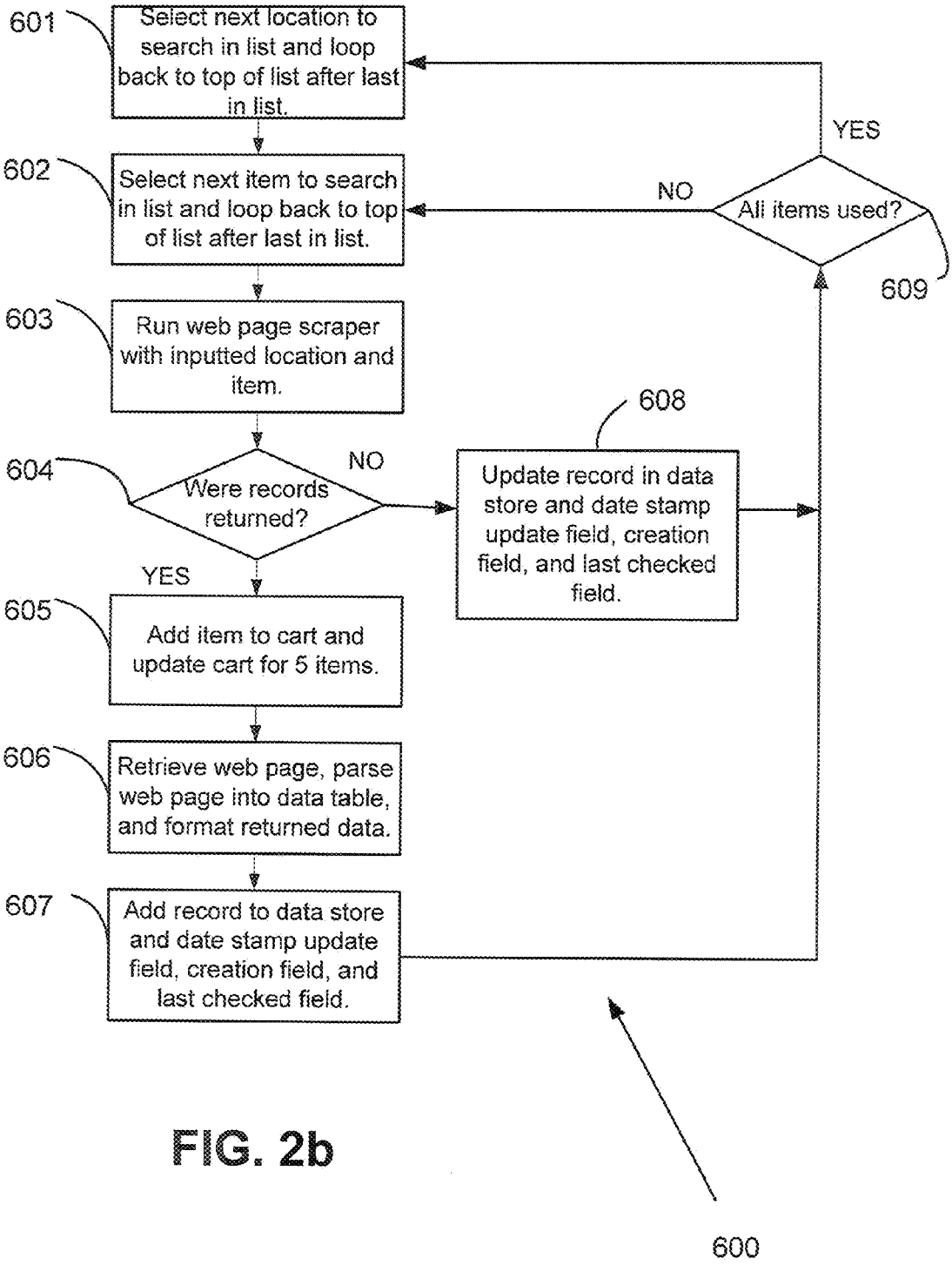

601
Select next location to search in list and loop back to top of list after last in list.
602
Select next item to search in list and loop back to top of list after last in list.
603
Run web page scraper with inputted location and item.
604
Were records returned?
NO
YES
605
Add item to cart and update cart for 5 items.
606
Retrieve web page, parse web page into data table, and format returned data.
607
Add record to data store and date stamp update field, creation field, and last checked field.
608
Update record in data store and date stamp update field, creation field, and last checked field.
609
All items used?
NO
YES
600

FIG. 2b

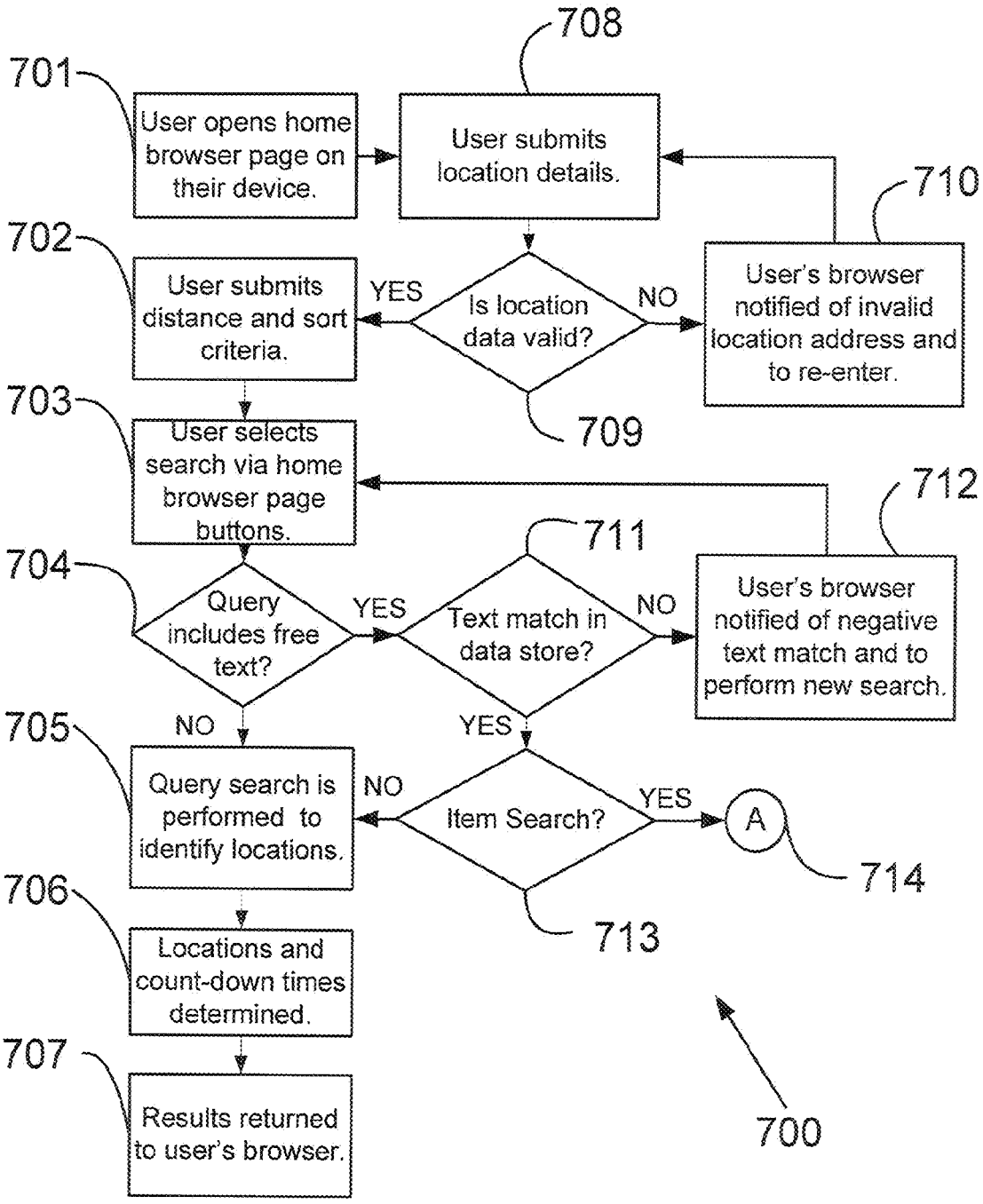

701
User opens home browser page on their device.
708
User submits location details.
710
User's browser notified of invalid location address and to re-enter.
Is location data valid?
YES
NO
709
702
User submits distance and sort criteria.
703
User selects search via home browser page buttons.
712
User's browser notified of negative text match and to perform new search.
711
Text match in data store?
YES
NO
704
Query includes free text?
YES
NO
705
Query search is performed to identify locations.
Item Search?
NO
YES
A
714
713
706
Locations and count-down times determined.
707
Results returned to user's browser.
700

FIG. 3

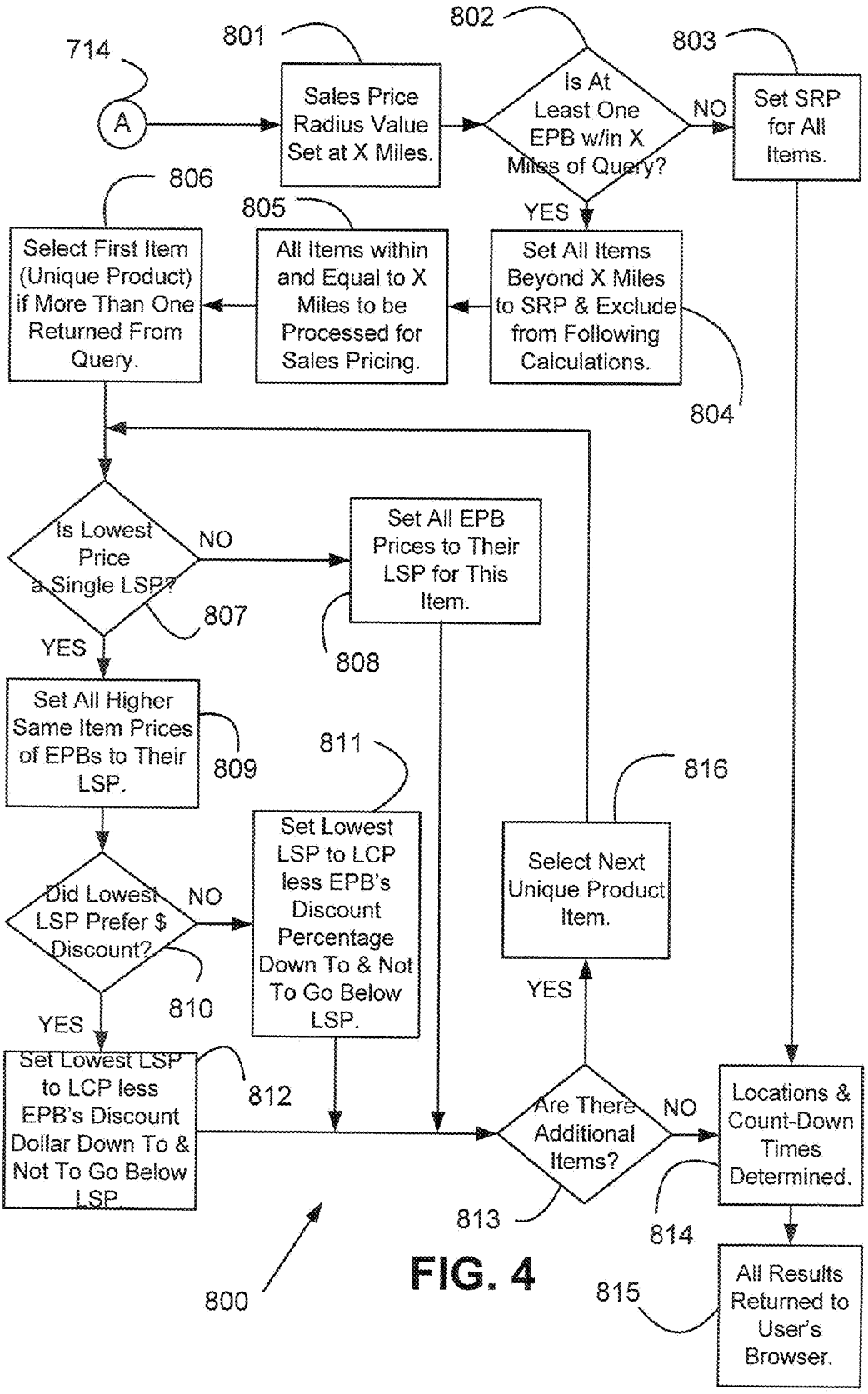

714
A
801
Sales Price Radius Value Set at X Miles.
802
Is At Least One EPB w/in X Miles of Query?
NO
803
Set SRP for All Items.
YES
805
All Items within and Equal to X Miles to be Processed for Sales Pricing.
806
Select First Item (Unique Product) if More Than One Returned From Query.
Set All Items Beyond X Miles to SRP & Exclude from Following Calculations.
804
Is Lowest Price a Single LSP?
NO
807
Set All EPB Prices to Their LSP for This Item.
808
YES
Set All Higher Same Item Prices of EPBs to Their LSP.
809
811
Set Lowest LSP to LCP less EPB's Discount Percentage Down To & Not To Go Below LSP.
816
Select Next Unique Product Item.
Did Lowest LSP Prefer $ Discount?
NO
810
YES
YES
Set Lowest LSP to LCP less EPB's Discount Dollar Down To & Not To Go Below LSP.
812
Are There Additional Items?
NO
813
Locations & Count-Down Times Determined.
814
All Results Returned to User's Browser.
815
800

FIG. 4

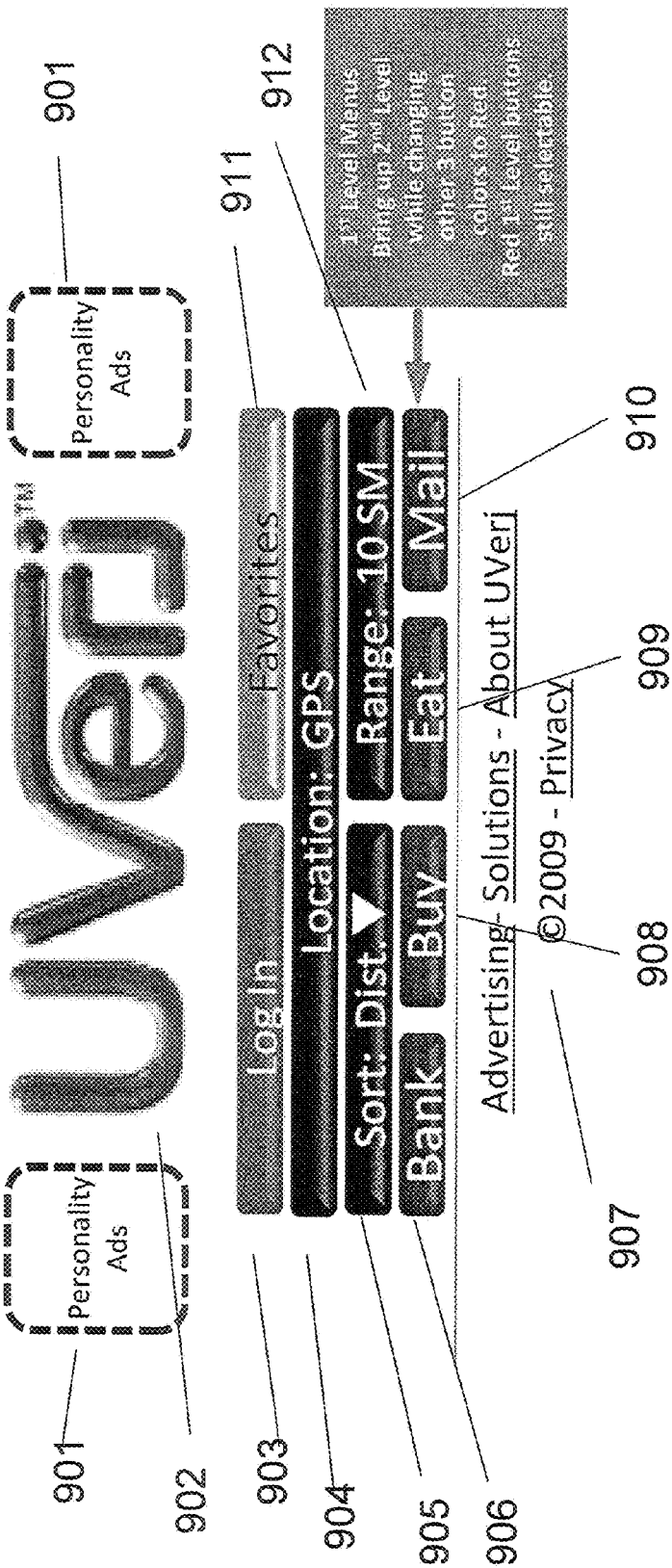
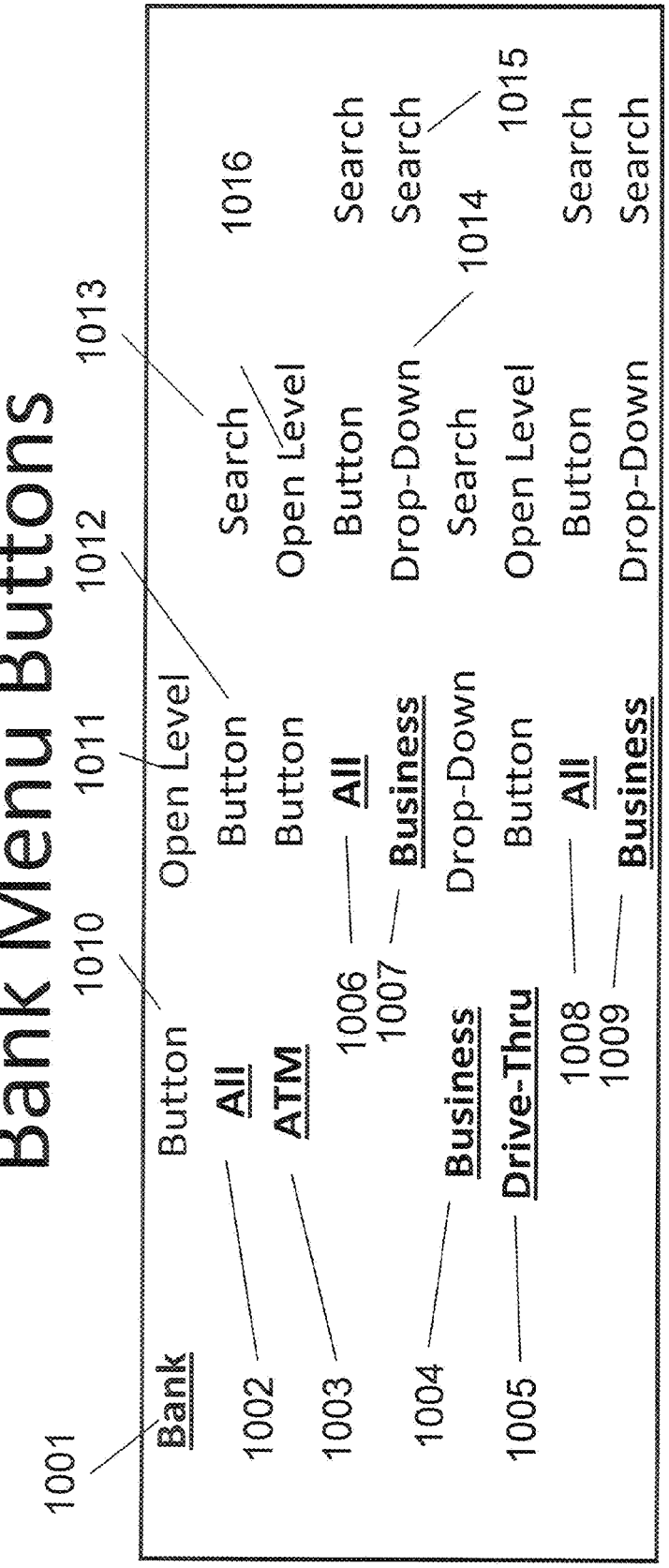

UVeri™
Personality Ads
Personality Ads
Log In
Favorites
Location: GPS
Sort: Dist.
Range: 10 SM
Bank
Buy
Eat
Mail
Advertising - Solutions - About UVeri
©2009 - Privacy
1st Level Menus
Bring up 2nd Level
while changing
other 3 button
colors to Red
Red 1st Level buttons
still selectable
901
902
903
904
905
906
907
908
909
910
911
912
900

FIG. 5



Business Drop-Down buttons display list of businesses/establishments within the scope of the filtered distance & selector buttons. When the "Business" button under ATM is selected, then only the selected business' ATMs are shown.

FIG. 6a

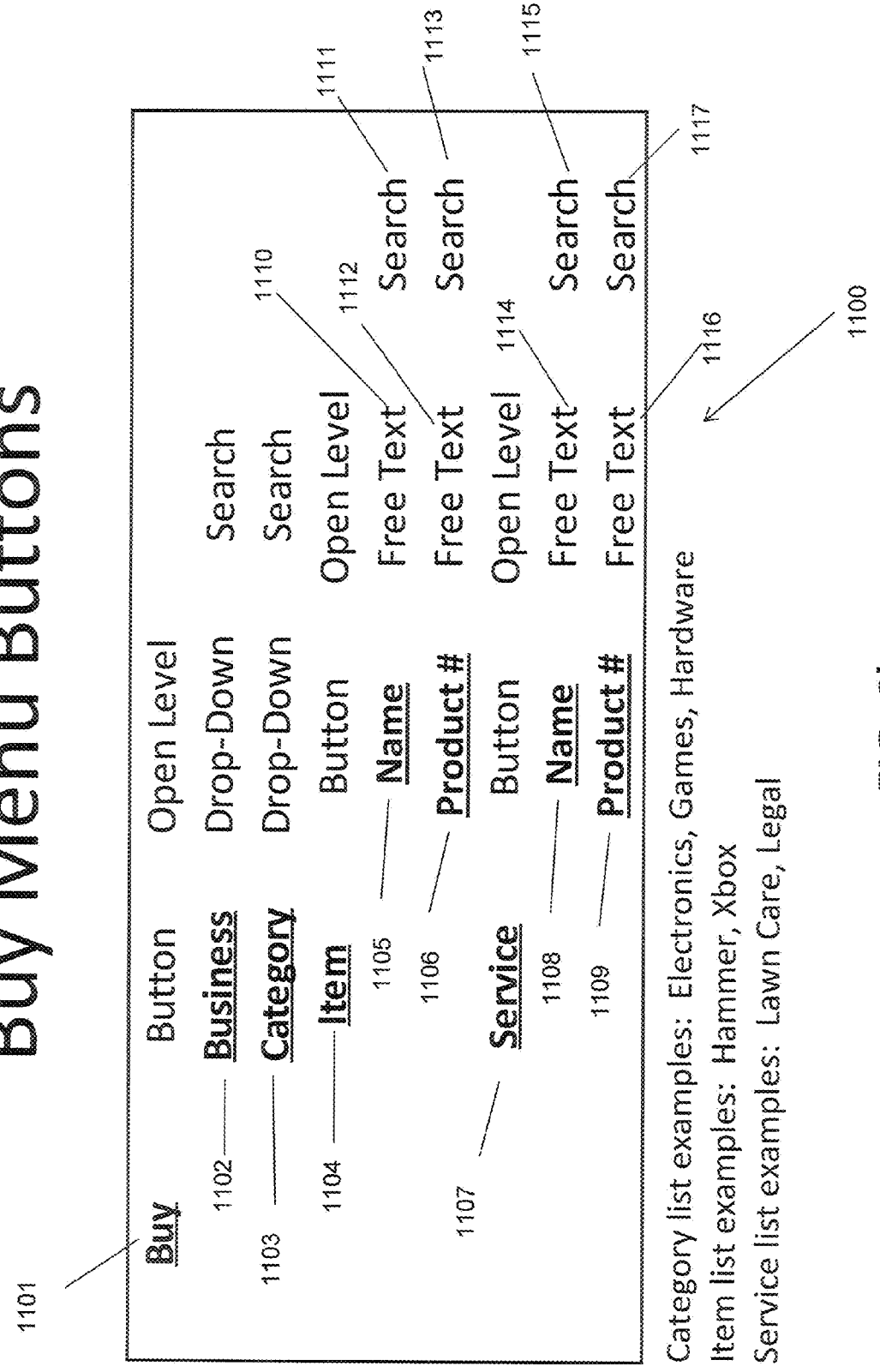
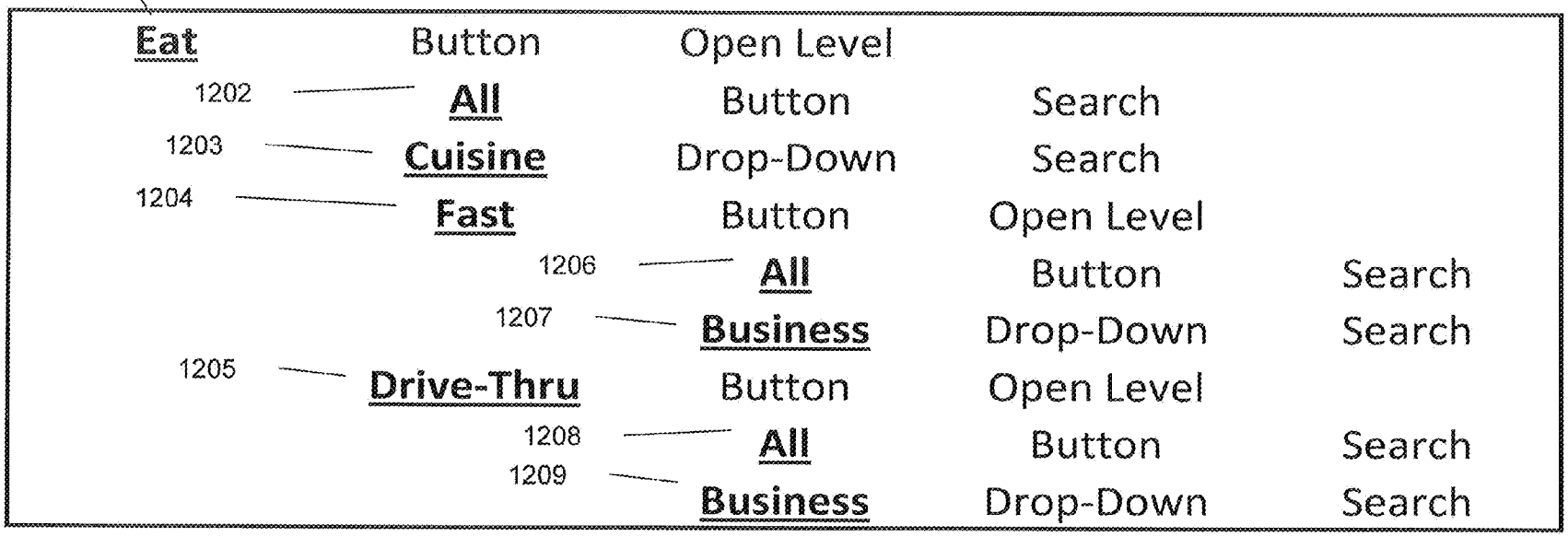

Buy Menu Buttons
1101
Buy
Button
Open Level
1102
Business
Drop-Down
Search
1103
Category
Drop-Down
Search
1110
1104
Item
Button
Open Level
1112
1111
1105
Name
Free Text
Search
1106
Product #
Free Text
Search
1113
1107
Service
Button
Open Level
1114
1115
1108
Name
Free Text
Search
1109
Product #
Free Text
Search
1117
1116
1100
Category list examples: Electronics, Games, Hardware
Item list examples: Hammer, Xbox
Service list examples: Lawn Care, Legal

FIG. 6b

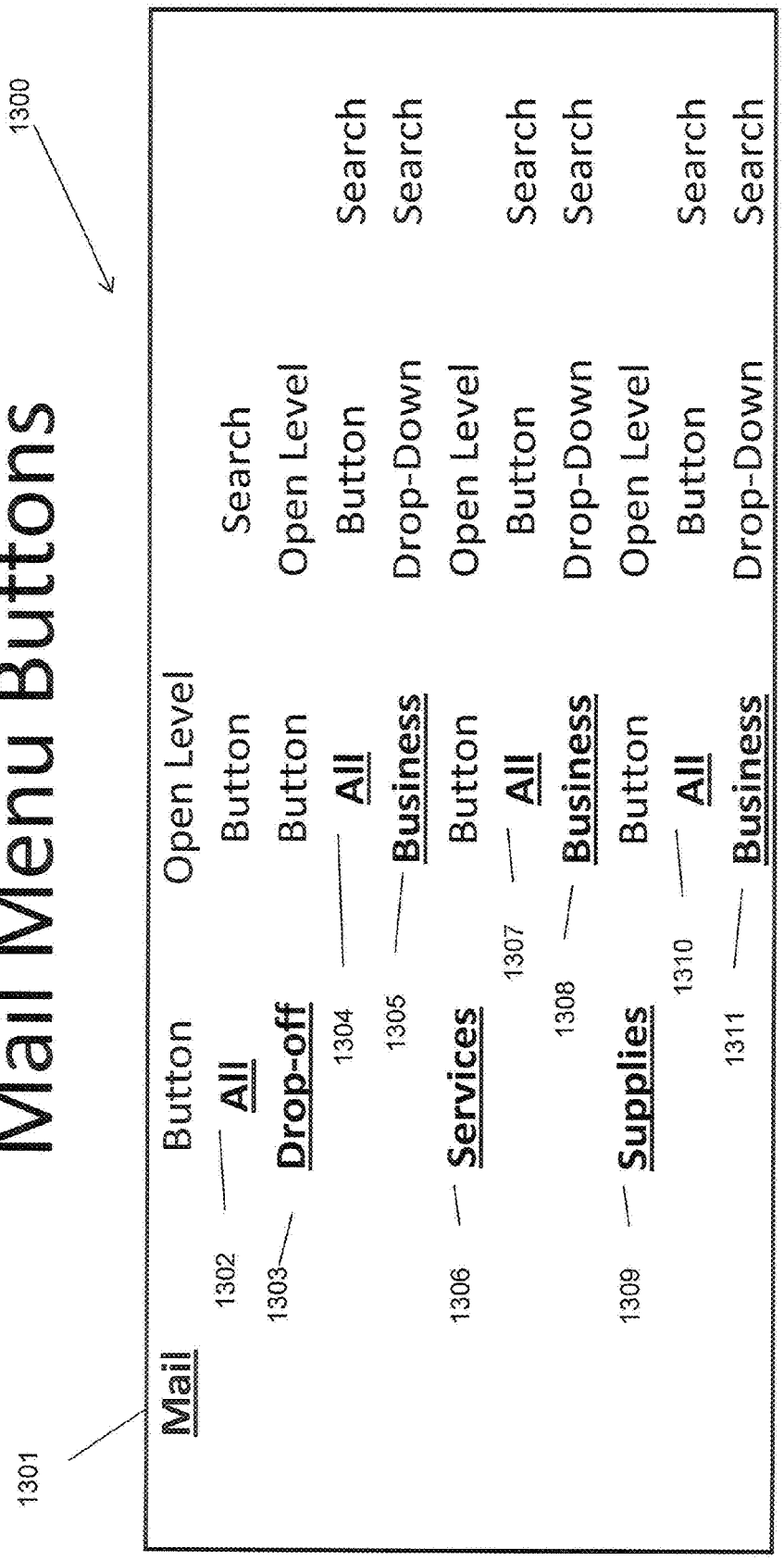
Eat Menu Buttons



Cuisine Drop-Down button displays list of all types of foods in the selected cuisine category.

FIG. 6c

1200



Business Drop-Down buttons display list of businesses/establishments within the scope of the filtered distance & selector buttons. When the "Business" button under Drop-off is selected, then only drop-offs are shown for the selected business.

FIG. 6d

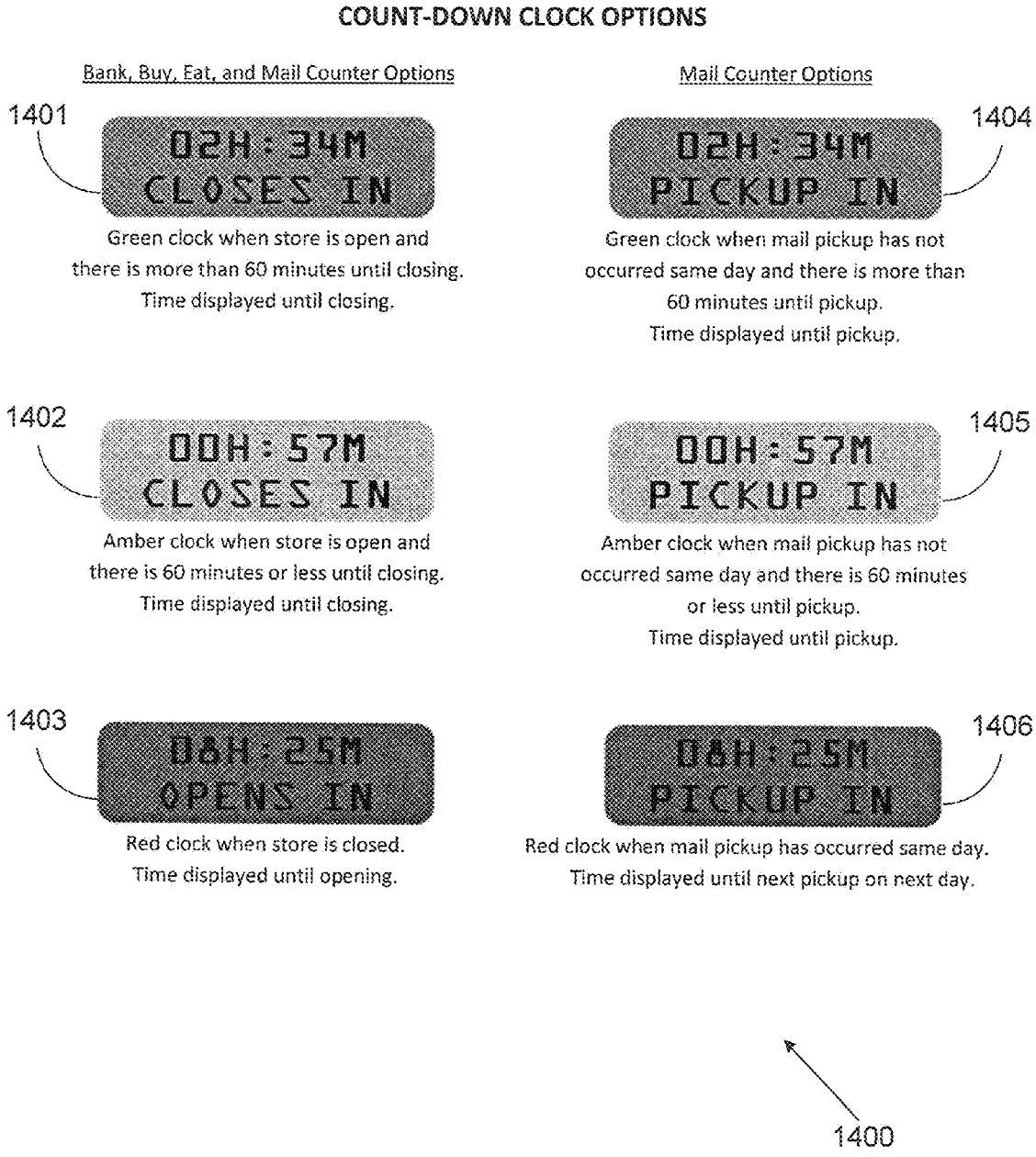

COUNT-DOWN CLOCK OPTIONS
Bank, Buy, Eat, and Mail Counter Options
Mail Counter Options
1401
02H:34M
CLOSES IN
Green clock when store is open and there is more than 60 minutes until closing. Time displayed until closing.
1404
02H:34M
PICKUP IN
Green clock when mail pickup has not occurred same day and there is more than 60 minutes until pickup. Time displayed until pickup.
1402
00H:57M
CLOSES IN
Amber clock when store is open and there is 60 minutes or less until closing. Time displayed until closing.
1405
00H:57M
PICKUP IN
Amber clock when mail pickup has not occurred same day and there is 60 minutes or less until pickup. Time displayed until pickup.
1403
08H:25M
OPENS IN
Red clock when store is closed. Time displayed until opening.
1406
08H:25M
PICKUP IN
Red clock when mail pickup has occurred same day. Time displayed until next pickup on next day.
1400

FIG. 7

METHOD FOR AGGREGATED LOCATION-BASED SERVICES

Matter enclosed in heavy brackets [ ] appears in the original patent but forms no part of this reissue specification; matter printed in italics indicates the additions made by reissue; a claim printed with strikethrough indicates that the claim was canceled, disclaimed, or held invalid by a prior post-patent action or proceeding.

This application is based on and derives the benefit of the filing date of U.S. Provisional Patent Application No. 61/232,970, filed Aug. 11, 2009. The content of this application is herein incorporated by reference in its entirety.

TECHNICAL FIELD

The present disclosure generally relates to methods for operating an aggregated web services network to deliver location-based results to mobile and/or desktop web browsers. The present disclosure further relates to methods for operating data collection servers, database storage servers, web site delivery services, and/or vendor pricing algorithm services for use in such aggregated web services network.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1**a is a diagram that illustrates a network architecture having process services and networks that connect various parties, according to an embodiment;

FIG. **1**b is a diagram that illustrates data capture components, such as a scraper, and networks that can be transited to access data providers, according to an embodiment;

FIG. **1**c is a diagram that illustrates services delivery components, such as a web site, and networks that can be transited to provide access to users, e-commerce participating businesses, and third-party service providers, according to an embodiment;

FIG. **1**d is a diagram that illustrates various users of services and the networks that can be transited to access the process services, according to an embodiment;

FIG. **2**a is a flow diagram that illustrates a capture, parse, and format data server process for location data, according to an embodiment;

FIG. **2**b is a flow diagram that illustrates a capture, parse, and format data server process for inventory data, according to an embodiment;

FIG. **3** is a flow diagram that illustrates an item and services search and data return process, according to an embodiment;

FIG. **4** is a flow diagram that illustrates a competitive sales pricing algorithm process, according to an embodiment;

FIG. **5** is a home web screen layout for providing aggregated location-based services that shows the main first level search buttons, according to an embodiment;

FIG. **6**a is a diagram that illustrates various selectable buttons associated with a bank search service, according to an embodiment;

FIG. **6**b is a diagram that illustrates various selectable buttons associated with a buy search service, according to an embodiment;

FIG. **6**c is a diagram that illustrates various selectable buttons associated with an eat search service, according to an embodiment;

FIG. **6**d is a diagram that illustrates various selectable buttons associated with a mail search service, according to an embodiment; and

FIG. **7** is a diagram that illustrates multiple variations of a count-down clock that can be displayed in association with one or more of the location-based services, according to an embodiment.

DETAILED DESCRIPTION OF SEVERAL EMBODIMENTS

FIG. **1**a illustrates an embodiment of a process architecture **100** for use in aggregated location-based services. The process architecture **100** can include process services **101** having a services delivery **116**, a data capture **117**, and a data management **118**, all of which can pass through a firewall **119**. The process services **101** can communicate through a data network, such as a public internet **102**, for example, with networks associated with both wireless providers **108** and Internet service providers (ISPs) **103**. Users of the services provided in the process architecture **100** can include mobile users **109** and home and business users **104**. Mobile users **109** can use browsers commonly found in the type of handheld devices that are used in connection with the internet services provided by wireless providers **108**. These handheld devices can include flip phones **110**, touch screen and personal digital assistant (PDA) phones **111**, and traditional cell phones **112**, for example. Mobile users can also connect to traditional landline phones through a public switched telephone network (PSTN) **107** accessed via their wireless providers **108**. Devices associated with home and office desktop users **104** can include desktops **105** and laptops **106**, or other devices capable of browsing web sites, for example. These devices can use browsers commonly found in these devices to connect to the other networks via services provided by their ISPs **103**. Data associated with aggregated location-based services can be retrieved from business data and services sources **113**, which may include both public and private sources. For example, publicly available business web pages **114** can be searched to populate and update the data stored in the process services **101** while business data feeds **115** provided by private participating businesses can have access (e.g., by authentication) to the data stored associated with such businesses to update and manage their inventories, pricings, and/or pricing algorithms. Further, business data and services sources **113** can include third-party services providers such as location, address, verification, directions, and map transmission **315** (see FIG. **1**c) and merchant services approval and processing **316** (see FIG. **1**c).

FIG. **1**b illustrates an embodiment of a data capture architecture **200** having process services **101** that use a data network, such as the internet **102**, for example, to retrieve public data from non-participating businesses **203**, linked data from participating businesses **205**, and provide services to services users **202** and receive services from third-party services providers **201**. The third-party services providers **201** can be a subset of the business data and services sources **113** shown in FIG. **1**a. Services users **202** can include the wireless cellular network users **109** and the home and business users **104** described above with respect to FIG. **1**a. Non-participating businesses **203** can refer to those businesses that have data stored in data store **214** and publicly present that data in a public web site **213** associated with the business. The non-participating businesses **203** can be a subset of the business data and services sources **113** described above with respect to FIG. **1**a. The capture, parse,

and format data server **207**, which can also be referred to as a scraping server **207**, can run an automated computer program or application that communicates with the business HTML web pages on public internet **213** web sites through a firewall **119**. These scraped communications can request and retrieve select content from the web pages associated with the business HTML web pages on public internet **213** web sites from the non-participating businesses **203**. The scraping server **207** can capture, parse, and/or format the data that is retrieved for comparison to the records in a data store **211** in the process services **101**. Web site scraping is an active field in which new developments continue to occur. Currently, several vendors offer scraping product solutions. This disclosure, however, need not be limited to current off-the-shelf offerings but may rely on custom offerings and/or future offerings of scraping product solutions.

Based on records returned by the scraping server **207**, the data store **211** will be updated to reflect new record additions, changes to existing records, and deletion of out-of-date records. Business HTML web pages on public internet **213** web sites of the non-participating business **203** can be regularly scraped (e.g., scheduled scrapes) for updates, changes and/or deletions. Examples of the type of data elements that can be requested and/or retrieved from the public business HTML web pages on public Internet **213** web sites can include store location addresses, location name and/or type, phone numbers, hours of operation, mail or package pick-up times, item or service prices, inventory quantities, and product names and product numbers.

Participating businesses **205** can refer to those businesses that contract or have a relationship with the process services **101** and can update records related to those businesses in the data store **211** via real-time extensible markup language (XML) or other automated and authenticated method. The process of updating records in the data store **211** can be initiated either by the process services **101** or by a participating business **205**. When the participating business **205** initiates the update, then an automated system (not shown) operated by the participating business **205** may establish communication between the participating business **205** and the authentication server **210** in the process services **101** via XML or other automated and authenticated method. Such communication can pass through, for example, a firewall **215** in the participating business **205**, the internet **102**, and a firewall **119** in the process services **101**. The authentication server **210** can be configured to authenticate and to approve the identity of the electronic connection through the use of any common encrypted authentication and access process. When the secure electronic connection is authenticated and approved, the authentication server **210** can pass the electronic connection to the import, format and query data server **209**. The import, format and query data server **209** can then compare the data records in the data store **216** of the participating business **205** with the contents in the data store **211** of the process services **101** to determine whether data updates are needed. When the import, format and query data server **209** initiates an automated electronic records update, the process services **101** can authenticate with the data store **216** to establish an approved connection and to commence comparing records between the data store **211** and the data store **216** before updating records on the data store **211**.

Participating businesses **205** can conform to standardized electronic templates that indicate the data elements under consideration for updates. When a participating business **205** participates in an e-commerce service, as described in more detail below with respect to FIG. **1**c, the participating business **205** can provide additional data elements not included in the standardized electronic templates, such as product names and prices, for example. The automation provided with a participating business **205** can result in a reduction in the processing power of this approach when compared to a scraping approach used with non-participating businesses **203** when determining timely data changes across the entire data set versus an electronic exchange that can update real-time incremental changes on a per business basis.

A services delivery **116** of the process services **101** can communicate through the firewall **119** and the internet **102** to third-party services providers **201** and services users **202** and is further described in more detail below with respect to FIG. **1**c. The administration or management of the data store **211** can be performed by a data store administration **212** server that can be configured to confirm that records in the data store **211** are intact and/or are correctly updated. Examples of the functions of the data store administrator **212** can include verifying each business scraping program is returning valid data and that a business has not changed their web site which would require its related scraper to be updated. The data store administrator **212** can also verify that duplicate records are not being generated in the data store through the use of monitoring scripts and user initiated searches, and to manage the schedule of the scraping routines to balance time sensitive updates against bandwidth and processing limitations, for example.

FIG. **1**c illustrates an embodiment of a services delivery architecture **300** having process services **101** that can communicate with services users **202**, third-party services providers **201**, and e-commerce participating businesses **305** through a firewall **119** and a data network such as the internet **102**, for example. The web pages delivery server **309** can interact with the browsers supported by the devices used by the services users **202**. Such browsers can be used to, for example, render pages and search results. The services users **202** can perform aggregated location-based searches associated with products and services, for example, by using a graphical interface displayed in a browser having a button search methodology configured for such type of products and services. Those search requests can be passed to the location, search, return data and alerts **311** server in the process services **101** to query the data store **211** and return the requested data elements to the web pages delivery **309** server to render the appropriate information in the browser of a services user **202**. The search query can require location and range settings prior to initiating any searches through the browser. Users that are presented with and desiring e-commerce purchase options can log in to a secure service (e.g., secure socket layer (SSL)) that can be authenticated through an authentication server **308** for connecting the services users **202** to the e-commerce server **306** of the process services **101**.

E-commerce participating businesses **305** can be a subset of the participating businesses **205** shown in FIG. **1**b with, for example, enhanced connectivity. These businesses can provide real-time information for inventory and accounts receivable transactions and store notification **317** in addition to electronic confirmation of availability, which can be required for an e-commerce transaction. When the e-commerce participating business **305** also participates in a real-time pricing algorithm associated with aggregated location-based services, then the data elements of a standard template may also include lowest price limit, criteria trigger values for reduced sales pricing, and discount method, for example, as described below with respect to FIG. **4**. Such sales price triggering, when invoked, can be displayed to the

user during the initial query search results. Once the e-commerce transaction is completed and verified via the browser of the services user **202**, depending on the option or options chosen, the user can either proceed to the store to pick up the purchased item or can wait for the item to be delivered by mail.

Merchant services approval and processing **316** providers of third-party services providers **201** can contract or establish a relationship with the process services **101** for e-commerce sales processing. While e-commerce transactions can be typically related to purchases using a "Buy" button in a graphical interface provided to the user's browser, additional third-party services providers **201** can provide third-party location, address, verification, directions and map transmission **315** which can be used to validate all "Buy" button e-commerce address requirements and all non-ecommerce location searched addresses for all of the search buttons. Other services, such as maps and drive-to directions can also be provided and displayed on the user's browser. Services users **202** that log on can register to create email and text alerts for items such as sales confirmations, password changes, price or item watch triggers, and also sales notices, for example, which can be managed and sent by an email and text alerts server **307**. The administration of the data store **211** can be performed by the data store administration server **212**, which can be configured to confirm that records in the data store **211** are intact and/or updated correctly.

FIG. **1**d illustrates an embodiment of a services users architecture **400** in which various users can communicate with the process services **101** via the internet **102**, for example. Mobile users **109** can access the process services **101** through their mobile browsers via the internet services provided by their wireless providers **108**. The wireless providers **108** can communicate with the mobile users **109** via cell towers **403** or satellites. The handheld devices used by the mobile users **109** can be configured to receive email, text and/or global position system (GPS) services. Such handheld devices can be configured to receive services from the process services **101**, particularly, services associated with, for example, email and text alerts and services that use personal GPS tracking for location determination and navigation. The mobile users **109** can connect to traditional landline phones through a public switched telephone network (PSTN) **107** via their wireless providers **108**.

Home and business users **104** can access, through their browsers, one or more web sites supported by the process services **101** and associated with aggregated location-based services. The home and business users **104** can access such web sites by, for example, communicating through a firewall **413** and their internet service providers (ISP) **103**. Home users **414** or business users **415** can use either a desktop or laptop computer, or other web site browsing device, for example, to browse the web sites supported by the process services **101** while also receiving email alerts when the desktop or laptop computer, or other web site browsing device, is properly configured.

Email alerts can be available to those who have configured their computers to receive such service from either a company-owned email server or from publicly hosted third-party email servers **410**. Both company-owned email servers and third-party email servers **410** can pass traffic through a firewall **418** prior to communication with the email servers **419**. The location of the email servers (e.g., internet protocol (IP) addresses) can be registered with third-party mail exchange (MX) servers **408**. Email alerts sent by the process services **101** can initially communicate through the internet **102** and through a firewall **417** of the third-party MX servers **408** to the MX servers **416**. The MX servers **416** can then return to the process services **101** the actual IP address of the email server to receive the alert email. The process services **101** email can be sent through the firewall **119** (see FIG. **1**c) and the internet **102** to the destination email server, such as an email server in the third-party email servers **410**. When email alerts are provided and enabled for operation, a mobile user **109** or a home and business user **104** can receive the email alert. Email and text alerts can be provide a user with updates or changes within a defined area of prices, hours of operation or pick-up, new opening or closing locations, new products or services, user passwords, user preferences, and count-down time alerts, for example.

FIG. **2**a shows a flow **500** associated with an embodiment of a process used in a capture, parse, and format data server for location data. In this embodiment, the capture, parse, and format data server corresponds to the capture, parse, and format data server **207** (see FIG. **1**b) described above that scrapes the business HTML web pages on public internet **213** of selected non-participating business **203** (see FIG. **1**b). In the flow **500**, select non-participating business **203** (see FIG. **1**b) web sites can be chosen for retrieving location data specific to that company's operating business or drop-off boxes from the business HTML web pages on public internet **213** (see FIG. **1**b). Data elements to be retrieved can include, for example, business or drop-off boxes location addresses, location name and/or type, phone numbers, hours of operation, mail or package pick-up times, items or services available and/or pricing information. Customized and tailored to each specific non-participating company's business HTML web pages on public internet **213** (see FIG. **1**b), the scrapers can be initially operated in series, one after the other, to preserve computing power and bandwidth on such a data set, which is typically not very dynamic, and can subsequently be operated in parallel. At **501**, as each location scraper is called up, the selected scraper can loop through a group or list of zip codes at **502**, or other country specific high-level addressing systems, until they have performed a complete loop of the zip codes at **513**. The location scraper can then loop to the next tailored scraper at **501** that can target a different business HTML web pages on public internet **213** until all location scrapers have been used, at which point the system can loop back to the first location scraper and repeat the cycle.

At **503**, as each zip code is transmitted to a search function of a business HTML web pages on public internet **213** (see FIG. **1**b), returned web pages at **504** can be parsed into their raw data elements and formatted into a standard template by the capture, parse and format data server **207** (see FIG. **1**b) and checked for records returned at **505**. When no records are returned at **505**, then the process checks whether all zip codes have been used for the business HTML web pages on public internet **213** of a current non-participating business's **203** (see FIG. **1**b) at **513**. When all zip codes have been used for scraping as determined at **513**, then the process selects the next non-participating business **203** to scrape at **501**, otherwise the process can increment to the next zip code in the list at **502** and perform another query for that non-participating business **203** at **503**.

When records are returned at **505**, the first record can be selected at **506** and checked to determine whether the record is a new record (e.g., a new location) at **507**. When the record is a new record as determined at **507**, the record can be added to the data store **211** (see FIG. **1**b) and date stamp update field, creation field, and last checked field at **509**. The process can check whether all retrieved records at **506** have been used for scraping at **512**. When all retrieved records

have been used, then the process can return to **513** to check whether all zip codes have been used for scraping, or when not all retrieved records have been used, then to pass the next returned record for analysis at **506**.

When the record passed to **507** is not a new record, then the record can be checked to compare all data elements for any changes at **508**. When the record has changed since the last update, then the changed record fields can be updated in the data store **211** (see FIG. **1**b) and date stamps can be updated for the update field and last checked field at **510**. After **510**, the process can go back to check whether all retrieved records have been processed at **512**. When the returned record is unchanged since the last update at **508**, then the process can update the records date stamp for the last checked field in the data store **211** at **511** and then the process can check whether all retrieved records have been analyzed at **512**. Although not shown in FIG. **2**a, a separate process can be included in which record sets that have "last checked" fields that extend beyond an established amount of time can be reviewed for deletion from the data store **211** by the data store administration **212** (see FIG. **1**b). The scraper process can be managed by an administrator, such as the data store administrator **212**, for example, that can establish run times and/or monitor cycle times.

FIG. **2**b shows a flow **600** associated with an embodiment of a process used in a capture, parse and format data server for inventory data. In this embodiment, the capture, parse and format data server can correspond to the capture, parse, and format data server **207** described above with respect to FIG. **1**b. The first business location in the list at **601** can be loaded with the first item in the list at **602** to run a web page query (e.g., a scrape) of a business HTML web pages on public internet **213** of a select non-participating business **203** by location and item at **603**. When no records are returned at **604**, then the item record for this location can be updated in the data store **211** along with date stamping the update field, creation field, and last checked field at **608**. After **608**, the process can check that all items from the list have been searched at **609**. When all items have been searched, then the process can select the next location at **601**; otherwise, the process can select the next item to search for the same location at **602**. When a record is returned for the item at **604**, then the item can be added to the web site check-out cart and have the capture, parse and format data server **207** server update the quantity field for a selected number of items at **605**. In one embodiment, five (5) items can be updated at **605**. In other embodiments, fewer or more than five (5) items can be updated at **605**. The retrieved web page can then be parsed into a data table and formatted with the returned quantity available up to, for example, five units at **606** and then the data store **211** can be updated to reflect quantity along with date stamping the update field and last checked field at **607**. After **607**, the process can return to check whether all items were searched for at this particular location at **609**.

FIG. **3** shows a flow **700** associated with an embodiment of a products and services search and data return process. When either a mobile user **109** (see FIG. **1**d) or a home and/or business users **104** (see FIG. **1**d) opens their browser's web page at this method's aggregated location-based web pages delivery **309** (see FIG. **1**c) on their computing device (e.g., mobile device, computer) at **701**, the user can submit their location address details at **708** where the web pages delivery server **309** passes the information to the location, search, return data and alerts server **311** (see FIG. **1**c), which performs the search and data return process as depicted in flow **700** and **800** (see FIG. **4**). The location, search, return data and alerts server **311** can then communicate with the location, address verification, directions, and map transmission **315** (see FIG. **1**c) providers to validate the submitted address at **709**. FIGS. **5**-**7** below describe various aspects associated with a web page for aggregated location-based services that can be used at **701**. For example, FIG. **5** shows a home web screen layout **900** for providing aggregated location-based services having main first level search buttons that include "Bank", "Buy", "Eat", and "Mail" buttons. FIGS. **6**a-**6**d show tables describing several menu buttons that can be selected for a bank search **1000**, a buy search **1100**, an eat (or dine) search **1200**, and a mail search **1300**. FIG. **7** illustrates several variations of a count-down clock that can be used with search results associated with the above-described searches.

Returning to **709**, an invalid address not recognized by a location, address verification, directions and map transmission **315** provider at **709** can return a notification to the browser of the services user **202** of the invalid address and a re-entry request of the address at **710**. A valid address can allow the services user **202** to proceed and submit their distance and sort criteria at **702**. The services user **202** can start a search by selecting a button from the service's web page **900** for aggregated location-based services at **703** which is delivered by the web pages delivery server **309**. The process can check whether the search included a free text entry at **704**. When free text is included in the search at **704**, then the process checks for a match from the data store **211** at **711**. When there is not a match in the data store **211** at **711**, the browser of the service user **202** can be notified of the negative free text match and can prompt the user to perform a new search at **712** and the process can return to the services user **202** to enter a new search at **703**.

When there is a match in the data store **211** of the free text entry at **711**, then the aggregated location-based services can determine whether this is an item query search or a location search at **713**. When the query search is for an item product, then the process can proceed to junction **714** which is described in more detail in the item query search process **800** (see FIG. **4**). When the query search is a location search, then the location, search, return data and alerts server **311** queries the data store **211** to identify locations at **705**. Locations and count-down times, for example, can be determined by the process at **706** and then the process can return the locations and count-down times to the browser of the service user **202** at **707**.

FIG. **4** shows a flow **800** associated with an embodiment of a process for an item search and a competitive sales pricing algorithm that can be used with the flow **700** (see FIG. **3**) described above where both process flows reside on the location, search, return data and alerts server **311**. In the flow **800**, EPB can refer to e-commerce participating business, LSP can refer to a lowest sales price, SRP can refer to a standard retail price, and LCP can refer to a lowest competitor price. The flow **700** at **714** (see FIG. **3**) flows to **714** in process flow **800** such that during an item query, the process associated with flow **800** first inserts a distance radius value which is based upon changing business needs and requests from various e-commerce participating businesses **305** (see FIG. **1**c), which can be based on, for example, a simple average of the requested value of the e-commerce participating businesses **305**, a value determined by this process, a random value, or a standard value, such as 20 statute miles. This value can then be inserted into the process at **801** to establish a radius area from the location provided for the services users **202**. The process can then check whether there is at least one e-commerce participating

business **305** within this radius area at **802**. When there are no e-commerce participating businesses **305** within this radius area, then the standard retail prices can be set for all items at **803**. Locations and count-down times are then determined at **814** prior to returning final query search results to the browser of the services user **202** via the web pages delivery server **309** at **815**. When the results at **802** include those of any e-commerce participating business **305** within the sales price radius area, then the items returned outside of this area can be set to their standard retail prices at **804** and can be excluded from further calculations and held to be later submitted with the calculated results when all of their locations and count-down times are calculated at **814**.

The items within the sales process radius area and those equal to the exact distance of the radius area can then be selected for further processing at **805**. When a search result included more than one distinct product, such as when the query search is for a "camera", for example, and multiple manufacturers and models are returned, then the process can identify the list of unique product items at **806** and provide the first item to further the process at **807**. The first unique item can then be checked to determine whether the lowest price among the business locations that show this item to be in stock is a single lowest sales price. A lowest sales price may not be less than the price that an e-commerce participating business **305** may have approved to sell their product online and can be included with their inventory data updates in addition to their standard (e.g., in-store) retail price. When the lowest price in this first group of unique product items at **807** is that of a standard retail price—presumably from a non-participating business—or more than one lowest sales price, that is, there is a match, then all of the same unique items at any e-commerce participating business **305** in this query can be set to their lowest sales price at **808** to make the item more competitive.

The process can then check whether there are any additional product items that need to be calculated at **813**. When the lowest price at **807** is determined to be the lowest sale prices of a single e-commerce participating business **305**, then the higher priced e-commerce participating businesses **305** can be set to their lowest sales price at **809**. The lowest sales priced e-commerce participating businesses **305** (see FIG. **1**c) can then discount the price of their item by either a fixed dollar amount or a percentage from the next highest priced item in this group of items (e.g., a competitor's standard retail price or a competitor's lowest sales price that is now in effect). The resulting final price may not go below the lowest sales price of that e-commerce participating business **305** for that particular item. When the method chosen by the e-commerce participating business **305** is a dollar discount, then this calculation can be performed at **812**, otherwise a percentage discount can be performed at **811**. Either set of results can then proceed to determine whether any additional unique product items remain to be processed at **813**. When additional unique product items remain to be processed, the process can increment to the next item at **816** and can submit that item to determine whether the lowest price is a single lowest sales price at **807**. Once the competitive sales pricing algorithm has processed all of the returned items, then the locations and count-down times can be determined at **814** prior to returning final query search results to the browser of the services user **202** via the web pages delivery server **309** at **815**.

FIG. **5** shows the home web screen layout **900** for providing aggregated location-based services having main first level search buttons that include "Bank", "Buy", "Eat", and "Mail" buttons as would be delivered by the web pages delivery server **309**. Personality ads **901** can be displayed to surround a main logo **902** (e.g., UVerj) to provide random related graphics for ads, instructions, and/or sponsorships. Users can be provided with a log in button **903**. Once logged in, a user can set personal preferences such as email and text alert addresses for service alerts from the aggregated location-based services and/or to enable the user's favorites button **911**. A location button **904** can be used to enter the user's searched location address or to select the GPS location output provided by, for example, the user's mobile device. The sort button **905** can allow the user to set a sort order for the displayed data by either distance, price, or time, for example. The range button **912** can be used to set a radius distance from the user's location to include returned search results. When the user location is verified for either a physical address or a GPS output, then the user can press one of the search buttons, that is, the user can press or select one of "Bank" **906**, "Buy" **908**, "Eat" **909**, or "Mail" **910**. The search buttons allow for further search filtering options by displaying a second tier row of corresponding buttons below the first tier level of search buttons. Initially the first tier level of search buttons can be displayed in blue until one of the main four search buttons is pressed. Once pressed, the remaining still selectable first row search buttons turn red and the second row of blue relevant search buttons appear below. At any time any of the displayed buttons can be pressed to change the query string. Full search options are further detailed below with respect to FIGS. **6**a-d. Corporate and copyright links **907** can be displayed to anchor the bottom of the web pages allowing interested vendors and businesses to contact a company providing aggregated location-based services to, for example, request a contractual business relationship.

FIG. **6**a is a table that shows several menu buttons that can be selected for the bank search **1000**. While the data structure, labels and functionality of the buttons can be stored in the data store **211**, the rendering to the services users **202** can be performed by the web pages delivery server **309**. Data base tables in the data store **211** can be organized such that each record for an item, service, or location identifies each record as either a Bank, Buy, Eat, or Mail category and then further in another data base field as one of their subsets such as ATM or Drop-off for rapid searches. The table is organized so that all entries associated with buttons are underlined and bolded, such as "Bank" button **1001** (also depicted as **906** in FIG. **5**). To the right of each button is the description of the type of button, such as "Button" **1010** or "Drop-down" **1014**. To the right of the type of button is the function of the button, such as "Open Level" **1011** or "Search" **1013**. One of the first tier search buttons is the "Bank" button **1001**. Pressing the "Bank" button **1001** opens a row of buttons below it (Open Level **1011**) that displays buttons "All" **1002**, "ATM" **1003**, "Business" **1004**, which may also be labeled "Biz", and "Drive-thru" **1005**. When the "All" button **1002** is pressed, then the aggregated location-based services can return to the user's browser all bank and ATM locations within the radius distance from the user's selected location. When the "ATM" button **1003** is pressed, then the aggregated location-based services can open a row of buttons below it (Open Level **1016**) which then displays buttons "All" **1006**, and "Business" **1007**, which may also be labeled "Biz". When the "All" button **1006** is pressed, then the aggregated location-based services can return to the user's browser all ATM locations within the radius distance from the user's selected location. When the "Business" button **1007** is pressed, then the aggregated location-based

services can display a drop-down list of bank names to select to query only a single bank's ATMs within the radius distance from the user's selected location. Pressing the "Business" button **1004** in the second tier under the "Bank" button **1001** can also display a drop-down list of bank names to select a query for only a single bank's locations of all branches and ATMs within the radius distance from the user's selected location. Pressing the "Drive-thru" button **1005** can open a row of buttons below displaying the buttons "All" **1008** and "Business" **1009**, which may also be labeled "Biz". Pressing the "All" button **1008** can display to the user all drive-thru bank locations within the user's search parameters. When the "Business" button **1009** is pressed, then the aggregated location-based services can display a drop-down list of bank names to select a query for only a single bank's drive-thru within the radius distance from the user's selected location.

FIG. **6**b is a table that shows several menu buttons that can be selected for the buy search **1100**. While the data structure, labels and functionality of the buttons can be stored in the data store **211**, the rendering to the services users **202** can be performed by the web pages delivery server **309**. Data base tables in the data store **211** can be organized such that each record for an item, service, or location identifies each record as either a Bank, Buy, Eat, or Mail category and then further in another data base field as one of their subsets such as ATM or Drop-off for rapid searches. The table follows the same rules of interpretation as the table described above with respect to FIG. **6**a. The table is organized so that all entries associated with buttons are underlined and bolded, such as the "Buy" button **1101** (also depicted as **908** in FIG. **5**). One of the first tier search buttons is the "Buy" button **1101**. Pressing the "Buy" button **1101** can open a row of buttons below it that displays buttons "Business" **1102**, which may also be labeled "Biz", "Category" **1103**, "Item" **1104**, and "Service" **1107**. The buttons "Business" **1102** and "Category" **1103** both display a drop-down box to select prepopulated choices to then perform searches of locations by either a store name or category of a product, respectively. Pressing the "Item" button **1104** opens a third tier row below it consisting of two buttons, "Name" **1105** and "Product #" **1106**. Pressing the "Name" button **1105** opens a text box for the user to enter free text **1110**. When the user enters "camera" as the free text, for example, then the aggregated location-based services can perform a search **1111** of items having "camera" in the product name that can be found within the radius distance from the user's selected location. Pressing the "Product #" button **1106** can open a text box for the user to enter free text **1112**, such as a Universal Product Code (UPC). When the user enters "PN123ABC", for example, then the aggregated location-based services can perform a search **1113** of items having "PN123ABC" in the product number that can be found within the radius distance from the user's selected location. The "Service" button **1107** allows users to open a third tier row of buttons "Name" **1108** and "Product #" **1109**. Pressing the "Name" button **1108** opens a text box for the user to enter free text **1114**. When the user enters "lawn service", for example, then the aggregated location-based services performs a search **1115** for businesses that have lawn service in their service offerings that can be found within the radius distance from the user's selected location. Pressing the "Product #" button **1109** opens a text box for the user to enter free text **1116** (such as a UPC). When the user enters "PN123ABC", for example, then the aggregated location-based services can perform a search **1117** of services which have "PN123ABC" in the service's product number that can be found within the radius distance from the user's selected location.

FIG. **6**c is a table that shows several menu buttons that can be selected for the eat or dining search **1200**. While the data structure, labels and functionality of the buttons can be stored in the data store **211**, the rendering to the services users **202** can be performed by the web pages delivery server **309**. Data base tables in the data store **211** can be organized such that each record for an item, service, or location identifies each record as either a Bank, Buy, Eat, or Mail category and then further in another data base field as one of their subsets such as Cuisine or Drive-thru for rapid searches. The table follows the same rules of interpretation as the table described above with respect to FIG. **6**a. The table is organized so that all entries associated with buttons are underlined and bolded, such as "Eat" **1201** (also depicted as **909** in FIG. **5**). The second tier row of buttons consist of "All" **1202**, "Cuisine" **1203**, "Fast" **1204**, and "Drive-thru" **1205**. By pressing the "All" button **1202**, a wide range of restaurants within the radius distance from the user's selected location can be displayed. Pressing the "Cuisine" button **1203** displays a drop-down box to select from multiple cuisine options to display restaurants which serve the particular type of cuisine selected within the radius distance from the user's selected location. Pressing the "Fast" button **1204** opens the third tier row of buttons "All" **1206** and "Business" **1207**, which may also be labeled "Biz". Pressing the "All" button **1206** searches and displays all fast food restaurants within the radius distance from the user's selected location. Pressing the "Business" button **1207** displays a drop-down box to select a fast food business option to display the selected restaurant or chain within the radius distance from the user's selected location. Pressing the "Drive-thru" button **1205** opens its third tier row of buttons "All" **1208** and "Business" **1209**, which may also be labeled "Biz". Pressing the "All" button **1208** searches and displays all drive-thru restaurants within the radius distance from the user's selected location. Pressing the "Business" button **1209** displays a drop-down box to select a drive-thru business option to display the selected restaurant or chain within the radius distance from the user's selected location.

FIG. **6**d is a table that shows several menu buttons that can be selected for a mail search **1300**. While the data structure, labels and functionality of the buttons can be stored in the data store **211**, the rendering to the services users **202** can be performed by the web pages delivery server **309**. Data base tables in the data store **211** can be organized such that each record for an item, service, or location identifies each record as either a Bank, Buy, Eat, or Mail category and then further in another data base field as one of their subsets such as ALL or Drop-off for rapid searches. The table follows the same rules of interpretation as the table described above with respect to FIG. **6**a. The table is organized so that all entries associated with buttons are underlined and bolded, such as "Mail" **1301** (also depicted as **910** in FIG. **5**). The second tier row of buttons consist of "All" **1302**, "Drop-off" **1303**, "Services" **1306**, and "Supplies" **1309**. Pressing the "All" button **1302** displays mail facilities and mail drop-off locations within the radius distance from the user's selected location. Pressing the "Drop-off" button **1303** opens its third tier row of buttons "All" **1304** and "Business" **1305**, which may also be labeled "Biz". Pressing the "All" button **1304** searches and displays all mail drop-off locations within the radius distance from the user's selected location. Pressing the "Business" button **1305** displays a drop-down box to select a drop-off location business option to display the selected mail drop-off locations for the selected business

within the radius distance from the user's selected location. Pressing the "Services" button **1306** opens its third tier row of buttons "All" **1307** and "Business" **1308**, which may also be labeled "Biz". Pressing the "All" button **1307** searches and displays all mail services locations within the radius distance from the user's selected location. Pressing the "Business" button **1308** displays a drop-down box to select a mail services location business option to display the selected mail services locations for the selected business within the radius distance from the user's selected location. Pressing the "Supplies" button **1309** opens its third tier row of buttons "All" **1310** and "Business" **1311** (may be referred to as "Biz"). Pressing the "All" button **1310** searches and displays all mail supply locations within the radius distance from the user's selected location. Pressing the "Business" button **1311** (may be referred to as "Biz") displays a drop-down box to select a mail supply location business option to display the selected mail supply locations for the selected business within the radius distance from the user's selected location.

FIG. **7** illustrates several variations of a count-down clock that can be used with search results associated with the searches described above. While location business hours of operation and pick-up times can be stored in the data store **211** and can be calculated by the location, search, return data and server alerts **311** with the flows **700** and **800** (see FIGS. **3** and **4**), such times can also be adjusted for local time zones so that actual count-down times can be determined anywhere in the world. Searches made through the "Bank" button **906** (also **1001**), the "Buy" button **908** (also **1101**), or the "Eat" button **909** (also **1201**) can display a count-down clock associated with the hours of operation of an establishment resulting from such searches. For example, the count-down clock can indicate a time remaining before a bank, or a store, or a restaurant closes or a time before a bank, or a store, or a restaurant is to open. Three such count-down clocks are shown, including "closes in" **1401**, "closes in" **1402**, or "opens in" **1403**. The "closes in" **1401** count-down clock can be displayed in a color, such as green, to visually indicate that an amount of time that remains before the establishment is to close is more than a predetermined amount of time. The "closes in" **1402** count-down clock can be displayed in a different color, such as amber or yellow, to indicate that an amount of time that remains before the establishment is to close is less than a predetermined amount of time. The "opens in" **1403** count-down clock can be displayed in yet another color, such as red, to indicate that the establishment is closed and the amount of time displayed is the time remaining until opening.

Searches originating from the "Mail" button **910** (also **1301**) can result in substantially similar count-down clock displays, however, a mail button search can be followed by a "Drop-off" button **1303** search. Mail drop-off button searches will can display a "pickup in" **1404** count-down clock with, for example, a green-colored background, a "pickup in" **1405** count-down clock with, for example, an amber-colored or yellow-colored background, or a "pickup in" **1406** count-down clock with, for example, a red-colored background. The "closes in" **1401** and **1402** count-down clocks can display the time in hours and minutes until the particular location closes. The "opens in" **1403** count-down clock can display the time in hours and minutes until the particular location opens. The "pickup in" **1404**, **1405**, and **1406** count-down clocks can display the time in hours and minutes until the next pick up. Green-colored backgrounds can be used when the time displayed is, for example, more than 60 minutes. Amber- or yellow-colored backgrounds can be used when the time displayed is, for example, less than 60 minutes. Red-colored backgrounds can be used to indicate a closed store or that a last pick up has occurred for the day. When the "Mail" button **910** (also **1301**) is followed by the "Drop-off button" **1303** search, the time displayed can be in reference to the daily last mail pickup at each location.

The above-described home web screen layout and menu buttons are provided by way of example, and the present disclosure need not be so limited.

What is claimed is:

1. A method, comprising:

receiving on at least one computer [information] *data* associated with a selection made by a user from among a plurality of search options [concurrently] displayed to the user through a web browser;

receiving on the at least one computer [information] *data* associated with a geographical location of the user, such [information] *data* being produced by a device on which the web browser is displayed or provided by the user through the web browser;

receiving on the at least one computer [information] *data* associated with a geographical range of interest of the user;

prior to receiving the data associated with the selection, data associated with the geographical location of the user, and the data associated with the geographical range of the user:

receiving on the at least one computer participating business data from a plurality of participating businesses, the participating business data being supplied by the plurality or participating businesses;

storing by the at least one computer the participating business data in at least one first portion of at least one data store;

fetching by the at least one computer one or more web pages,

extracting by the at least one computer non-participating business data for a plurality of non-participating businesses from the one or more web pages, wherein the extracting includes using a location scraper, and wherein the extracted non-participating business data includes location information of the plurality of non-participating businesses;

storing by the at least one computer the non-participating business data in at least one second portion of the at least one data store;

automatically updating by the at least one computer one or more records to include the participating business data and the non-participating business data;

[processing on the at least one computer the information associated with the selection made, the geographical location, and the geographical range of interest] *querying by the at least one computer the at least one data store* to determine a plurality of businesses of interest *that are consistent with the user selected data and are located within the geographical range of interest from the geographical location*, the plurality of businesses of interest including [a one or more] *the plurality of* participating businesses and [one or more] *the plurality of* non-participating businesses;

determining on the at least one computer a price *of at least one service, at least one item, or a combination thereof* associated with each of the plurality of businesses of interest *identified by the querying from the one or more automatically updated records*;

[when a] *for each* business from the plurality of businesses of interest *that* is a participating business [and], *determining* the price associated with the participating business is not a lowest price of the prices associated with the plurality of businesses of interest[,] *and* automatically adjusting *by the at least one computer* the price associated with the participating business *to a price different from a standard price*;

[when a] *for each* business from the plurality of businesses of interest *that* is a non-participating business [and the price associated with the non-participating business is not a lowest price of the prices associated with the plurality of businesses of interest], automatically deciding to not adjust the price associated with the non-participating business; and

sending *by the at least one computer* the price associated with each of the plurality of *participating businesses of interest and non-participating* businesses of interest *identified by the querying* to the web browser for display;

wherein a record associated with the participating business stored [on the at least one computer] *in the at least one data store* is updatable by at least one participating business computer in communication with the at least one computer.

2. The method of claim **1**, wherein[: the price associated with each of the plurality of businesses of interest is the price of a service, or a item, or both, provided by the plurality of businesses of interest, and the service, or the item, or both,] *the at least one service, the at least one item, or the combination thereof* for which the price is determined[,] is based on the [information] *data* associated with the selection made by a user through the web browser.

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

determining *by the at least one computer* the lowest price of the prices associated with the plurality of businesses of interest; and

adjusting *by the at least one computer* the price associated with at least one of the [one or more] *plurality of* participating businesses to be the lowest price [when] *after determining* the lowest price is higher than a minimum price provided by the at least one of the [one or more] *the plurality of* participating businesses.

4. The method of claim **3**, further comprising:

adjusting *by the at least one computer* the price associated with the at least one of the [one or more] *plurality of* participating businesses based on a predetermined percentage of a standard retail price or on a predetermined amount below the standard retail price to produce an adjusted price,

wherein [when] *the adjusted price is set to the minimum price after determining* the adjusted price is lower than a minimum price provided by the at least one of the [one or more] *plurality of* participating businesses[, the adjusted price is set to the minimum price].

5. The method of claim **1**, wherein:

[when a business from the plurality of businesses of interest is a non-participating business, the price associated with the non-participating business is based on data collected] *the extracted non-participating business data is extracted* from a web site associated with the non-participating business.

6. The method of claim **1**, wherein:

the [price associated with the participating business is based on data] received [from the] participating business[, the data including] *data includes* a standard retail price, or discount pricing [information] *data*, or both.

7. The method of claim **1**, wherein:

the at least one computer determines a business [is deemed to be a business of interest when that business] has an available service or an available item associated with the selection made by the user *and thereby determines that the business is a business of interest*, the availability of the service or the availability of the item being determined based on data stored and associated with that business.

8. The method of claim **1**, wherein the [processing to determine the plurality of businesses of interest] *querying* comprises:

identifying *by the at least one computer* the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *the plurality of* non-participating businesses;

determining *by the at least one computer* whether the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses is within the geographical range of interest *from the geographical location*;

designating *by the at least one computer* the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses as the plurality of one or more businesses of interest [when] *after determining* the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *the plurality of* non-participating businesses is within the geographical range of interest *from the geographical location*; and

not designating *by the at least one computer* the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses as the plurality of businesses of interest [when] *after determining* the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *the plurality of* non-participating businesses is not within the geographical range of interest *from the geographical location*.

9. The method of claim **1**, wherein the plurality of search options [concurrently] displayed to the user through the web browser comprises a plurality of selectable search categories.

10. The method of claim **9**, wherein the plurality of search options [concurrently] displayed to the user through the web browser further comprises a plurality of selectable search sub-categories displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories.

11. The method of claim **9**, wherein the plurality of search options further comprises a text entry interface displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories and configured to enable text searches within the selected at least one of the plurality of selectable search categories.

12. A system, comprising:

at least one server configured to execute an application to communicate with one or more web sites to collect data from the web sites; and

a storage device configured to store data, including the data collected from the web sites,

wherein the at least one server is configured to:

receive participating business data from a plurality of participating businesses that have with the at least one computer, the participating business data being supplied by the plurality of participating businesses;

store the participating business data in at least one first portion of the storage device;

extract, with the application, non-participating business data for a plurality of non-participating businesses from the one or more web sites, the non-participating businesses being with the at least one computer, wherein the extracting includes using a location scraper, and wherein the extracted non-participating business data includes location information of the plurality of non-participating businesses;

store the non-participating business data in at least one second portion of the storage device;

automatically update one or more records to include the participating business data and the non-participating business data;

search the data stored in the storage device based on [information] *data* received associated with a selection made by a user from among a plurality of search options [concurrently] displayed to the user through a web browser, on a geographical location of the user, and on a geographical range of interest of the user, [the at least one server being configured to]

determine a plurality of businesses of interest based on the searched data, the plurality of businesses of interest *that are consistent with the user selected data and are located within the geographical range of interest from the geographical location* including [one or more] *the plurality of* participating businesses and [one or more] *the plurality of* non-participating businesses, [the at least one server being configured to]

determine a price *of at least one service, at least one item, or a combination thereof* associated with each of the plurality of businesses of interest *from the one or more automatically updated records*, [the at least one server being configured to]

for each business from the plurality of businesses of interest that is a participating business, automatically adjust the price associated with the participating business [when a business from the plurality of businesses of interest is a participating business and] *to a price different from a standard price after determining* the price associated with the participating business is not a lowest price of the prices associated with the plurality of businesses of interest, [the at least one server being configured to]

for each business from the plurality of businesses of interest that is a non-participating business, automatically decide not to adjust the price associated with the non-participating business [when a business from the plurality of businesses of interest is a non-participating business and the price associated with the non-participating business is not a lowest price of the prices associated with the plurality of businesses of interest], *and*

[wherein the at least one server is configured to] send the price associated with each of the plurality of businesses of interest to the web browser for display, and

wherein a record associated with the participating business stored on the storage device is updatable by at least one participating business computer in communication with the at least one server.

13. The system of claim **12**, wherein[: the price associated with each of the plurality of businesses of interest is the price of a service, or a item, or both, provided by the plurality of businesses of interest, and the service, or the item, or both,] *the at least one service, the at least one item, or the combination thereof* for which the price is determined[,] is based on the [information] *data* associated with the selection made by a user through the web browser.

14. The system of claim **12**, wherein:

the at least one server is configured to determine a lowest price from the prices associated with the plurality of businesses of interest, and

the at least one server is configured to adjust the price associated with the at least one of the [one or more] *plurality of* participating businesses to be the lowest price [when] *after determining* the lowest price is above a minimum price provided by the at least one of the [one or more] *plurality of* participating businesses.

15. The system of claim **14**, wherein:

the at least one server is configured to adjust the price associated with the at least one of the [one or more] *plurality of* participating businesses based on a predetermined percentage of a standard retail price or on a predetermined amount below the standard retail price to produce an adjusted price,

wherein [when] *the adjusted price is set to the minimum price after determining* the adjusted price is lower than a minimum price provided by the at least one of the [one or more] *plurality of* participating businesses[, the adjusted price is set to the minimum price].

16. The system of claim **12**, wherein:

[when a business from the plurality of businesses of interest is a non-participating business, the price associated with the non-participating business is based on data collected by the first server] *the extracted non-participating business data is extracted* from a web site associated with the non-participating business.

17. The system of claim **12**, wherein:

the [price associated with the participating business is based on data stored in the storage device and] received [from the] participating business[, the data including] *data includes* a standard retail price, or discount pricing [information] *data*, or both.

18. The system of claim **12**, wherein:

the at least one server is configured to execute the application to communicate with the one or more web sites to collect data from the web sites according to a predetermined schedule.

19. The system of claim **12**, wherein:

the data collected from the web sites includes store location and address, or a location name, or a location type, or a phone number, or hours of operation, or mail pick-up times, or package pick-up times, or an item price, or a service price, or inventory quantities, or a product name, or a product number, *or a universal product code (UPC),* or a combination thereof.

20. The system of claim **12**, wherein:

the at least one server is configured to authenticate a communication with a participating business to store data associated with that participating business in the storage device, and

the data associated with that participating business includes store location and address, or a location name, or a location type, or a phone number, or hours of operation, or mail pick-up times, or package pick-up times, or an item price, or a service price, or inventory quantities, or a product name, or a product number, or a universal product code (UPC), or a combination thereof.

21. The system of claim **12**, wherein determining the plurality of businesses of interest comprises:

identifying the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses;

determining whether the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses is within the geographical range of interest *from the geographical location*;

designating the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses as the plurality of businesses of interest [when] *after determining* the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses is within the geographical range of interest *from the geographical location*; and

not designating the [one or more] *plurality of* participating businesses and the [one or more] non-participating businesses as the plurality of businesses of interest [when] *after determining* the geographical location of the [one or more] *plurality of* participating businesses and the [one or more] *plurality of* non-participating businesses is not within the geographical range of interest *from the geographical location*.

22. The system of claim **12**, wherein the plurality of search options [concurrently] displayed to the user through the web browser comprises a plurality of selectable search categories.

23. The system of claim **22**, wherein the plurality of search options [concurrently] displayed to the user through the web browser further comprises a plurality of selectable search sub-categories displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories.

24. The system of claim **22**, wherein the plurality of search options further comprises a text entry interface displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories and configured to enable text searches within the selected at least one of the plurality of selectable search categories.

25. A method, comprising:

receiving on at least one computer [information] *data* associated with a selection made by a user from among a plurality of search options concurrently displayed to the user through a web browser;

receiving on the at least one computer [information] *data* associated with a geographical location of the user, such [information] *data* being produced by a device on which the web browser is displayed or provided by the user through the web browser;

receiving on the at least one computer [information] *data* associated with a geographical range of interest of the user;

prior to receiving the data associated with the selection, data associated with the geographical location of the user, and the data associated with the geographical range of the user:

receiving on the at least one computer participating business data from a plurality of participating businesses, the participating business data being supplied by the plurality of participating businesses;

storing by the at least one computer the participating business data in at least one first portion of at least one data store;

fetching by the at least one computer one or more web pages,

extracting by the at least one computer non-participating business data for a plurality of non-participating businesses from the one or more web pages, wherein the extracting includes using a location scraper, and wherein the extracted non-participating business data includes location information of the plurality of non-participating businesses;

storing by the at least one computer the non-participating business data in at least one second portion of the at least one data store;

automatically updating by the at least one computer one or more records to include the participating business data and the non-participating business data;

[processing on the at least one computer the information associated with the selection made, the geographical location, and the geographical range of interest] *querying by the at least one computer the at least one data store* to determine one or more businesses of interest *that are consistent with the user selected data and are located within the geographical range of interest from the geographical location*;

generating a timing [information] *data by the at least one computer from the one or more automatically updated records, the timing data* associated with *a time remaining before a pick up time at that business, and at least one of* a time remaining before a closing time of a business from the one of more businesses of interest, or [with] a time remaining before an opening time of that business, [or with a time remaining before a pick up time at that business,] the timing [information] *data* comprising a numeric time value having associated a color;

updating the timing [information] *data* comprising the numeric time value [periodically] *continuously and automatically by the at least one computer, the updating comprising automatically changing the numeric time value to reflect a change in the time remaining between the updated current time and the pick up time at the business, and at least one of a change in the time remaining between the updated current time and the of the closing time of that business or a change in the time remaining between the updated current time and the opening time of that business*;

sending *by the at least one computer* the timing [information] *data* comprising the numeric time value to the web browser for display; and

periodically sending [an] *the* updated timing [information] *data by the at least one computer* comprising the numeric time value to the web browser for display, *the updated timing data comprising a different numeric time value from the timing data prior to the updating.*

26. The method of claim **25**, wherein:

[when] *the timing data is green for the one or more automatically updated records having* the time remaining before the closing time or before the pick up time *that* is more than a predetermined time[, the color associated with the timing information is green].

27. The method of claim **25**, wherein:

[when] *the timing data is amber or yellow for the one or more automatically updated records having* the time remaining before the closing time or before the pick up time *that* is less than a predetermined time[, the color associated with the timing information is amber or yellow].

28. The method of claim 25, wherein:

the color associated with the time remaining before the opening time, or [when] *for the one or more automatically updated records having* the next pick-up time *that* is not the same day, is red.

29. The method of claim 25, further comprising:

sending *by the at least one computer at least a subset of the participating business data or non-participating business data* the price associated with each of the one or more businesses of interest to the web browser for display;

receiving *on the at least one computer* a selection of one of the one or more businesses of interest; and

generating *by the at least one computer* the timing [information] *data* for the selected business from the one or more businesses of interest.

30. The method of claim 25, wherein the plurality of search options concurrently displayed to the user through the web browser comprises a plurality of selectable search categories.

31. The method of claim 30, wherein the plurality of search options concurrently displayed to the user through the web browser further comprises a plurality of selectable search sub-categories displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories.

32. The method of claim 30, wherein the plurality of search options further comprises a text entry interface displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories and configured to enable text searches within the selected at least one of the plurality of selectable search categories.

33. A method, comprising:

receiving on at least one computer data associated with a selection made by a user from among a plurality of search options displayed to the user through a web browser;

receiving on the at least one computer data associated with a geographical location of the user, such data being produced by a device on which the web browser is displayed or provided by the user through the web browser;

receiving on the at least one computer data associated with a geographical range of interest of the user;

prior to receiving the computer data associated with the selection, the computer data associated with the geographical location of the user, and the computer data associated with the geographical range of the user:

receiving on the at least one computer participating business data from a plurality of participating businesses, the participating business data being supplied by the plurality of participating businesses;

storing by the at least one computer the participating business data in at least one first portion of at least one data store;

fetching by the at least one computer one or more web pages;

extracting by the at least one computer non-participating business data for a plurality of non-participating businesses from the one or more web pages, wherein the extracting includes using a location scraper, and wherein the extracted non-participating business data includes location information of the plurality of non-participating businesses;

storing by the at least one computer the non-participating business data in at least one second portion of the at least one data store;

automatically updating by the at least one computer one or more records to include the participating business data and the non-participating business data;

querying by the at least one computer the at least one data store to determine a plurality of businesses of interest that are consistent with the user selected data and are located within the geographical range of interest from the geographical location, the plurality of businesses of interest including a plurality of participating businesses and a plurality of non-participating businesses;

determining on the at least one computer a price of at least one service, at least one item, or a combination thereof associated with each of the plurality of businesses of interest identified by the querying from the one or more automatically updated records;

for each business from the plurality of businesses of interest that is a participating business, determining a condition, including a price condition and a location condition, associated with the participating business is satisfied and automatically adjusting by the at least one computer the price associated with the participating business to a price different from a standard price;

for each business from the plurality of businesses of interest that is a non-participating business determining the condition, including the location condition, associated with the non-participating business is satisfied and not adjusting by the at least one computer the price associated with the non-participating business; and

sending by the at least one computer the price associated with each of the plurality of businesses of interest identified by the querying to the web browser for display;

wherein a record associated with the participating business stored in the at least one data store is updatable by at least one participating business computer in communication with the at least one computer.

34. The method of claim 33, wherein the condition comprises the price associated with the business of interest not being a lowest price of the prices associated with the plurality of businesses of interest.

35. The method of claim 33, wherein the at least one service, the at least one item, or the combination thereof for which the price is determined is based on the data associated with the selection made by a user through the web browser.

36. The method of claim 33, further comprising:

determining by the at least one computer the lowest price of the prices associated with the plurality of businesses of interest; and

adjusting by the at least one computer the price associated with at least one of the plurality of participating businesses to be the lowest price after determining the lowest price is higher than a minimum price provided by the at least one of the plurality of participating businesses.

37. The method of claim 36, further comprising:

adjusting by the at least one computer the price associated with the at least one of the plurality of participating businesses based on a predetermined percentage of a standard retail price or on a predetermined amount below the standard retail price to produce an adjusted price,

wherein the adjusted price is set to the minimum price after determining the adjusted price is lower than a minimum price provided by the at least one of the plurality of participating businesses.

38. The method of claim 33, wherein:

the extracted non-participating business data is extracted from a web site associated with the non-participating business.

39. The method of claim 33, wherein:

the received participating business data includes standard retail price, or discount pricing data, or both.

40. The method of claim 33, wherein:

the at least one computer determines a business to be a business of interest after determining that business has an available service or an available item associated with the selection made by the user, the availability of the service or the availability of the item being determined based on data stored and associated with that business.

41. The method of claim 33, wherein the querying comprises:

identifying by the at least one computer the geographical location of the plurality of participating businesses and the plurality of non-participating businesses;

determining by the at least one computer whether the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is within the geographical range of interest from the geographical location;

designating by the at least one computer the plurality of participating businesses and the plurality of non-participating businesses as the plurality of one or more businesses of interest after determining the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is within the geographical range of interest from the geographical location; and

not designating by the at least one computer the plurality of participating businesses and the plurality of non-participating businesses as the plurality of businesses of interest after determining the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is not within the geographical range of interest from the geographical location.

42. The method of claim 33, wherein the plurality of search options displayed to the user through the web browser comprises a plurality of selectable search categories.

43. The method of claim 42, wherein the plurality of search options displayed to the user through the web browser further comprises a plurality of selectable search sub-categories displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories.

44. The method of claim 42, wherein the plurality of search options further comprises a text entry interface displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories and configured to enable text searches within the selected at least one of the plurality of selectable search categories.

45. A system, comprising:

at least one server configured to execute an application to communicate with one or more web sites to collect data from the web sites; and

a storage device configured to store data, including the data collected from the web sites,

wherein the at least one server is configured to:

receive participating business data from a plurality of participating businesses, the participating business data being supplied by the plurality of participating businesses;

store the participating business data in at least one first portion of the storage device;

extract, with the application, non-participating business data for a plurality of non-participating businesses from the one or more web sites, wherein the extracting includes using a location scraper, and wherein the extracted non-participating business data includes location information of the plurality of non-participating businesses;

store the non-participating business data in at least one second portion of the storage device;

automatically update one or more records to include the participating business data and the non-participating business data;

search the data stored in the storage device based on data received associated with a selection made by a user from among a plurality of search options displayed to the user through a web browser, on a geographical location of the user, and on a geographical range of interest of the user,

determine a plurality of businesses of interest based on the searched data, the plurality of businesses of interest that are consistent with the user selected data and are located within the geographical range of interest from the geographical location including a plurality of participating businesses and plurality of non-participating businesses,

determine a price of at least one service, at least one item, or a combination thereof associated with each of the plurality of businesses of interest from the one or more automatically updated records,

for each business from the plurality of businesses of interest that is a participating business, automatically adjust the price associated with the business to a price different from a standard price after determining a condition, including a price condition and a location condition, associated with the participating business is satisfied,

for each business from the plurality of businesses of interest that is a non-participating business, maintaining the price associated with the non-participating business after determining the condition, including the price condition and the location condition, associated with the participating business is satisfied, and

send the price associated with each of the plurality of businesses of interest to the web browser for display, and

wherein a record associated with the participating business stored on the storage device is updatable by at least one participating business computer in communication with the at least one server.

46. The system of claim 45, wherein the condition comprises the price associated with the business of interest not being a lowest price of the prices associated with the plurality of businesses of interest.

47. The system of claim 45, wherein the at least one service, the at least one item, or the combination thereof for

which the price is determined is based on the data associated with the selection made by a user through the web browser.

48. The system of claim 45, wherein:

the at least one server is configured to determine a lowest price from the prices associated with the plurality of businesses of interest, and

the at least one server is configured to adjust the price associated with the at least one of the plurality of participating businesses to be the lowest price after determining the lowest price is above a minimum price provided by the at least one of the plurality of participating businesses.

49. The system of claim 48, wherein:

the at least one server is configured to adjust the price associated with the at least one of the plurality of participating businesses based on a predetermined percentage of a standard retail price or on a predetermined amount below the standard retail price to produce an adjusted price,

wherein the adjusted price is set to the minimum price after determining the adjusted price is lower than a minimum price provided by the at least one of the plurality of participating businesses.

50. The system of claim 45, wherein:

the extracted non-participating business data is extracted from a web site associated with the non-participating business.

51. The system of claim 45, wherein:

the participating business data includes a standard retail price, or discount pricing data, or both.

52. The system of claim 45, wherein:

the at least one server is configured to execute the application to communicate with the one or more web sites to collect data from the web sites according to a predetermined schedule.

53. The system of claim 45, wherein:

the data collected from the web sites includes store location and address, or a location name, or a location type, or a phone number, or hours of operation, or mail pick-up times, or package pick-up times, or an item price, or a service price, or inventory quantities, or a product name, or a product number, or a universal product code (UPC), or a combination thereof.

54. The system of claim 45, wherein:

the at least one server is configured to authenticate a communication with a participating business to store data associated with that participating business in the at least one first portion of the storage device, and

the data associated with that participating business includes store location and address, or a location name, or a location type, or a phone number, or hours of operation, or mail pick-up times, or package pick-up times, or an item price, or a service price, or inventory quantities, or a product name, or a product number, or a universal product code (UPC), or a combination thereof.

55. The system of claim 45, wherein determining the plurality of businesses of interest comprises:

identifying the geographical location of the plurality of participating businesses and the plurality of non-participating businesses;

determining whether the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is within the geographical range of interest from the geographical location;

designating the plurality of participating businesses and the plurality of non-participating businesses as the plurality of businesses of interest after determining the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is within the geographical range of interest from the geographical location; and

not designating the plurality of participating businesses and the plurality of non-participating businesses as the plurality of businesses of interest after determining the geographical location of the plurality of participating businesses and the plurality of non-participating businesses is not within the geographical range of interest from the geographical location.

56. The system of claim 45, wherein the plurality of search options displayed to the user through the web browser comprises a plurality of selectable search categories.

57. The system of claim 56, wherein the plurality of search options displayed to the user through the web browser further comprises a plurality of selectable search subcategories displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories.

58. The system of claim 56, wherein the plurality of search options further comprises a text entry interface displayed to the user through the web browser in response to a selection of at least one of the plurality of selectable search categories and configured to enable text searches within the selected at least one of the plurality of selectable search categories.

59. The method of claim 25, wherein:

updating the timing data further comprises changing the color; and

the updated timing data periodically sent to the web browser for display further comprises a different color from the timing data prior to the updating.

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