

(51) International Patent Classification:
G06Q 30/02 (2012.01)(21) International Application Number:
PCT/US2015/015398(22) International Filing Date:
11 February 2015 (11.02.2015)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
61/939,990 14 February 2014 (14.02.2014) US(71) Applicant: **RETAILMENOT, INC.** [US/US]; 301 Congress Avenue, Suite 700, Austin, TX 78701 (US).(72) Inventors: **BELL, Rachel, Renee**; 1908 Rogge Lane, Austin, TX 78723 (US). **SHIFFERT, Nicholas, James**; 301 Congress Avenue, Suite 700, Austin, TX 78701 (US).(74) Agent: **TUCKER, Joshua, L.**; Pillsbury Winthrop Shaw Pittman LLP, P.O. Box 10500, McLean, VA 22102 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM,

AO, AT, AU, AZ, BA, BB, BG, BH, BN, BR, BW, BY, BZ, CA, CH, CL, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN, IR, IS, JP, KE, KG, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI, NO, NZ, OM, PA, PE, PG, PH, PL, PT, QA, RO, RS, RU, RW, SA, SC, SD, SE, SG, SK, SL, SM, ST, SV, SY, TH, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LR, LS, MW, MZ, NA, RW, SD, SL, ST, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, RU, TJ, TM), European (AL, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR, HU, IE, IS, IT, LT, LU, LV, MC, MK, MT, NL, NO, PL, PT, RO, RS, SE, SI, SK, SM, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, KM, ML, MR, NE, SN, TD, TG).

Published:

— with international search report (Art. 21(3))

(54) Title: EVENT-BASED OFFERS FOR A GEOFENCED GEOGRAPHIC AREA

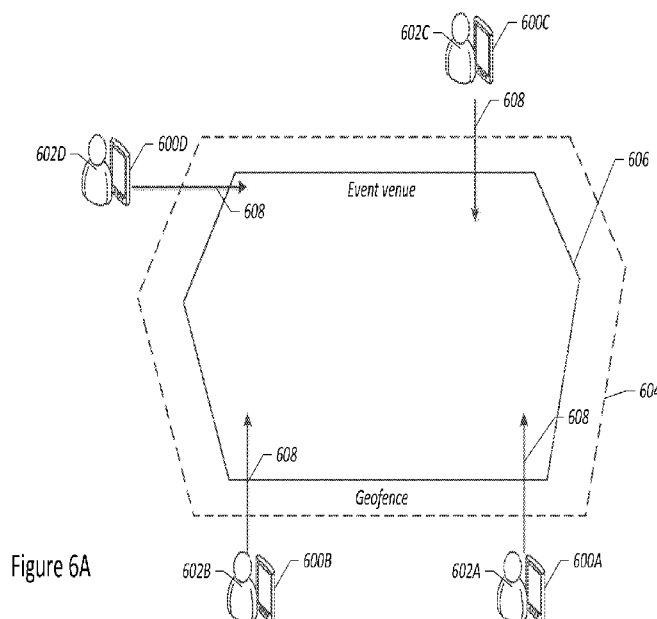


Figure 6A

(57) **Abstract:** Provided are systems, methods, and computer-readable media for providing an event-based offer. An event-based offer may be created in response to a request for a merchant. An event-based offer may be associated with event criteria that define when an event-based offer is to be provided to users. Mobile user devices of users attending an event may cross an event geofence at an event venue. Event data associated with an event may be obtained, and an event-based offer may be sent to the mobile user devices if the event data meets the event criteria.



EVENT-BASED OFFERS FOR A GEOFENCED GEOGRAPHIC AREA**CROSS-REFERENCE TO RELATED APPLICATIONS**

[0001] The present application claims the benefit of U.S. Provisional Patent Application 61/939,990, titled EVENT-BASED OFFERS FOR A GEOFENCED GEOGRAPHIC AREA, filed 14 February 2014, the contents of which are incorporated by reference in their entirety for all purposes.

BACKGROUND OF THE INVENTION**1. Field of the Invention**

[0002] This invention relates generally to merchant offers and more particularly to offer-discovery systems.

2. Description of the Related Art

[0003] Offer-discovery systems provide a service by which merchants inform customers of offers, for example deals (e.g., discounts, favorable shipping terms, or rebates) or coupons (e.g., printable coupons for in-store use or coupon codes for use online). Typically, these systems store information about offers from a relatively large number of merchants and provide an interface by which customers can identify offers in which the customer is likely to be interested. Merchants have found the offer-discovery systems to be a relatively effective form of marketing, as cost-sensitive consumers are drawn to such systems due to their relatively comprehensive listings of offers, and as a result, the number of offers listed on such systems has increased in recent years. One consequence of this increase is that users (e.g., prospective customers of the merchants) face an increasingly complex task of identifying relevant offers on offer-discovery systems and recalling information about the offer when making a purchase. Additionally, the timing and speed of distribution of offers to a large number of prospective customers in a manner that encourages redemption remains challenging.

SUMMARY OF THE INVENTION

[0004] Various embodiments of methods, systems, and computer-readable media for providing an event-based offer are provided. In some embodiments, a computer-implemented method is provided that includes obtaining, by one or more processors, an event geofence defining a perimeter around a geographic area that includes an event venue and obtaining, by one or more processors, one or more event criteria associated with an event-based offer. The method further includes identifying, by one or more processors, a plurality of mobile user devices within the event geofence and obtaining, by one or more processors, event data associated with an event occurring at the event venue. The method also includes comparing, by one or more processors, the event data to the event criteria to determine whether the event criteria are met and providing over a network, by one or more processors, the event-based offer to the plurality of mobile user devices within the event geofence when the one or more event criteria are met.

[0005] In some embodiments, a tangible non-transitory computer-readable media is provided. The computer-readable media stores instructions that, when executed by one or more processors, cause the one or more processors to perform operations that include obtaining, by one or more processors, an event geofence defining a perimeter around a geographic area that includes an event venue and obtaining, by one or more processors, one or more event criteria associated with an event-based offer. The computer-readable media stores instructions that, when executed by one or more processors, cause the one or more processors to perform operations that further include: identifying, by one or more processors, a plurality of mobile user devices within the event geofence and obtaining, by one or more processors, event data associated with an event occurring at the event venue. The computer-readable media stores instructions that, when executed by one or more processors, cause the one or more processors to perform operations that also include: comparing, by one or more processors, the event data to the event criteria to determine whether the event criteria are met and providing over a network, by one or more processors, the event-based offer to the plurality of mobile user devices within the event geofence when the one or more event criteria are met.

[0006] Additionally, in some embodiments, a computer-implemented method is provided that includes receiving, at an offers engine, a request for an event-based offer from a merchant and

generating, via the offers engine, an event-based offer having a merchant logo and an offer description, the event-based offer including an offer code redeemable at the merchant. The method also includes obtaining, at the offers engine, event data about an event occurring at the event venue and providing over a network, from the offers engine, the event-based offer to a plurality of mobile user devices located at the event venue upon based on the event data.

[0007] In some embodiments, a tangible non-transitory computer-readable media is provided. The computer-readable media stores instructions that, when executed by one or more processors, cause the one or more processors to perform operations that include receiving, at an offers engine, a request for an event-based offer from a merchant and generating, via the offers engine, an event-based offer having a merchant logo and an offer description, the event-based offer including an offer code redeemable at the merchant. The computer-readable media stores instructions that, when executed by one or more processors, cause the one or more processors to perform operations that further include: obtaining, at the offers engine, event data about an event occurring at the event venue and providing over a network, from the offers engine, the event-based offer to a plurality of mobile user devices located at the event venue upon based on the event data.

BRIEF DESCRIPTION OF THE DRAWINGS

[0008] Figure 1 illustrates an example of an offer-discovery system in accordance with some embodiments;

[0009] Figure 2 illustrates an example of a process by which an offers engine in the offer-discovery system of Figure 1, in some embodiments, obtains and processes data related to offers;

[0010] Figure 3 illustrates an example of a process by which a user device in the offer-discovery system of Figure 1, in some embodiments, obtains and presents to users data related to offers;

[0011] Figure 4 is a block diagram of a process for creating an event-based offer in accordance with an embodiment of the present invention;

[0012] Figure 5 is a block diagram of a process for providing event-based offers to users in accordance with an embodiment of the present invention;

[0013] Figures 6A-6D are schematic diagrams showing mobile user devices interacting with an event geofence and receiving an event-based offer in accordance with an embodiment of the present invention;

[0014] Figures 7A-7C are schematic diagrams depicting examples of event-based offers in accordance with an embodiment of the present invention; and

[0015] Figure 8 is a block diagram of a computer in accordance with an embodiment of the present invention.

[0016] While the invention is susceptible to various modifications and alternative forms, specific embodiments thereof are shown by way of example in the drawings and will herein be described in detail. The drawings may not be to scale. It should be understood, however, that the drawings and detailed description thereto are not intended to limit the invention to the particular form disclosed, but to the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present invention as defined by the appended claims.

DETAILED DESCRIPTION

[0017] As discussed in more detail below, provided in some embodiments are systems, methods, and computer-readable media for creating and providing event-based offers. An event-based offer may be created in response to a request for a merchant, and an event-based offer may be associated with event criteria that define when an event-based offer is to be provided to users. Mobile user devices of users attending an event may cross an event geofence around an event venue. Event data associated with an event may be obtained, and an event-based offer may be sent to the mobile user devices within the event geofence if the event data meets the event criteria. The event-based offers may include, for example, time-limited offers, trigger-based offers, and post-event exclusive offers.

[0018] In some instances, users may redeem an event-based offer at the event venue or save the event-based offer for redemption after the event and at a different location. Advantageously, the techniques described herein enable easier, more efficient, and faster distribution of event-based offers to large number of users, (e.g., greater than 5,000, greater than 10,000, greater than 15,000, greater than 20,000 users, greater than 30,000 users, and so on). In some instances, all such users and associated mobile user devices may receive an event-based offer at or a few seconds after event criteria are met. Additionally, the event-based offer techniques described herein enable merchants who do not have advertisements or sponsorships in an event venue to reach users at an event venue attending an event.

[0019] Figure 1 shows an embodiment of an offer-discovery system 10. The exemplary system 10 includes an offers engine 12 that, in some embodiments, is capable of reducing the burden on users attempting to identify offers relevant to them from among a relatively large pool of offers (e.g., more than 100, more than 1,000, or more than 10,000). To this end and others, the offers engine 12 maintains device-independent user profiles (or portions of user profiles) by which offers interfaces may be relatively consistently configured across multiple user devices with which the user interacts with the offers engine 12. Further, the offers engine 12, in some embodiments, includes a number of features expected to facilitate relatively quick identification of relevant offers by a user, features that include cached storage of data related to likely relevant offers, faceted presentation of offers by which users can select among offers within various categories, and a number of other techniques described below for assisting with offer identification. The offers engine 12 is also expected to facilitate relatively low operating costs by, in some embodiments, automating parts of the process by which offer related data is acquired from sources, such as affiliate networks merchants, administrators, or users, and automating parts of the process by which transaction data indicative of acceptance, settlement, or clearing of offers is obtained and processed.

[0020] These and other benefits are described in greater detail below, after introducing the components of the system 10 and describing their operation. It should be noted, however, that not all embodiments necessarily provide all of the benefits outlined herein, and some embodiments may provide all or a subset of these benefits or different benefits, as various engineering and cost tradeoffs are envisioned.

[0021] In the illustrated embodiment, the offers engine 12 includes a control module 14, an application program interface (API) server 16, a web server 18, an ingest module 20, an administration module 22, a data store 24, and a cache server 23. These components, in some embodiments, communicate with one another in order to provide the functionality of the offers engine 12 described herein. As described in greater detail below, in some embodiments, the data store 24 may store data about offers and users' interactions with those offers; the cache server 23 may expedite access to this data by storing likely relevant data in relatively high-speed memory, for example, in random-access memory or a solid-state drive; the web server 20 may serve webpages having offers interfaces by which users discover relevant offers; the API server 16 may serve data to various applications that process data related to offers; the ingest module 20 may facilitate the intake of data related to offers from affiliate networks, users, administrators, and merchants; and the administration module 22 may facilitate curation of offers presented by the API server 16 and the web server 18. The operation of these components 16, 18, 20, 22, 24, and 23 may be coordinated by the control module 14, which may bidirectionally communicate with each of these components or direct the components to communicate with one another. Communication may occur by transmitting data between separate computing devices (e.g., via transmission control protocol/internet protocol (TCP/IP) communication over a network), by transmitting data between separate applications or processes on one computing device; or by passing values to and from functions, modules, or objects within an application or process, e.g., by reference or by value.

[0022] Among other operations, the offers engine 12 of this embodiment presents offers to users; receives data from users about their interaction with the offers (for example, the user's favorite offers or offer attributes; statistics about the offers the user has identified, accepted, or otherwise provided data about; or the identity of other users with whom the user communicates about offers and the content of those communications; provided that users opt to have such data obtained); customizes the presentation of offers based on this received data; and facilitates the processing of compensation from merchants (either directly or through affiliate networks) as a result of users accepting (or taking a specific action, like clicking or viewing, in some embodiments or use cases) offers. This interaction with users may occur via a website viewed on a desktop computer, tablet, or a laptop of the user. And in some cases, such interaction occurs via a mobile website viewed on a smart phone, tablet, or other mobile user device, or via a

special-purpose native application executing on a smart phone, tablet, or other mobile user device. Presenting and facilitating interaction with offers across a variety of devices is expected to make it easier for users to identify and recall relevant offers at the time the user is interested in those offers, which is often different from the time at which the user first discovers the offers. In particular, some embodiments allow users to store data indicative of offers relevant to that user using one device, such as a desktop computer in the user's home, and then view those offers at a later time, such as on a native mobile application when in a retail store.

[0023] To illustrate an example of the environment in which the offers engine 12 operates, the illustrated embodiment of Figure 1 includes a number of components with which the offers engine 12 communicates: mobile user devices 28 and 30; a desk-top user device 32; a third party server 34; an administrator device 36; merchant servers 38, 40, and 42; and affiliate-network servers 44 and 46. Each of these devices communicates with the offers engine 12 via a network 48, such as the Internet or the Internet in combination with various other networks, like local area networks, cellular networks, or personal area networks.

[0024] The mobile user devices 28 and 30 may be smart phones, tablets, gaming devices, or other hand-held networked computing devices having a display, a user input device (e.g., buttons, keys, voice recognition, or a single or multi-touch touchscreen), memory (such as a tangible, machine-readable, non-transitory memory), a network interface, a portable energy source (e.g., a battery), and a processor (a term which, as used herein, includes one or more processors) coupled to each of these components. The memory of the mobile user devices 28 and 30 may store instructions that when executed by the associated processor provide an operating system and various applications, including a web browser 50 or a native application 52. The native application 52, in some embodiments, is operative to provide an offers interface that communicates with the offers engine 12 and facilitates user interaction with data from the offers engine 12. Similarly, the web browser 50 may be configured to receive a website from the offers engine 12 having data related to deals and instructions (for example, instructions expressed in JavaScript) that when executed by the browser (which is executed by the processor) cause the mobile user device to communicate with the offers engine 12 and facilitate user interaction with data from the offers engine 12. The native application 52 and the web browser 50, upon rendering a webpage from the offers engine 12, may generally be referred to as client

applications of the offers engine 12, which in some embodiments may be referred to as a server. Embodiments, however, are not limited to client/server architectures, and the offers engine 12, as illustrated, may include a variety of components other than those functioning primarily as a server.

[0025] The desk-top user device 32 may also include a web browser 54 that serves the same or similar role as the web browser 50 in the mobile user device 30. In addition, the desk-top user device 32 may include a monitor; a keyboard; a mouse; memory; a processor; and a tangible, non-transitory, machine-readable memory storing instructions that when executed by the processor provide an operating system and the web browser.

[0026] Third-party offer server 34 may be configured to embed data from the offers engine 12 in websites or other services provided by the third-party offer server 34. For example, third-party offer server 34 may be a server of a social networking service upon which users post comments or statistics about offers with which the user has interacted, or the users may use the offer server 34 to recommend offers to others or identify offers to avoid. In another example, third-party offer server 34 may include various services for publishing content to the Web, such as blogs, tweets, likes, dislikes, ratings, and the like. In another example, third-party offer server 34 provides services by which third-parties curate offers hosted by the offers engine 12.

[0027] Merchant servers 38, 40, and 42 host websites or other user accessible content interfaces by which users can accept offers hosted by the offers engine 12. In some embodiments, and in some use cases, the merchant servers 38, 40, and 42 host retail websites that present a plurality of items for sale by the merchant, a subset of which may include items to which offers apply, thereby generally making the item for sale more desirable to cost-sensitive consumers than under the terms presented by the merchant in the absence of the offer. For example, the offers may include free or discounted shipping, a discounted price, a bulk discount, a rebate, a referral award, or a coupon, such as a coupon acceptable by presenting a coupon code during checkout on the merchant website, or a printable or displayable coupon (e.g., on the screen of a mobile device) for in-store use, the printable or otherwise displayable coupon having, in some cases, a machine readable code (e.g., a bar code or QR code for display and scanning, or a code passed via near-field communication or BluetoothTM). In some embodiments, the merchant website

includes a checkout webpage having an interface for the user to enter payment information and a coupon code, and the merchant website (either with logic on the client side or the server-side) may validate the coupon code entered by the user and, upon determining that the coupon code is valid, adjust the terms presented to the user for acceptance in accordance with the offer.

[0028] Some merchants may limit the number of uses of a given coupon, limit the duration over which the coupon is valid, or apply other conditions to use of the coupon, each of which may add to the burden faced by users seeking to find valid coupons applicable to an item the user wishes to purchase. As noted above, some embodiments of the offers engine 12 are expected to mitigate this burden.

[0029] Further, in some embodiments, the merchant servers 38, 40, and 42 provide data about offers to the offers engine 12 or (i.e., and/or, as used herein, unless otherwise indicated) data about transactions involving offers. In use cases in which the operator of the offers engine 12 has a direct affiliate-marketing relationship with one of the merchants of the merchant servers 38, 40, or 42, the transaction data may provide the basis for payments by the merchant directly to the operator of the offers engine 12. For example, payments may be based on a percentage of transactions to which offers were applied, a number of sales to which offers were applied, or a number of users who viewed or selected or otherwise interacted with an offer by the merchant.

[0030] Affiliate-network servers 44 and 46, in some embodiments and some use cases, are engaged when the entity operating the offers engine 12 does not have a direct affiliate-marketing relationship with the merchant making a given offer. In many affiliate marketing programs, merchants compensate outside entities, such as third-party publishers, for certain activities related to sales by that merchant and spurred by the outside entity. For example, in some affiliate marketing programs, merchants compensate an affiliate, such as the entity operating the offers engine 12, in cases in which it can be shown that the affiliate provided a given coupon code to a given user who then used that coupon code in a transaction with the merchant. Demonstrating this connection to the merchant is one of the functions of the affiliate-networks.

[0031] Affiliate-networks are used, in some use cases. For example, many coupon codes are not affiliate specific and are shared across multiple affiliates, as the merchant may desire the widest distribution of a relatively easily remembered coupon code. Accordingly, in some use cases, the

merchant, affiliate network, and affiliate cooperate to use client-side storage to indicate the identity of the affiliate that provided a given coupon code to a user. To this end, in some embodiments, when a webpage offers interface is presented by the offers engine 12 in the web browsers 50 or 54, that webpage is configured by the offers engine 12 to include instructions to engage the affiliate network server 44 or 46 when a user selects an offer, for example, by clicking on, touching, or otherwise registering a selection of an offer. The website provided by the offers engine 12 responds to such a selection by, in some embodiments, transmitting a request to the appropriate affiliate-network server 44 or 46 (as identified by, for example, an associated uniform resource locator (URL) in the webpage) for a webpage or portion of a webpage (e.g., browser-executable content). The request to the affiliate-network server may include (e.g., as parameters of the URL) an identifier of the affiliate, the offer, and the merchant, and the returned content from the affiliate-network server may include instructions for the web browser 50 or 54 to store in memory (e.g., in a cookie, or other form of browser-accessible memory, such as a SQLite database or in a localStorage object via a localStorage.setItem command) an identifier of the affiliate that provided the offer that was selected.

[0032] The webpage from the offers engine 12 (or the content returned by the affiliate network server 44 or 46) may further include browser instructions to navigate to the website served by the merchant server 38, 40, or 42 of the merchant associated with the offer selected by the user, and in some cases to the webpage of the item or service associated with the offer selected by the user. When a user applies the offer, for example by purchasing the item or service or purchasing the item or service with the coupon code, the merchant server 38, 40, or 42 may transmit to the user device upon which the item was purchased browser instructions to request content from the affiliate network server 44 or 46, and this requested content may retrieve from the client-side memory the identifier of the affiliate, such as the operator of the offers engine 12, who provided the information about the offer to the user. The affiliate network may then report to the merchant the identity of the affiliate who should be credited with the transaction, and the merchant may compensate the affiliate (or the affiliate network may bill the merchant, and the affiliate network may compensate the affiliate), such as the operator of the offers engine 12. Thus, the affiliate network in this example acts as an intermediary, potentially avoiding the need for cross-domain access to browser memory on the client device, a feature which is generally not supported by web browsers for security reasons. (Some embodiments may, however, store in client-side

browser-accessible memory an identifier of the affiliate upon user selection of the offer, with this value designated as being accessible via the merchant's domain, and provide the value to the merchant upon a merchant request following acceptance of the offer, without passing the identifier through an affiliate network, using a browser plug-in for providing cross-domain access to browser memory or a browser otherwise configured to provide such access.)

[0033] A similar mechanism may be used by the native application 52 for obtaining compensation from merchants. In some embodiments, the native application 52 includes or is capable of instantiating a web browser, like the web browser 50, in response to a user selecting an offer presented by the native application 52. The web browser instantiated by the native application 52 may be initialized by submitting the above-mentioned request for content to the affiliate-network server 44 or 46, thereby storing an identifier of the affiliate (i.e., the entity operating the offers engine 12 in this example) in client-side storage (e.g., in a cookie, localStorage object, or a database) of the mobile user device 28, and thereby navigating that browser to the merchant website. In other use cases, the operator of the offers engine 12 has a direct relationship with the merchant issuing the offer, and the selection of an offer within the native application 52 or the desktop or mobile website of the offers engine 12 (generally referred to herein as examples of an offer interface) may cause the user device to request a website from the associated merchant with an identifier of the affiliate included in the request, for example as a parameter of a URL transmitted in a GET request to the merchant server 38, 40, or 42 for the merchant's website.

[0034] Administrator device 36 may be a special-purpose application or a web-based application operable to administer operation of the offers engine 12, e.g., during use by employees or agents of the entity operating the offers engine 12. In some embodiments, the administration module 22 may communicate with the administrator device 36 to present an administration interface at the administrator device 36 by which an administrator may configure offers interfaces presented to users by the offers engine 12. In some embodiments, the administrator may enter offers into the offers engine 12; delete offers from the offers engine 12; identify offers for prominent placement within the offers interface (e.g., for initial presentation prior to user interaction); moderate comments on offers; view statistics on offers, merchants, or users; add content to enhance the presentation of offers; or categorize offers.

[0035] Thus, the offers engine 12, in some embodiments, operates in the illustrated environment by communicating with a number of different devices and transmitting instructions to various devices to communicate with one another. The number of illustrated merchant servers, affiliate network servers, third-party servers, user devices, and administrator devices is selected for explanatory purposes only, and embodiments are not limited to the specific number of any such devices illustrated by Figure 1.

[0036] The offers engine 12 of some embodiments includes a number of components introduced above that facilitate the discovery of offers by users. For example, the illustrated API server 16 may be configured to communicate data about offers via an offers protocol, such as a representational-state-transfer (REST)-based API protocol over hypertext transfer protocol (HTTP). Examples of services that may be exposed by the API server 18 include requests to modify, add, or retrieve portions or all of user profiles, offers, or comments about offers. API requests may identify which data is to be modified, added, or retrieved by specifying criteria for identifying records, such as queries for retrieving or processing information about particular categories of offers, offers from particular merchants, or data about particular users. In some embodiments, the API server 16 communicates with the native application 52 of the mobile user device 28 or the third-party offer server 34.

[0037] The illustrated web server 18 may be configured to receive requests for offers interfaces encoded in a webpage (e.g. a collection of resources to be rendered by the browser and associated plug-ins, including execution of scripts, such as JavaScriptTM, invoked by the webpage). In some embodiments, the offers interface may include inputs by which the user may request additional data, such as clickable or touchable display regions or display regions for text input. Such inputs may prompt the browser to request additional data from the web server 18 or transmit data to the web server 18, and the web server 18 may respond to such requests by obtaining the requested data and returning it to the user device or acting upon the transmitted data (e.g., storing posted data or executing posted commands). In some embodiments, the requests are for a new webpage or for data upon which client-side scripts will base changes in the webpage, such as XMLHttpRequest requests for data in a serialized format, e.g. JavaScriptTM object notation (JSON) or extensible markup language (XML). The web server 18 may communicate with web browsers, such as the web browser 50 or 54 executed by user devices 30

or 32. In some embodiments, the webpage is modified by the web server 18 based on the type of user device, e.g., with a mobile webpage having fewer and smaller images and a narrower width being presented to the mobile user device 30, and a larger, more content rich webpage being presented to the desk-top user device 32. An identifier of the type of user device, either mobile or non-mobile, for example, may be encoded in the request for the webpage by the web browser (e.g., as a user agent type in an HTTP header associated with a GET request), and the web server 18 may select the appropriate offers interface based on this embedded identifier, thereby providing an offers interface appropriately configured for the specific user device in use.

[0038] The illustrated ingest module 20 may be configured to receive data about new offers (e.g., offers that are potentially not presently stored in the data store 24), such as data feeds from the affiliate network servers 44 and 46, identifications of offers from user devices 28, 30, or 32, offers identified by third-party offer server 34, offers identified by merchant servers 38, 40, or 42, or offers entered by an administrator via the administrator device 36. In some embodiments, the ingest module 20 may respond to receipt of a record identifying a potentially new offer by querying the data store 24 to determine whether the offer is presently stored. Upon determining that the offer is not presently stored by the data store 24, the ingest module 20 may transmit a request to the data store 24 to store the record. In some cases, the data about new offers may be an affiliate data-feed from an affiliate network containing a plurality of offer records (e.g., more than 100), each record identifying offer terms, a merchant, a URL of the merchant associated with the offer, a product description, and an offer identifier. The ingest module 22 may periodically query such data-feeds from the affiliate-network servers 44 or 46, parse the data-feeds, and iterate through (or map each entry to one of a plurality of processes operating in parallel) the records in the data-feeds. Bulk, automated processing of such data-feeds is expected to lower operating costs of the offers engine 12.

[0039] The administration module 22 may provide an interface by which an administrator operating the administrator device 36 curates and contextualizes offers. For example, the administration module 22 may receive instructions from administrator that identify offers to be presented in the offer interface prior to user interaction with the offer interface, or offers to be presented in this initialized offers interface for certain categories of users, such as users having certain attributes within their user profile. Further, in some embodiments, the administration

module 22 may receive data descriptive of offers from the administrator, such as URLs of images relevant to the offer, categorizations of the offer, normalized data about the offer, and the like.

[0040] The illustrated data store 24, in some embodiments, stores data about offers and user interactions with those offers. The data store 24 may include various types of data stores, including relational or non-relational databases, document collections, hierarchical key-value pairs, or memory images, for example. In this embodiment, the data store 24 includes a user data store 56, a session data store 58, an offers data store 60, and an analytics data store 62. These data stores 56, 58, 60, and 62 may be stored in a single database, document, or the like, or may be stored in separate data structures.

[0041] In this embodiment, the illustrated user data store 56 includes a plurality of records, each record being a user profile and having a user identifier, a list of offers (e.g., identifiers of offers) identified by the user as favorites, a list of categories of offers identified by the user as favorites, a list of merchants identified by the user as favorites, account information for interfacing with other services to which the user subscribes (e.g., a plurality of access records, each record including an identifier of a service, a URL of the service, a user identifier for the service, an OAuth access token credential issued by the service at the user's request, and an expiration time of the credential), a user password for the offers engine 12, a location of the user device or the user (e.g., a zip code of the user), and a gender of the user. In some embodiments, each user profile includes a list of other users identified by the user of the user profile as being people in whose commentary on, or curation of, offers the user is interested, thereby forming an offers-interest graph. In some embodiments, users have control of their data, including what is stored and who can view the data, and can choose to opt-in to the collection and storage of such user data to improve their experience with the offers engine 12.

[0042] In this embodiment, the session data store 58 stores a plurality of session records, each record including information about a session a given user is having or has had with the offers engine 12. The session records may specify a session identifier, a user identifier, and state data about the session, including which requests have been received from the user and what data has been transmitted to the user. Session records may also indicate the IP address of the user device,

timestamps of exchanges with the user device, and a location of the user device (e.g., retail store or aisle in a retail store in which the user device is located).

[0043] The illustrated offers data store 60, in some embodiments, includes a plurality of offer records, each offer record may identify a merchant, offers by that merchant, and attributes of the relationship with the merchant, e.g., whether there is a direct relationship with the merchant by which the merchant directly compensates the operator of the offers engine 12 or whether the merchant compensates the operator of the offers engine 12 via an affiliate network and which affiliate network. The offers by each merchant may be stored in a plurality of merchant-offer records, each merchant-offer record may specify applicable terms and conditions of the offer, e.g., whether the offer is a discount, includes free or discounted shipping, requires purchase of a certain number of items, is a rebate, or is a coupon (which is not to suggest that these designations are mutually exclusive). In records in which the offer is a coupon, the record may further indicate whether the coupon is for in-store use (e.g. whether the coupon is associated with a printable image for presentation at a point-of-sale terminal, a mobile device-displayable image, or other mediums) or whether the coupon is for online use and has a coupon code, in which case the coupon code is also part of the merchant-offer record. The merchant-offer records may also include an expiration date of the offer, comments on the offer, rankings of the offer by users, a time at which the offer was first issued or entered into the offers engine 12, and values (e.g., binary values) indicating whether users found the offer to be effective, with each value or ranking being associated with a timestamp, in some embodiments. The values and rankings may be used to calculate statistics indicative of the desirability of the offer and likely success of accepting the offer. The timestamps associated with the values, rankings, and time of issuance or entry into the offers engine 12 may also be used to weight rankings of the offer, with older values being assigned less weight than newer values and older offers being ranked lower than newer offers, all other things being equal, as many offers expire or have a limited number of uses.

[0044] The illustrated analytics data store 62 may store a plurality of records about historical interactions with the offers engine 12, such as aggregate statistics about the performance of various offers. In some embodiments, the analytics data store 62 stores a plurality of transaction records, each transaction record identifying an offer that was accepted by a user at a merchant,

the merchant, the time of presentation of the offer to the user, and an indicator of whether the merchant has compensated the entity operating the offers engine 12 for presentation of the offer to the user. Storing and auditing these transaction records is expected to facilitate relatively accurate collection of payments owed by merchants and identification of future offers likely to lead to a relatively high rates of compensation for prominent presentation based on past performance of offers having similar attributes.

[0045] The cache server 23 stores a subset of the data in the data store 24 that is among the more likely data to be accessed in the near future. To facilitate relatively fast access, the cache server 23 may store cached data in relatively high speed memory, such as random access memory or a solid-state drive. The cached data may include offers entered into the offers engine 12 within a threshold period of time, such as offers that are newer than one day. In another example, the cache data may include offers that are accessed with greater than a threshold frequency, such as offers that are accessed more than once a day, or offers accessed within the threshold, such as offers accessed within the previous day. Caching such offer data is expected to facilitate faster access to offer data than systems that do not cache offer data.

[0046] The illustrated control module 14, in some embodiments, controls the operation of the other components of the offers engine 12, receiving requests for data or requests to add or modify data from the API server 16, the web server 18, the ingest module 20, and the administration module 22, and instructing the data store 24 to modify, retrieve, or add data in accordance with the request. The control module 14 may further instruct the cache server 23 to modify data mirrored in the cache server 23. In some embodiments, the cache server 23 may be updated hourly, and inconsistent data may potentially be maintained in the cache server 23 in order to conserve computing resources.

[0047] The illustrated components of the offers engine 12 are depicted as discrete functional blocks, but embodiments are not limited to systems in which the functionality described herein is organized as illustrated by Figure 1. The functionality provided by each of the components of the offers engine 12 may be provided by software or hardware modules that are differently organized than is presently depicted, for example such software or hardware may be intermingled, broken up, distributed (e.g. within a data center or geographically), or otherwise differently organized.

The functionality described herein may be provided by one or more processors of one or more computers executing code stored on a tangible, non-transitory, machine readable medium.

[0048] Figure 2 is a flowchart of a process 64 for acquiring data related to offers within some embodiments of the offer engine 12 discussed above. In this embodiment, the process 64 begins with receiving offer data describing a plurality of offers from affiliate networks, merchants, and users, as illustrated by block 66. This step may be performed by the above-mentioned ingest module 20. As noted above, the received offer data may be received from one or all of these sources. The received offer data may be received via an offer interface by which users associated with these sources enter data about offers, or the received offer data may be received in a predefined format, such as a serialized data format, in an automatic data feed pushed or pulled periodically or in response to the availability of new data from affiliate networks or merchants. Receiving the offer data may include determining whether the offer data is redundant to offer data already received and normalizing the offer data.

[0049] The process 64, in some embodiments, includes normalizing and enriching the offer data. Normalizing may include normalizing field names of the data and normalizing the way in which dates are expressed, for example. Enriching may include associating images with the offers for presentation with the offers and adding metadata to the offers to assist users searching for offers.

[0050] Next, in the present embodiment, the received offer data is stored in an offer data store, as indicated by block 68. Storing the offer data in the offer data store may include identifying a merchant to which the offer pertains and storing the offer in a merchant-offer record associated with that merchant. Further, some embodiments may include inserting the offer in order in a sorted list of offers for relatively fast retrieval of offers using a binary search algorithm or other techniques to facilitate relatively quick access to data that has been preprocessed (e.g., using a prefix trie). In some embodiments, storing the received offer may further include updating hash tables by which the offer may be retrieved according to various parameters, each hash table being associated with one parameter and including a hash key value calculated based on the parameter and paired with an address of the offer. Such hash tables are expected to facilitate relatively fast access to a given offer as the need to iterate through potentially all offers meeting certain criteria may be potentially avoided.

[0051] In some embodiments, the process 64 further includes receiving a request from a user device for offers, as indicated by block 70. The request may specify criteria for identifying offers, such as categories of offers, search terms for offers, or requests for offers designated as favorites.

[0052] Next, the present embodiment includes identifying offers in the offer data store responsive to the user request, as indicated by block 72. Identifying offers in the offer data store may be performed by the above-mentioned controller 14 (Figure 1) by constructing a query to the offer data store 60 based on a request received from the web server 18 or the API server 16. The query may be transmitted to the offer data store 60, or to the cache server 23, each of which may return responsive records.

[0053] Next, the identified offers are transmitted to the user device, as indicated by block 74. Transmitting the identified offers may include transmitting the identified offers in an offer interface, such as a webpage, or an API transmission to a native mobile application, for example by the web server 18, or the API server 16 of Figure 1, respectively.

[0054] The device receiving the identified offers may, in response, perform a process described below with reference to Figure 3 by which additional offers are requested or an offer is selected and a purchase is executed. This process of Figure 3 and steps 70 through 74 of Figure 2 may be repeated numerous times, in some use cases, before advancing to the next steps. Further, the steps 66 through 68 may be repeated numerous times independently of (e.g., concurrent with) the performance of steps 70 through 74 of Figure 2 (which is not to suggest that other steps described herein may not also be executed independently). That is, the process 64 may undergo step 66 through 68, for example, 50 times within a given time, while performing steps 70 through 74 500 times within that given time, and performing the remaining steps of process 64 a single time.

[0055] In some embodiments, a user device undergoing the process of Figure 3 may indicate to an offers engine that the user has selected an offer (e.g., by clicking on or touching a selectable element in an offers interface associated with the offer). In response, the offers engine may direct the user device to an affiliate-network server or a merchant server associated with the offer, as illustrated by block 75.

[0056] Next, this embodiment of the process 64 includes receiving from merchants or affiliate networks transaction data identifying offers accepted via the user device, as illustrated by block 76. The transaction data may be pulled from these sources, for example, by the ingest module 20 of Figure 1, periodically, or in response to some threshold number of transactions having occurred.

[0057] Next, in this embodiment, the receipt transaction data may be stored in an analytics data store, as indicated by block 78. In some embodiments, this data may be stored in the analytics data store 62 of Figure 1. Storing the transaction data is expected to facilitate the identification of attributes of relatively profitable offers, as the transaction data indicates which offers historically yielded compensable transactions. Further, storing the transaction data is expected to facilitate relatively accurate auditing of payments from merchants or affiliate networks.

[0058] Figure 3 is a flowchart of an embodiment of a process 80 that provides an example of an offer interface at a user device. The process 80 may be performed by the above-mentioned native application 52 or web browser 50 or 54 in cooperation with the offers engine 12.

[0059] Some embodiments of process 80 begin with receiving, at a user device, instructions that cause the user device to display an offers interface, as indicated by block 82. The received instructions may be in the form of a downloaded native application, such as one downloaded from an application store hosted by a provider of mobile devices, or the received instructions may be in the form of a website received from the offers engine 12 and rendered in a browser of the user device.

[0060] In some embodiments, the process 80 further includes receiving, at the user device, a plurality of offers, as indicated by block 84, and displaying, at the user device, the offers in the offer interface, as indicated by block 86. The offers may be received at approximately the same time the instructions of step 82 are received, for example along with a webpage, or the offers may be received at a later date, for example during a session subsequent to downloading the native application.

[0061] The offers interface may include inputs by which the user may search, filter, or otherwise browse offers having various attributes. Some of these interfaces are described below with

reference to steps performed to determine whether the user has engaged these inputs. In some embodiments, determining whether the user has engaged these inputs may be performed by an event handler executed by the user device, the event handler causing the user device to perform the corresponding, below-described requests to the offers engine 12 based on the type of event, e.g., whether the user touched, clicked, or otherwise selected a particular button on the offers interface.

[0062] Illustrated process 80 includes determining whether the user is searching for offers, as indicated by block 88. With the offers interface, the user may express their intention to search for offers by entering search terms in a text entry box and selecting a button to request a search in accordance with the entered search term. Upon selecting this button, the user device may transmit a request for offers satisfying the entered search criteria, as indicated by block 90. The transmitted request may be in the form of a GET request or an API call to the web server 18 or the API server 16 of the offers engine 12 of Figure 1.

[0063] In some embodiments, the process 80 further includes determining whether the user requests offers within a collection of offers, as indicated by block 92. The offers interface may include selectable inputs that identify the collections, such as clickable collection names, collection selection buttons, or collection selection tabs. Examples of collections include categories of goods or services, such as sporting goods, house-wares, groceries, and the like; collections of modes of coupon redemption, such as in-store coupon redemption and online coupon redemption; collections based on offer statistics, such as newest offers, most popular offers, highest ranked offers; collections of offers designated by a user or other users; or collections based the value conferred by the offer, such as discounts, free shipping, rebates, and referral fees. Upon determining that the user has requested offers within a collection, the user device may transmit a request for offers within the collection to the offers engine 12, as indicated by block 94, which may return data responsive to the request.

[0064] In some embodiments, the process 80 includes determining whether the user requests offers previously designated by the user, as indicated by block 96. In some embodiments, the offers interface may include an input by which a user can designate an offer, such as designating offers as being a user favorite, designating offers as being ranked in a particular fashion, or

designating offers as likely being of interest to some other user, such as users adjacent one another in a social graph. The offers interface may include an input for a user to make designations, such as a user selectable input labeled “add to my favorites,” or “add to my wallet,” and an input for a user to request offers having a designation, such as a user selectable input labeled “view my favorites.” or “view my wallet.” Upon determining that the user made such a request, the process 80 includes transmitting a request for the offers previously designated by the user, as indicated by block 88. The transmission may be made to the offers engine 12, to the API server 16 or the web server 18, as described above with reference to Figure 1, and may include an identification of the designation and the user.

[0065] The process 80, in some embodiments, further includes determining whether the user requests offers previously designated by another user, as indicated by block 100. The offers interface, in some embodiments, may include an input by which a user makes such a request, such as a user selectable input labeled “offers recommended by my friends.” Upon determining that the user has made such a request, the process 80 transmits a request for offers previously designated by the other user (or users), as indicated by block 102. Again, the transmission may be to the offers engine 12 of Figure 1, which may store or otherwise have access to offers designated by other users and a social graph of the user by which responsive offers are identified. Further, the offers interface may include an input by which the user may view identifiers of other users and add the other users to an offer-interest graph of the user. This offer interest graph may be referenced by the offers engine 12 to identify offers in response to the request of step 102.

[0066] The process 80 further includes, in some embodiments, receiving, at the user device, one or more offers responsive to the request, as indicated by block 104, and displaying the responsive offers on the offers interface, as indicated by block 106.

[0067] In some embodiments and some use cases, a selection from the user is received via the offers interface, thereby identifying an offer among the displayed offers, as indicated by block 108. In some embodiments, each of the offers may be displayed with an associated input by which the user selects the offer, such as a touchable or clickable button, region, or text. The selection, in some embodiments, may cause the offers interface to request additional data from the offers engine, such as instructions from the offers engine to navigate to an affiliate-network

server associated with the offer or to navigate to a merchant server associated with the offer. In other embodiments, such instructions may be present within the offers interface, e.g., in the form of URLs linking to these servers.

[0068] The process 80 further includes determining whether the selected offer is compensable through an affiliate network, as indicated by block 110. This determination may be made by the offers engine 12, in some embodiments, for each of the offers being displayed prior to transmission of the offers to the user device. For example, each offer may be associated with a designation indicating whether the offer is compensable in this fashion, and the designation may be transmitted along with the offer, for instance, by associating the offer with HTML or JavaScriptTM that so designate the offer, or by including a field including the designation in a response to an API call for each offer. The user device, in some embodiments, may take different actions depending on the designation associated with the selected offer.

[0069] Upon determining that the selected offer is not compensable through an affiliate network, the process 80 of this embodiment includes determining whether the selected offer is compensable directly from the merchant associated with the offer, as indicated by block 112. Again, the determination of block 112 may be performed, in some embodiments, by the offers engine 12 for each of the offers being displayed prior to transmission of the displayed offers, and each displayed offer may be associated with a designation based on the results of the determination, such as different HTML or JavaScriptTM or a different field value in an API response. The user device may take different actions depending on this designation.

[0070] Upon determining that the selected offer is not compensable directly from the merchant, the process 80 may proceed to block 118 described below. Upon determining that the selected offer is compensable, the process 80, in this embodiment, may proceed to request the website of the merchant issuing the selected offer with a request that identifies the affiliate from whom the selected offer was obtained, as indicated by block 114. The request may be in the form of a URL having as a parameter an identifier of the entity operating the offer engine 12, thereby indicating to the merchant that the affiliate should be compensated in accordance with an arrangement between the merchant and the affiliate. Upon performance of step 114, the process 80 of the present embodiment proceeds to step 120 described below.

[0071] As indicated by block 110, upon determining that the selected offer is compensable through an affiliate network, the process 80 proceeds to transmit a request to the affiliate-network server for instructions to store data identifying an affiliate from whom the selected offer was obtained, as indicated by block 116. This request may be a request for content from the affiliate-network server that is not displayed to the user, or is not displayed to the user for an appreciable amount of time (e.g., less than 500 ms), and the request may include an identifier of the affiliate, the merchant, and the offer. The requested content may cause the user device to store in persistent memory of the browser of the user device (e.g., memory that lasts between sessions, such as a cookie or a database of the browser) an identifier of the affiliate operating the offers engine 12. This value may be retrieved later by the affiliate-network at the instruction of the merchant upon the user accepting the offer, for example by the user using a coupon code associated with the offer at the merchant, thereby allowing the merchant (or the affiliate network) to identify the appropriate party to compensate for the sale.

[0072] Upon transmitting the request to the affiliate network server, the process 80 further includes requesting the website of the merchant issuing the selected offer, as indicated by block 118, and transmitting acceptance of the offer to the merchant via the merchant's website, as indicated by block 120. Accepting the offer, as noted above, may cause the merchant to compensate the affiliate operating the offers engine 12.

[0073] The process 80 of Figure 3 is expected to facilitate relatively fast access to offers that are likely to be relevant to a user, as each of the determinations of step 88, 92, 96, and 100 provide different paths by which the user can specify offers in which the user is likely to be interested. Further, the determinations of step 110 and 112 provide dual mechanisms by which the operator of the offers engine 12 can be compensated, thereby potentially increasing revenue.

[0074] In some embodiments, the offers engine 12 may provide offers to a user in response to a user's traversal of a geofence as described, for example, in U.S. Patent Application 13/928,833 entitled "Determining Offers for a Geofenced Geographic Area," a copy of which is herein incorporated by reference. As used herein, the term "geofence" refers to a virtual perimeter for a real-world geographic area. As described further below, when a user crosses a geofence, offers relevant to a location or activity within the geographic area of the geofenced perimeter are

provided to the user via a user device. The geographic area may include, for example, an indoor shopping mall, an outdoor shopping mall, a shopping district, an airport, or any other suitable geographic area having merchant facilities. As described below, in some embodiments the geographic area may include an event venue such as a stadium, arena, hall, theater, convention center, hotel, or other suitable venue.

[0075] The offers engine 12 may store defined geofences (e.g., polygons, center points and radii, etc.) for providing to user devices. Each geofence may be assigned a unique geofence identifier. Additionally, the offers engine 12 may store additional data associated with a geofence. In some embodiments, the additional data may include a list of merchants associated with the geofence. For example, if the geofence corresponds to real-world shopping mall, the list of merchants associated with the geofence may correspond to some or all of the stores in the shopping mall. In some embodiments, the obtained geofences and geofence identifiers may be stored (e.g., cached) on the user device. In some embodiments, only the geofence, geofence identifiers may be stored on the user device, such that the additional data associated with a geofence is not stored on the user device, thus minimizing memory usage of the cached geofences.

[0076] Figure 4 depicts a process 400 for creating an event-based offer in accordance with an embodiment of the present invention. Some or all steps of the process 400 may be implemented as executable computer code stored on a non-transitory tangible computer-readable storage medium and executed by one or more processors of a special-purpose machine, e.g., a computer programmed to execute the code. For example, in some embodiments the process 400 may be implemented via the offer-discovery system 10. In other embodiments, the process 400 may be implemented using other types of systems, such as a system implemented by both publishers and affiliates, as further described in U.S. Provisional Patent Application 61/882,130 entitled “Tracking Offers Across Multiple Channels,” a copy of which is herein incorporated by reference.

[0077] Initially, a request for an event-based offer may be obtained from a merchant (block 402). In some embodiments, a user interface may be provided by the offers engine 12 so that a merchant may submit requests for offers and offer details. In such embodiments, a user interface may enable a merchant to identify an event venue for an event-based offer, identify an event

occurring at an event venue, and define event criteria as described below. Next, the event venue for the event is identified (block 404). The event venue may include any venue suitable for the types of events described herein. For example, the event venue may include a stadium, arena, hall, theater, convention center, hotel, park, track, or other suitable venue. In some embodiments, events may include concerts, sporting events, conferences, tradeshow, lectures, festivals, and other suitable events.

[0078] Next, previously defined geofences may be evaluated to determine if a geofence exists for the event venue (block 406). As used herein, the term “geofence” refers to a virtual perimeter for a real-world geographic area. In some embodiments, the offer-discovery system 10 may include a database or other data repository of previously defined geofences and corresponding real-world location data. For example, possible event venues may each be identified via an identifier (e.g., geographic coordinates), and geofences may be defined for each possible event venue.

[0079] If an event venue geofence does not exist (line 408), a geofence for the event venue is created (410). As noted above, the geofence may be created by defining a virtual perimeter around an event venue. In some embodiments, the geofence may encompass areas outside of the event venue itself that are likely to host users, such as a parking lot, a nearby location with multiple restaurants, bars, or hotels, a shopping mall, a university, or other areas. If the event venue geofence exists (line 412), the geofence for the event venue is identified (block 414). For example, a geofence may be associated with a geofence identifier that is used by the offer-discovery system 10 to identify a particular geofence. It should be appreciated that in some embodiments a geofence may be temporarily created for a specific event, such as a festival or other event occurring in a public park or other event venue. In some embodiments, more than one geofence may be created for an event venue. For example, a separate geofence may be created for separated entrances or exits of an event venue.

[0080] Next, the offer data may be obtained from the merchant (block 416). Such offer data may include an offer title; a start date of the offer indicating the date or time upon which the offer becomes valid for redemption; an expiration date indicating the date or time upon which the offer ceases to be valid and can no longer be redeemed, an offer description, an offer type,

and so on. In some embodiments, the offer data may include a plurality of single-use offer codes, such that each code provides for a single unique redemption of the offer. Additionally, offer event criteria may be obtained from the merchant (block 418). The offer event criteria may determine what criteria should be met to provide an offer to users. For example, in some embodiments offer event criteria may include, for example, a time limit, a trigger based on event data, or event attendance. It should be appreciated that other embodiments may include additional event criteria used to determine when an offer is to be provided to users. In some embodiments the event criteria may include the start of an event, the end of an event, the duration of an event, the outcome of an event (e.g., whether a team wins), statistics of an event (e.g., number of points scored by a team), and attendance at an event. In some embodiments, event-based offers generated using the event criteria described above, may include a time-limited offer 420, a trigger-based offer 422, and a post-event exclusive offer 424, or any combination thereof. Moreover, as noted above, in some embodiments, the event-based offers may be single-use offers limited to a single redemption per use of the offer. In some embodiments, event-based offers may include a sweepstakes offer that enables a user to enter a sweepstakes (or other contest) for a chance to win a prize, either during an event or after an event.

[0081] Figure 5 depicts a process 500 for providing event-based offers to users in accordance with an embodiment of the present invention. Some or all steps of the process 500 may be implemented as executable computer code stored on a non-transitory tangible computer-readable storage medium and executed by one or more processors of a special-purpose machine, e.g., a computer programmed to execute the code. For example, in some embodiments steps of the process 500 may be executed by the components of the offer-discovery system 10. Moreover, in some embodiments, steps of the process 500 may be distributed among, for example, entities of the offer-discovery system 10 or other systems.

[0082] Initially, the traversal of an event geofence by user devices may be detected (block 502). In some embodiments, a mobile user device may store local geofences and detect when the mobile user device enters a geofenced area. For example, a mobile user device may obtain location data via communication with a satellite-based positioning system (e.g., GPS) or other suitable locating techniques, such as Wi-Fi based locating, IP address geolocation, or other techniques. Local geofences may be obtained, such as from an offers engine 12, and stored on

the mobile user device. After a user carrying a mobile user device crosses a geofence, a mobile user device may detect traversal of the geofence and transmit a geofence identifier to the offers engine 12. In some embodiments, the mobile user device may include a program (e.g., a native service or application) that monitors the location of the mobile user device and determines traversal of a geofence. In some embodiments, a program of the mobile user device may monitor the geofences stored (e.g., cached) on the mobile user device and detect traversal of a stored geofence.

[0083] Additionally, in some embodiments, the addition of user devices already located in the event geofence may be detected (block 504). In some embodiments, a mobile user in an event geofence may install a program (e.g., a native service or application) that enables identification of geofences and notification that the mobile user device is located in a geofence. For example, after a mobile user device traverses an event geofence, the mobile user may subsequently install such a program that identifies the event geofence and transmits a notification to an offers platform to indicate that the device is located within the geofence or otherwise at the event venue. In this manner, mobile user devices within the event geofence may be identified (block 506).

[0084] In some embodiments, as mentioned above, an affiliate who will provide offers to users or a merchant may desire to send a pre-tease alert (decision block 508). In some embodiments, a merchant may request a pre-tease alert when sending a request for an event-based offer and offer details, such as through a user interface. The pre-tease alert may include a notification to users of an upcoming event-based offer. In some embodiments, a pre-tease alert may include a prompt to users to tell their friends about an upcoming event-based offer and, in some embodiments, instructions describing how to install a program so that other mobile user devices may receive an event-based offer. In some embodiments, a pre-tease alert request may include identification of when the pre-tease alert is to be provided. For example, in some embodiments pre-tease alert criteria similar to the event criteria discussed above may be defined and used to determine when a pre-tease alert is provided. In some embodiments, the pre-tease alert may be sent after a period of time after the start of an event, e.g., 5 minutes, 10 minutes, 15 minutes, 20 minutes, or greater after the start of an event. If a pre-tease alert is requested (line

510), the alert is sent (e.g., “pushed”) to the mobile user devices in the event venue geofence (block 512). If a pre-tease alert is not requested, no alert is sent (line 514).

[0085] Next, event data may be obtained (block 516). Event data may include data about an event occurring at an event venue. For example, in some embodiments event data may include whether an event has started, the start time of an event, the end time of an event, the duration of an event, a specific interval or time of an event (e.g., half-time, intermission, overtime, encore), the outcome of an event (e.g., whether a team wins), statistics of an event (e.g., number of points scored by a team), an occurrence during an event (e.g., a touchdown, a three-pointer, a popular song is played, a band plays encore) or other event data. In some embodiments, event data may be obtained from a service or entity that provides event data. For example, statistics of a sporting event may be obtained from a sports news service or entity that makes such information available.

[0086] The event data is evaluated against the event criteria (block 518) to determine if the event criteria are met (decision block 520). For example, if the event criteria are a home team of a sporting event venue winning a game, the outcome of the sporting event may be evaluated against these criteria. If the home team won the sporting event, the event criteria are met. In another example, the event criteria may include a specific time period after the start of an event. In such instances, if the event data includes a duration of the event, the event criteria may be met after the duration meets or exceeds the specific time period. If the event criteria are not met (line 522), the event data may continue to be monitored (block 524). If the event criteria are met (line 526), then the event-based offer is provided (e.g., “pushed”) to user devices (block 528) for viewing and redemption by users attending the event. For example, in some embodiments offer content is sent to the mobile user devices over a network, and the mobile user devices may receive the offer content and display the offer content for viewing by users. In some embodiments, event-based offers (and pre-tease alerts or other notifications) may be provided to mobile user devices in waves, such that a first group of mobile user devices receives the event-based offer at a first time, a second group of mobile user devices receives the event-based offer at a second time (e.g., some time period after the first time), a third group of mobile user devices receives the event-based offer at a third time (e.g., some time period after the second time), and so on. In some embodiments, mobile user devices may be grouped using geofences (or other

location indicators) within an event geofence, and event-based offers (and pre-tease alerts or other notifications) may be provided sequentially to groups of mobile user device based on the group locations.

[0087] As described above, in some embodiments offers may be redeemed off-line (e.g., a point-of-sale system at a merchant), on-line (e.g., on a merchant's website), or both. For example, in some embodiments an event-based offer may be redeemed at a concessionaire at an event venue by showing an offer code to the concessionaire. In some embodiments, a follow-up notification may be sent to the user devices after the event ends. For example, in such embodiments a follow-up notification may be sent to mobile user devices indicating that an event-based offer will expire soon and providing redemption instructions or additional offer content to the users.

[0088] Figures 6A-6C depict mobile user devices 600 of users 602 interacting with a geofence 604 that encloses an event venue 606 in accordance with an embodiment of the present invention. The users 602 may be, for example, attendees attending an event occurring at the event venue 606, such as attendees of a concert, a sporting event, a conference, a tradeshow, and the like. In some embodiments, the mobile user devices 600 may obtain geofences within a specific proximity of a location and store (e.g., cache) obtained local geofence data. For example, each mobile user device 600 may store an identifier for the geofence 604 and, in some embodiments, other data describing the geofence 604. Next, as shown in Figures 6A and 6B, the user 602 and mobile user devices 600 may traverse the geofence 604 (as indicated by movement arrows 608). As noted above, the traversal of the geofence 604 may be detected by the mobile user devices 600. The mobile user devices 600 may be identified as mobile user devices located within the geofence 604 and, consequently, attending the event occurring at the event venue 606.

[0089] As shown in Figure 6B, the mobile user devices 600 may be located within the geofence 604 and at the event venue 606. As also shown in Figure 6B, an event 610 may begin at the event venue 606. Each mobile user device 600 may thus be available for event-based offers related to the event 610 and created and provided according to the techniques described herein. It should be appreciated that not all mobile user devices may have the capability to identify traversal of the geofence 604. For example, mobile user device 600D may not include a program

that detects traversal of the geofence 604 and identifies the mobile user device 600D as available for event-based offers.

[0090] Figure 6C depicts screens 612 of mobile user devices 600A, 600B, and 600C, such as, for example, a home screen of a user interface. As will be appreciated, the screens 612 and other screens described below may be presented in a user interface of the mobile user device that may receive inputs from a user and provide outputs on a display. In some embodiments, the user interface may include a touchscreen, software modules, or any combination thereof. In such embodiments, inputs may be received as touches on the touchscreen, such as from a digit of a user, a stylus, etc. The screens 612 may include various user interface elements to display information to a user, and in some instances, receive user input. The screens 612 depict notification areas 614 that display notifications such as received text messages, received emails, application notifications, and so on. As will be appreciated, however, the notifications described herein may be displayed in other screens of the user interface, in other areas or components of the user interface (e.g., a pop-up notification) and may be displayed independent of any particular screen or application executed by the mobile user device 600. The notification areas 614 may each display other information, such as status icons (e.g., battery life, network signal strength), date, time, and so on. As will be appreciated, the screens 612 also depicts user-selectable icons 616 that initiate execution of various programs (e.g., application) of the mobile user devices 600.

[0091] As shown in Figure 6C and as mentioned above, a notification 616 for event-based offers may be provided to mobile user devices 600 based on event criteria related to the event 610. As shown in Figure 6C, each mobile user device 600A, 600B, and 600C may receive and display a notification 616 for an event-based offer. As mentioned above, in some instances mobile user devices such as mobile user device 600D without the capability of receiving event-based offers may not receive and display the notification 616. The notification 616 may include instructions to view an event-based offer and may include offer details (such as the merchant associated with the offer, discount associated with the offer, and so on). A user may thus view the event based offer indicated by the notification 616 by selecting the notification 616 in the notification area 614. Although not shown in FIG. 6C, the mobile user devices 600A, 600B, and

600C may also receive and display a notification 616 for an event-based offer upon or after traversing outside of the geofence 604.

[0092] As shown in Figure 6D, after selection of the notification 616, each mobile user device 600A, 600B, and 600C may display a screen 618 showing the event-based offer 620 received from an offers platform. The event-based offer 618 may include offer content, such as redemption instructions and an offer code to enable redemption. In some embodiments, the event-based offer 618 may be redeemable at the event venue 606, such as at a concessionaire or other merchant at the event venue 606. In some embodiments, as described below, the event-based offer 618 may be redeemable after the event 610, such as at a merchant located at a different location than the event venue 606.

[0093] As noted above, mobile-user device 600D may not have the capability of receiving the event-based offer and may not enable the user 602D to view the offer. However, as explained above, in some embodiments the mobile user device 600D may download, install, and use a program after entering the event venue 606 so that the mobile user device 600D is subsequently able to receive event-based offers. As also shown in Figure 6D, an event 610 may begin at the event venue 606. For example, the event may include a concert, a sporting event, a lecture, or other event and, as described above, event data about the event 610 may be used in the distribution of event-based offers.

[0094] Figures 7A-7C depict examples of event-based offers in accordance with embodiments of the present invention. Figure 7A depicts a screen 700 of a mobile user device illustrating a time-limited event-based offer 702 in accordance with an embodiment of the invention. For example, the screen 700 may be displayed after a user selects the offers notification described above. In some embodiments, the screen 700 may be a screen of a native application (e.g., native application 52) of a mobile user device.

[0095] The screen 700 may include various user interface elements to display information to a user, and in some instances, receive user input. For example, the screen 700 may include a header portion 704 an offer title 706, an offer display area 708, and a navigation bar 710. As shown in Figure 7B, the header portion 704 may be located at the top portion of the screen 700 (e.g., above the title 706 and the offer display area 708). Similarly, in some embodiments the

navigation bar 710 may be displayed below the offer display area 708. In other embodiments, the information in the header portion 704 may be displayed in other areas, such as a footer portion, and the navigation bar 710 may be located in other areas of the application, such as a header portion. The offers display area 708 may present the event-based offer 702 for viewing and selection by a user.

[0096] The header portion 704 may display a text indicating the contents of the screen 700 presented to the user. For example, the header portion 704 includes the text “Event venue” to indicate to a user that an offer related to an event venue is currently being presented. The offer title 706 may include a title (“Offer title”) of an offer displayed in the offer display area 708. The navigation bar 710 may include navigation controls, e.g., buttons 712, such as a “Home” button 712A and a “Profile” button 712B. For example, by selecting the “Home” button 712A, a user may return to a home screen of a native application. Similarly, the selection of the “Profile” button 712B enables a user to access a user profile, such as a user profile associated with the native application.

[0097] The event-based offer 702 may be presented with information describing the offer 702 and, in some embodiments, redemption instructions. For example, in some embodiments the event-based offer 702 may include an offer graphic 714, offer text 716, and an offer code 718. The offer graphic 714 may include a text, image (e.g., a merchant logo, a publisher logo, etc.), or combination thereof identifying an entity associated with the offer. The offer text 716 may include information about the offer, such as the goods, services, or both associated with the offer, the discount or other offer provided by the coupon, the expiration date, or any other suitable information or combination thereof. In some embodiments, the offer 702 includes an offer code 718, such as a bar code. In some embodiments, the offer code 718 may enable the user to redeem the offer, such as via a point of sale device.

[0098] Figure 7B depicts another screen 720 of a mobile user device illustrating another event-based offer, e.g., trigger-based offer 722, in accordance with an embodiment of the invention. As described above, the trigger-based offer 722 may be provided when event criteria are met. For example, the trigger-based offer 722 may be provided after the result of a sporting event, such as when a home team of the event venue wins a game.

[0099] The trigger-based offer 722 may also be presented with information describing the offer 722 and, in some embodiments, redemption instructions. The trigger-based offer 722 may include an offer graphic 724, offer text 726, a save button 728, and a “Use Coupon” button 730. As noted above, the offer graphic 724 may include a text, image (e.g., a merchant logo (“Merchant2 Logo”), a publisher logo, etc.), or combination thereof identifying an entity associated with the offer. The offer text 726 may include information about the offer, such as the goods, services, or both associated with the offer, the discount or other offer provided by the coupon, the expiration date, or any other suitable information or combination thereof. For example, the offer-based text 726 for the trigger-based offer 722 may include text indicating that certain event criteria were reached and the resulting discount (e.g., “Cowboys Won! Receive free appetizer at Restaurant”).

[00100] The save button 728 enables a user to save the offer 722 for later use. To use the offer 722, a user may select (e.g., touch) the “Use Coupon” button 728. For example, after selecting the “Use Coupon” button 728, an offer code may be displayed to enable a user to redeem the offer 722, such as at a point-of-sale device or via a merchant’s website.

[00101] Figure 7C depicts another screen 732 of a mobile user device illustrating another event-based offer, e.g., a post-event exclusive event-based offer 734, in accordance with an embodiment of the invention. As described above, the post-event exclusive event-based 732 may be provided when event criteria are met, such as when users attend an event. For example, the post-event exclusive event-based offer 734 may be provided during an event but made available for redemption after the event.

[00102] Here again, the post-event exclusive event-based offer 734 may be presented with information describing the offer 734 and, in some embodiments, redemption instructions. The trigger-based offer 734 may include an offer graphic 736, offer text 738, a save button 740, and a “Use Coupon” button 742. As mentioned above, the offer graphic 736 may include a text, image (e.g., a merchant logo (“Merchant3 Logo”), a publisher logo, etc.), or combination thereof identifying an entity associated with the offer. As also noted above, the offer text 736 may include information about the offer, such as the goods, services, or both associated with the offer, the discount or other offer provided by the coupon, the expiration date, or any other suitable

information or combination thereof. For example, the offer-based text 738 for the trigger-based offer 722 may include text indicating that certain event criteria were reached and the resulting discount and sponsoring merchant (e.g., “Thank you for attending! Please take 20% any purchase at Merchant3”). In some embodiments, the offer-based text 738 may also include an expiration date for the offer (e.g., “Exp. 2/10/2014”). As described above, the save button 740 enables a user to save the offer 734 for later use, and the “Use Coupon” button 742 may cause the display of an offer code to enable a user to redeem the offer 734. For example, as the offer 734 indicates that it may be used at a merchant not located at the event venue, a user may use the save button 740 to save the offer 734 for later use. When present at the merchant, a user may retrieve the saved offer 734 and use the “Use Coupon” button 742 to retrieve an offer code and enable redemption of the offer.

[001] Figure 8 is a diagram that illustrates an exemplary computing system 800 in accordance with embodiments of the present technique. Various portions of systems and methods described herein, may include or be executed on one or more computer systems similar to computing system 800. Further, processes and modules described herein may be executed by one or more processing systems similar to that of computing system 800.

[002] Computing system 800 may include one or more processors (e.g., processors 802a-802n) coupled to system memory 804, an input/output I/O device interface 808, and a network interface 810 via an input/output (I/O) interface 812. A processor may include a single processor or a plurality of processors (e.g., distributed processors). A processor may be any suitable processor capable of executing or otherwise performing instructions. A processor may include a central processing unit (CPU) that carries out program instructions to perform the arithmetical, logical, and input/output operations of computing system 800. A processor may execute code (e.g., processor firmware, a protocol stack, a database management system, an operating system, or a combination thereof) that creates an execution environment for program instructions. A processor may include a programmable processor. A processor may include general or special purpose microprocessors. A processor may receive instructions and data from a memory (e.g., system memory 804). Computing system 800 may be a uni-processor system including one processor (e.g., processor 802a), or a multi-processor system including any number of suitable processors (e.g., 802a-802n). Multiple processors may be employed to provide for parallel or

sequential execution of one or more portions of the techniques described herein. Processes, such as logic flows, described herein may be performed by one or more programmable processors executing one or more computer programs to perform functions by operating on input data and generating corresponding output. Processes described herein may be performed by, and apparatus can also be implemented as, special purpose logic circuitry, e.g., an FPGA (field programmable gate array) or an ASIC (application specific integrated circuit). Computing system 800 may include a plurality of computing devices (e.g., distributed computer systems) to implement various processing functions.

[003] I/O device interface 808 may provide an interface for connection of one or more I/O devices 814 to computer system 800. I/O devices may include devices that receive input (e.g., from a user) or output information (e.g., to a user). I/O devices 814 may include, for example, graphical user interface presented on displays (e.g., a cathode ray tube (CRT) or liquid crystal display (LCD) monitor), pointing devices (e.g., a computer mouse or trackball), keyboards, keypads, touchpads, scanning devices, voice recognition devices, gesture recognition devices, printers, audio speakers, microphones, cameras, or the like. I/O devices 814 may be connected to computer system 800 through a wired or wireless connection. I/O devices 814 may be connected to computer system 800 from a remote location. I/O devices 814 located on remote computer system, for example, may be connected to computer system 800 via a network and network interface 810.

[004] Network interface 810 may include a network adapter that provides for connection of computer system 800 to a network. Network interface may 810 may facilitate data exchange between computer system 800 and other devices connected to the network. Network interface 810 may support wired or wireless communication. The network may include an electronic communication network, such as the Internet, a local area network (LAN), a wide area network (WAN), a cellular communications network, or the like.

[005] System memory 804 may be configured to store program instructions 180 or data 820. Program instructions 818 may be executable by a processor (e.g., one or more of processors 802a-802n) to implement one or more embodiments of the present techniques. Instructions 818 may include modules of computer program instructions for implementing one or more

techniques described herein with regard to various processing modules. Program instructions may include a computer program (which in certain forms is known as a program, software, software application, script, or code). A computer program may be written in a programming language, including compiled or interpreted languages, or declarative or procedural languages. A computer program may include a unit suitable for use in a computing environment, including as a stand-alone program, a module, a component, or a subroutine. A computer program may or may not correspond to a file in a file system. A program may be stored in a portion of a file that holds other programs or data (e.g., one or more scripts stored in a markup language document), in a single file dedicated to the program in question, or in multiple coordinated files (e.g., files that store one or more modules, sub programs, or portions of code). A computer program may be deployed to be executed on one or more computer processors located locally at one site or distributed across multiple remote sites and interconnected by a communication network.

[006] System memory 804 may include a tangible program carrier having program instructions stored thereon. A tangible program carrier may include a non-transitory computer readable storage medium. A non-transitory computer readable storage medium may include a machine readable storage device, a machine readable storage substrate, a memory device, or any combination thereof. Non-transitory computer readable storage medium may include non-volatile memory (e.g., flash memory, ROM, PROM, EPROM, EEPROM memory), volatile memory (e.g., random access memory (RAM), static random access memory (SRAM), synchronous dynamic RAM (SDRAM)), bulk storage memory (e.g., CD-ROM and/or DVD-ROM, hard-drives), or the like. System memory 804 may include a non-transitory computer readable storage medium that may have program instructions stored thereon that are executable by a computer processor (e.g., one or more of processors 802a-802n) to cause the subject matter and the functional operations described herein. A memory (e.g., system memory 804) may include a single memory device and/or a plurality of memory devices (e.g., distributed memory devices).

[007] I/O interface 812 may be configured to coordinate I/O traffic between processors 802a-802n, system memory 804, network interface 810, I/O devices 814, and/or other peripheral devices. I/O interface 812 may perform protocol, timing, or other data transformations to convert data signals from one component (e.g., system memory 804) into a format suitable for use by

another component (e.g., processors 802a-802n). I/O interface 812 may include support for devices attached through various types of peripheral buses, such as a variant of the Peripheral Component Interconnect (PCI) bus standard or the Universal Serial Bus (USB) standard.

[008] Embodiments of the techniques described herein may be implemented using a single instance of computer system 800 or multiple computer systems 800 configured to host different portions or instances of embodiments. Multiple computer systems 800 may provide for parallel or sequential processing/execution of one or more portions of the techniques described herein.

[009] Those skilled in the art will appreciate that computer system 800 is merely illustrative and is not intended to limit the scope of the techniques described herein. Computer system 800 may include any combination of devices or software that may perform or otherwise provide for the performance of the techniques described herein. For example, computer system 800 may include or be a combination of a cloud-computing system, a data center, a server rack, a server, a virtual server, a desktop computer, a laptop computer, a tablet computer, a server device, a client device, a mobile telephone, a personal digital assistant (PDA), a mobile audio or video player, a game console, a vehicle-mounted computer, or a Global Positioning System (GPS), or the like. Computer system 800 may also be connected to other devices that are not illustrated, or may operate as a stand-alone system. In addition, the functionality provided by the illustrated components may in some embodiments be combined in fewer components or distributed in additional components. Similarly, in some embodiments, the functionality of some of the illustrated components may not be provided or other additional functionality may be available.

[0010] Those skilled in the art will also appreciate that while various items are illustrated as being stored in memory or on storage while being used, these items or portions of them may be transferred between memory and other storage devices for purposes of memory management and data integrity. Alternatively, in other embodiments some or all of the software components may execute in memory on another device and communicate with the illustrated computer system via inter-computer communication. Some or all of the system components or data structures may also be stored (e.g., as instructions or structured data) on a computer-accessible medium or a portable article to be read by an appropriate drive, various examples of which are described above. In some embodiments, instructions stored on a computer-accessible medium separate

from computer system 800 may be transmitted to computer system 800 via transmission media or signals such as electrical, electromagnetic, or digital signals, conveyed via a communication medium such as a network or a wireless link. Various embodiments may further include receiving, sending, or storing instructions or data implemented in accordance with the foregoing description upon a computer-accessible medium. Accordingly, the present invention may be practiced with other computer system configurations.

[0011] It should be understood that the description and the drawings are not intended to limit the invention to the particular form disclosed, but to the contrary, the intention is to cover all modifications, equivalents, and alternatives falling within the spirit and scope of the present invention as defined by the appended claims. Further modifications and alternative embodiments of various aspects of the invention will be apparent to those skilled in the art in view of this description. Accordingly, this description and the drawings are to be construed as illustrative only and are for the purpose of teaching those skilled in the art the general manner of carrying out the invention. It is to be understood that the forms of the invention shown and described herein are to be taken as examples of embodiments. Elements and materials may be substituted for those illustrated and described herein, parts and processes may be reversed or omitted, and certain features of the invention may be utilized independently, all as would be apparent to one skilled in the art after having the benefit of this description of the invention. Changes may be made in the elements described herein without departing from the spirit and scope of the invention as described in the following claims. Headings used herein are for organizational purposes only and are not meant to be used to limit the scope of the description.

[0012] As used throughout this application, the word “may” is used in a permissive sense (i.e., meaning having the potential to), rather than the mandatory sense (i.e., meaning must). The words “include”, “including”, and “includes” and the like mean including, but not limited to. As used throughout this application, the singular forms “a,” “an,” and “the” include plural referents unless the content explicitly indicates otherwise. Thus, for example, reference to “an element” or “a element” includes a combination of two or more elements, notwithstanding use of other terms and phrases for one or more elements, such as “one or more.” The term “or” is, unless indicated otherwise, non-exclusive, i.e., encompassing both “and” and “or.” Terms describing conditional relationships, e.g., “in response to X, Y,” “upon X, Y,” “if X, Y,” “when X, Y,” and the like,

encompass causal relationships in which the antecedent is a necessary causal condition, the antecedent is a sufficient causal condition, or the antecedent is a contributory causal condition of the consequent, e.g., "state X occurs upon condition Y obtaining" is generic to "X occurs solely upon Y" and "X occurs upon Y and Z." Such conditional relationships are not limited to consequences that instantly follow the antecedent obtaining, as some consequences may be delayed, and in conditional statements, antecedents are connected to their consequents, e.g., the antecedent is relevant to the likelihood of the consequent occurring. Further, unless otherwise indicated, statements that one value or action is "based on" another condition or value encompass both instances in which the condition or value is the sole factor and instances in which the condition or value is one factor among a plurality of factors. Unless specifically stated otherwise, as apparent from the discussion, it is appreciated that throughout this specification discussions utilizing terms such as "processing," "computing," "calculating," "determining" or the like refer to actions or processes of a specific apparatus, such as a special purpose computer or a similar special purpose electronic processing/computing device.

[00103] In this patent, certain U.S. patents, U.S. patent applications, or other materials (e.g., articles) have been incorporated by reference. The text of such U.S. patents, U.S. patent applications, and other materials is, however, only incorporated by reference to the extent that no conflict exists between such material and the statements and drawings set forth herein. In the event of such conflict, any such conflicting text in such incorporated by reference U.S. patents, U.S. patent applications, and other materials is specifically not incorporated by reference in this patent.

[00104] The present techniques will be better understood when considered in view of the following enumerated embodiments:

1. A computer-implemented method for providing an event-based offer, comprising: obtaining, by one or more processors, an event geofence defining a perimeter around a geographic area that includes an event venue; obtaining, by one or more processors, one or more event criteria associated with an event-based offer; identifying, by one or more processors, a plurality of mobile user devices within the event geofence; obtaining, by one or more processors, event data associated with an event occurring at the event venue; comparing, by one or more processors, the event data to the event criteria to determine whether the event criteria are met;

and providing over a network, by one or more processors, the event-based offer to the plurality of mobile user devices within the event geofence when the one or more event criteria are met.

2. The computer-implemented method of embodiment 1, wherein the event comprises a concert, a sporting event, a conference, or a tradeshow.

3. The computer-implemented method of any of embodiments 1-2, wherein the event venue comprises a stadium, an arena, a concert hall, or a conference center.

4. The computer-implemented method of any of embodiments 1-3, where the event criteria comprises the start of the event.

5. The computer-implemented method of any of embodiments 1-4, wherein the event criteria comprises an outcome of a sporting event.

6. The computer-implemented method of any of embodiments 1-5, wherein the event-based offer is redeemable at a point-of-sale system during the event.

7. The computer-implemented method of any of embodiments 1-6, wherein the event-based offer is redeemable after the event ends.

8. The computer-implemented method of any of embodiments 1-7, comprising sending over the network, by one or more processors, a pre-offer alert to the plurality of mobile user devices before sending the event-based offer to the plurality of mobile user-devices.

9. The computer-implemented method of any of embodiments 1-8, wherein the event-based offer comprises an offer description and a redeemable offer code.

10. A computer-implemented method for providing an event-based offer, comprising: receiving, at an offers engine, a request for an event-based offer from a merchant; generating, via the offers engine, an event-based offer having a merchant logo and an offer description, the event-based offer including an offer code redeemable at the merchant; obtaining, at the offers engine, event data about an event occurring at the event venue; providing over a network, from the offers engine, the event-based offer to a plurality of mobile user devices located at the event venue upon based on the event data.

11. The computer-implemented method of embodiment 10, wherein the offer code comprises a single-use offer code.

12. The computer-implemented method of any of embodiments 10-11, wherein the event-based offer is redeemable after the event ends.
13. The computer-implemented method of any of embodiments 10-12, wherein the merchant is not located at the event venue.
14. The computer-implemented method of any of embodiments 10-14, wherein the event data comprises an identification of an interval during the event.
15. A tangible non-transitory computer-readable media storing instructions that, when executed by one or more processors, cause at least some of the one or more processors to perform operations comprising the steps of any of embodiments 1-14.
16. A system, comprising: one or more processors; and memory storing instructions that when executed by at least some of the processors effectuate operations comprising: the steps of any of embodiments 1-14.

CLAIMS

What is claimed is:

1. A computer-implemented method for providing an event-based offer, comprising:
 - obtaining, by one or more processors, an event geofence defining a perimeter around a geographic area that includes an event venue;
 - obtaining, by one or more processors, one or more event criteria associated with an event-based offer;
 - identifying, by one or more processors, a plurality of mobile user devices within the event geofence;
 - obtaining, by one or more processors, event data associated with an event occurring at the event venue;
 - comparing, by one or more processors, the event data to the event criteria to determine whether the event criteria are met; and
 - providing over a network, by one or more processors, the event-based offer to the plurality of mobile user devices within the event geofence when the one or more event criteria are met.
2. The computer-implemented method of claim 1, wherein the event comprises a concert, a sporting event, a conference, or a tradeshow.
3. The computer-implemented method of any of claims 1-2, wherein the event venue comprises a stadium, an arena, a concert hall, or a conference center.
4. The computer-implemented method of any of claims 1-3, where the event criteria comprises the start of the event.

5. The computer-implemented method of any of claims 1-4, wherein the event criteria comprises an outcome of a sporting event.
6. The computer-implemented method of any of claims 1-5, wherein the event-based offer is redeemable at a point-of-sale system during the event.
7. The computer-implemented method of any of claims 1-6, wherein the event-based offer is redeemable after the event ends.
8. The computer-implemented method of any of claims 1-7, comprising sending over the network, by one or more processors, a pre-offer alert to the plurality of mobile user devices before sending the event-based offer to the plurality of mobile user-devices.
9. The computer-implemented method of any of claims 1-8, wherein the event-based offer comprises an offer description and a redeemable offer code.
10. A computer-implemented method for providing an event-based offer, comprising:
 - receiving, at an offers engine, a request for an event-based offer from a merchant;
 - generating, via the offers engine, an event-based offer having a merchant logo and an offer description, the event-based offer including an offer code redeemable at the merchant;
 - obtaining, at the offers engine, event data about an event occurring at the event venue;
 - providing over a network, from the offers engine, the event-based offer to a plurality of mobile user devices located at the event venue upon based on the event data.
11. The computer-implemented method of claim 10, wherein the offer code comprises a single-use offer code.

12. The computer-implemented method of any of claims 10-11, wherein the event-based offer is redeemable after the event ends.
13. The computer-implemented method of any of claims 10-12, wherein the event data comprises an identification of an interval during the event.
14. A tangible non-transitory computer-readable media storing instructions that, when executed by one or more processors, cause at least some of the one or more processors to perform operations comprising the steps of any of claims 1-13.
15. A system, comprising: one or more processors; and memory storing instructions that when executed by at least some of the processors effectuate operations comprising: the steps of any of claims 1-13.

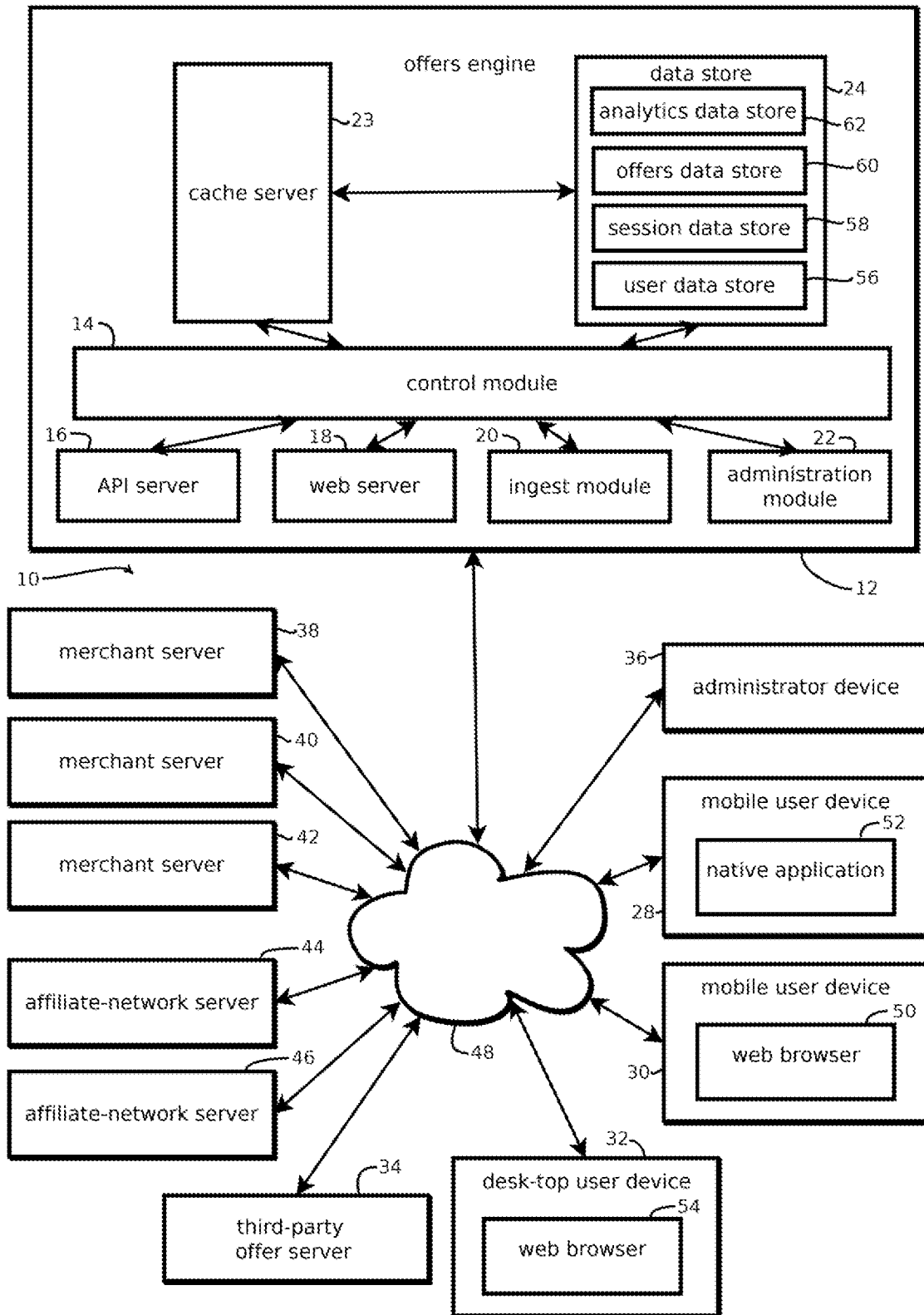


Figure 1

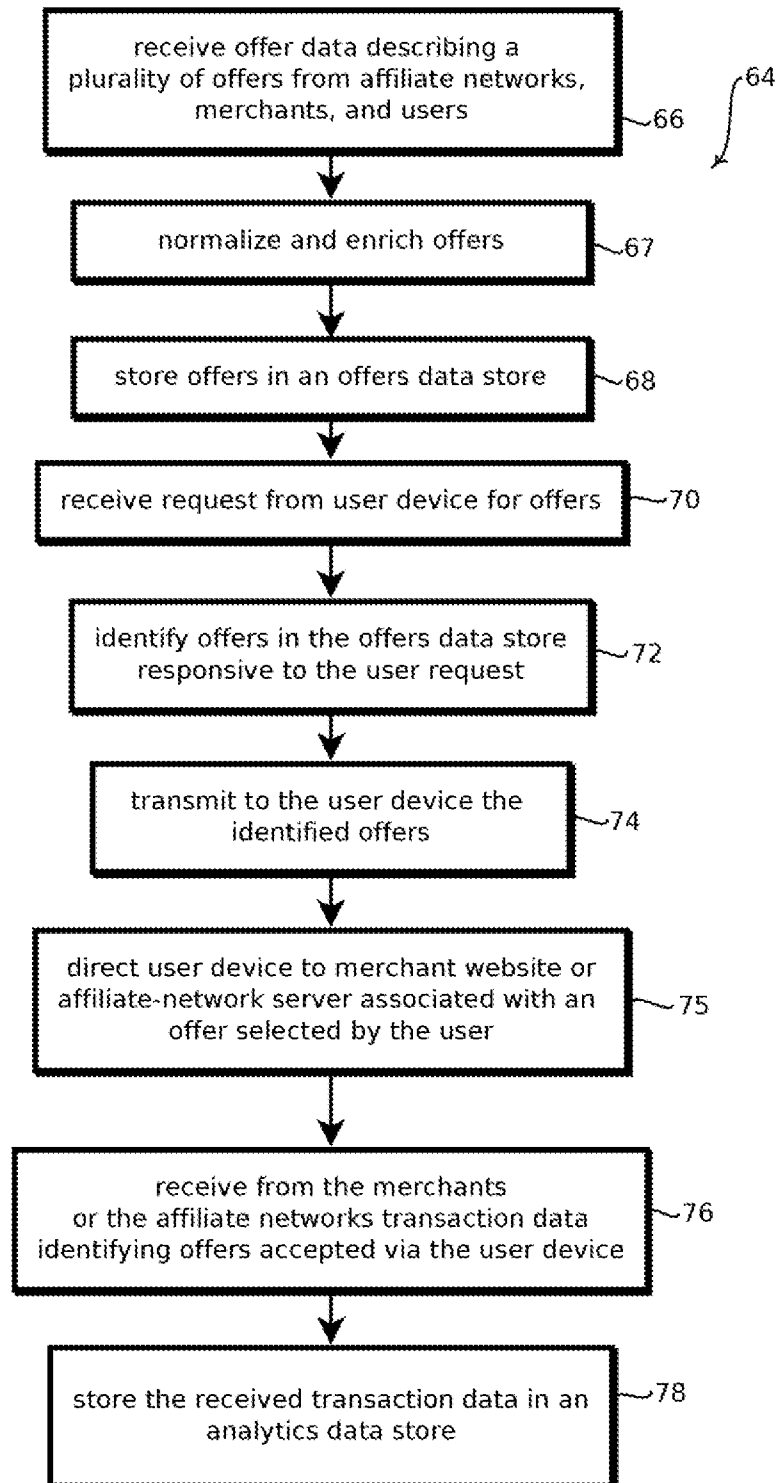


Figure 2

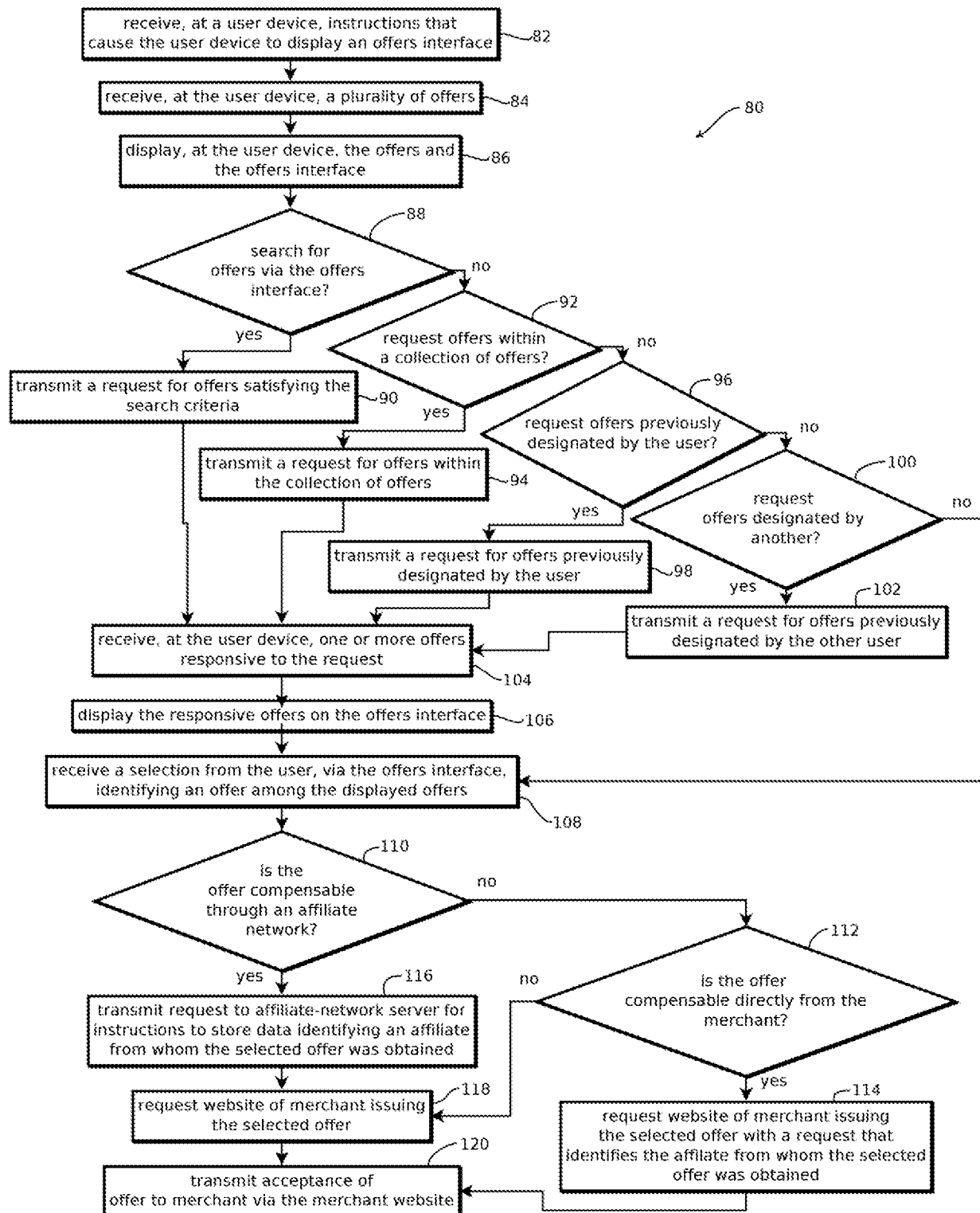


Figure 3

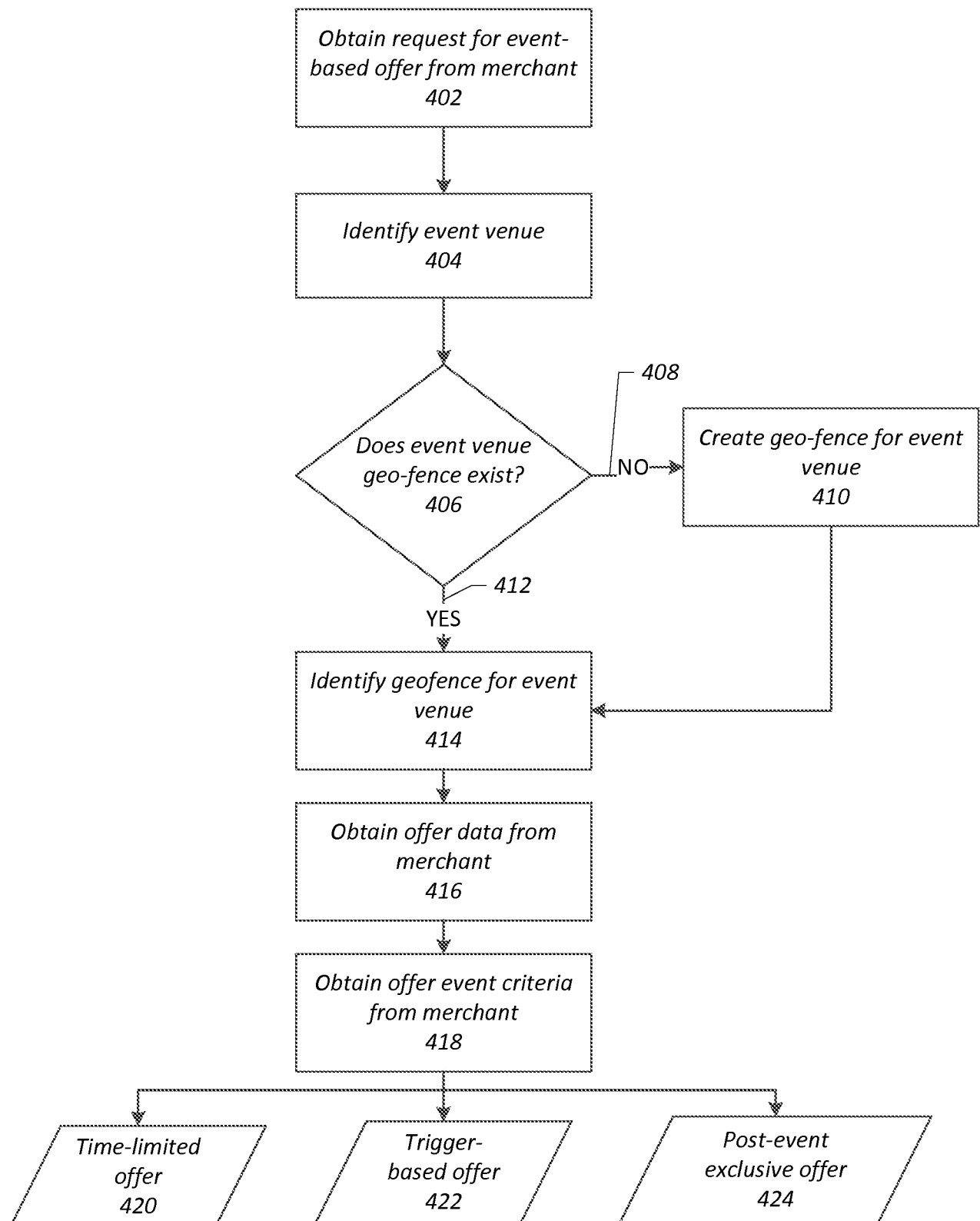


Figure 4

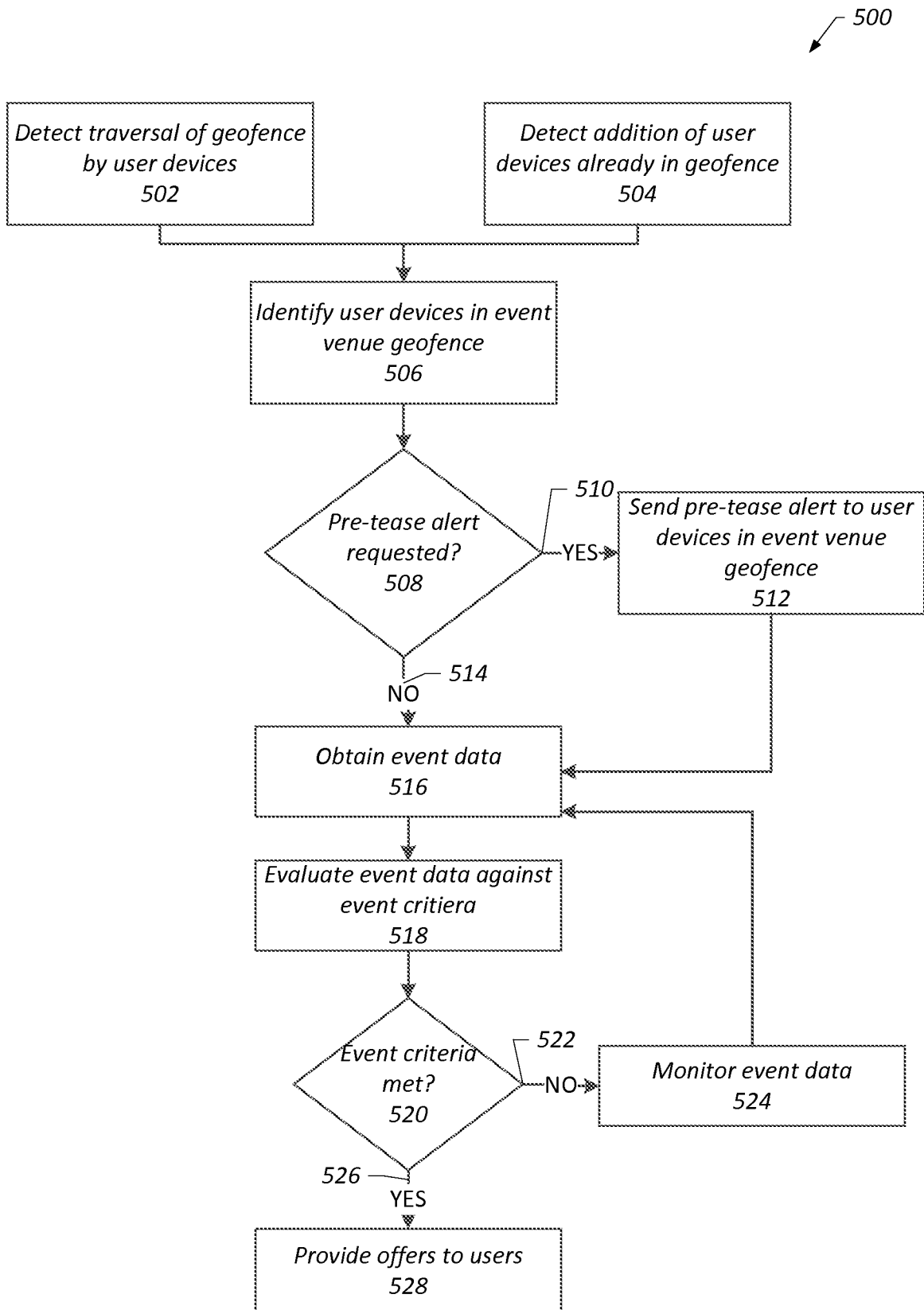


Figure 5

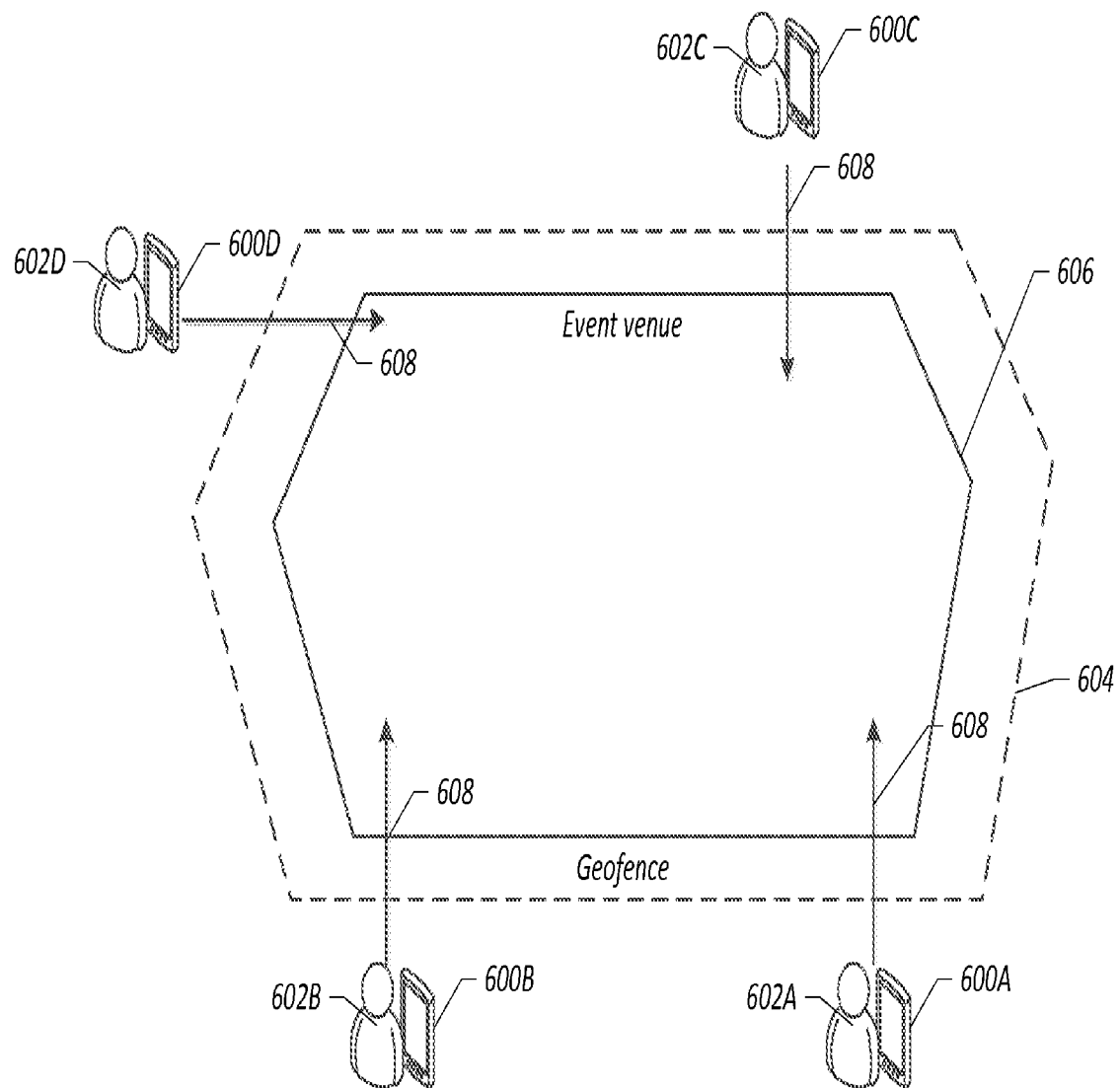


Figure 6A

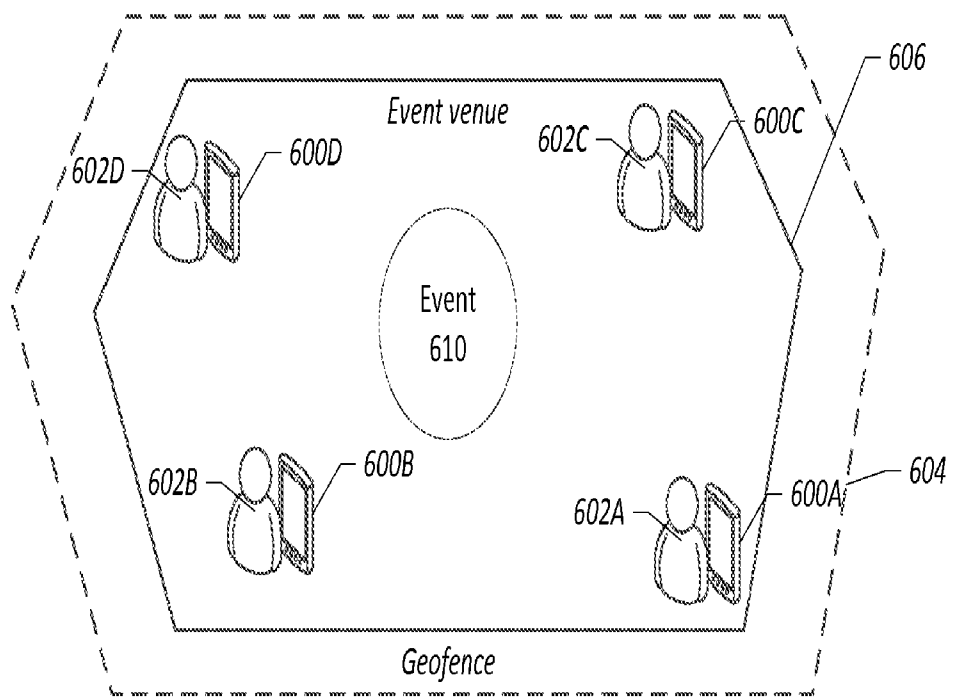
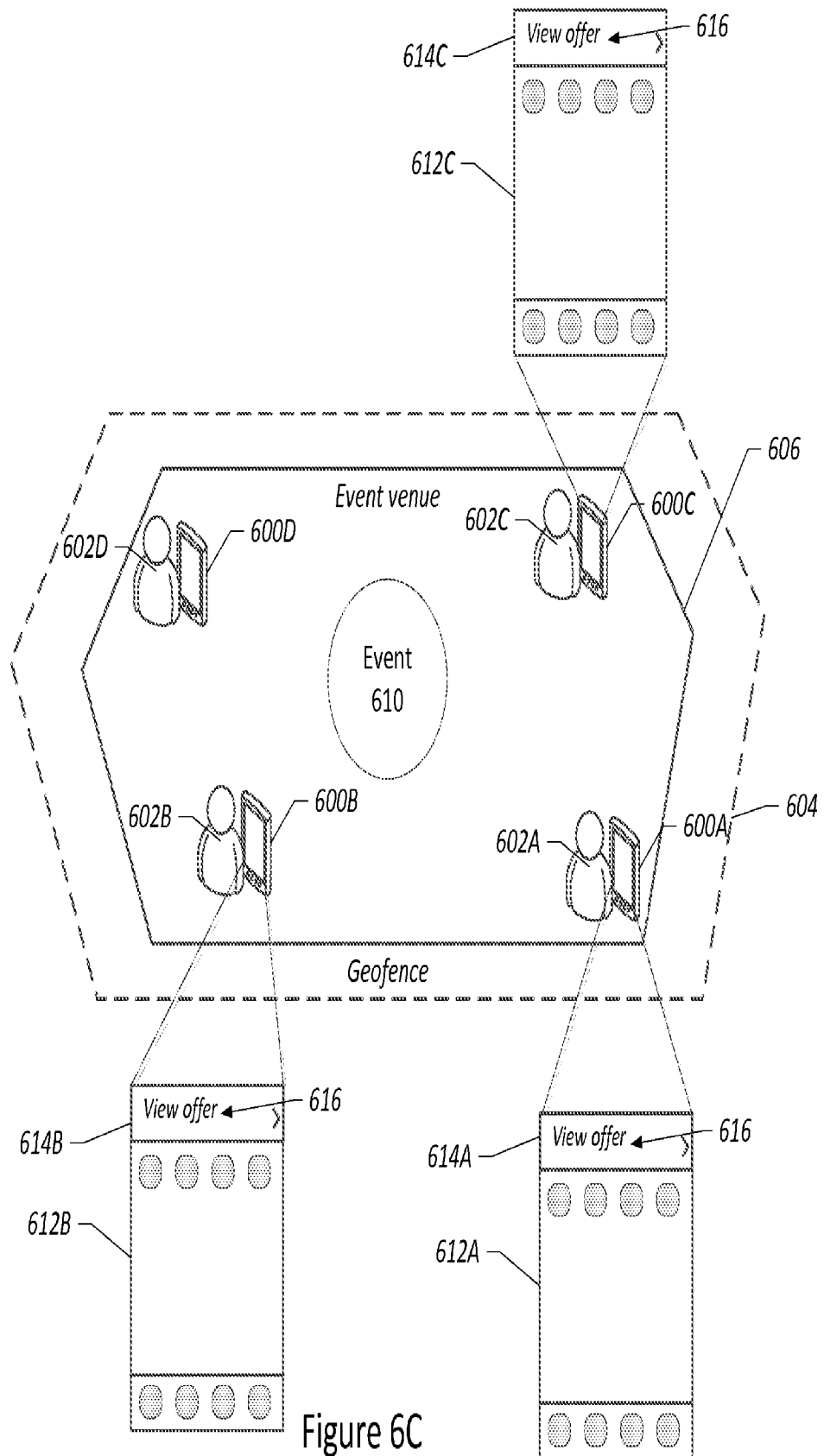
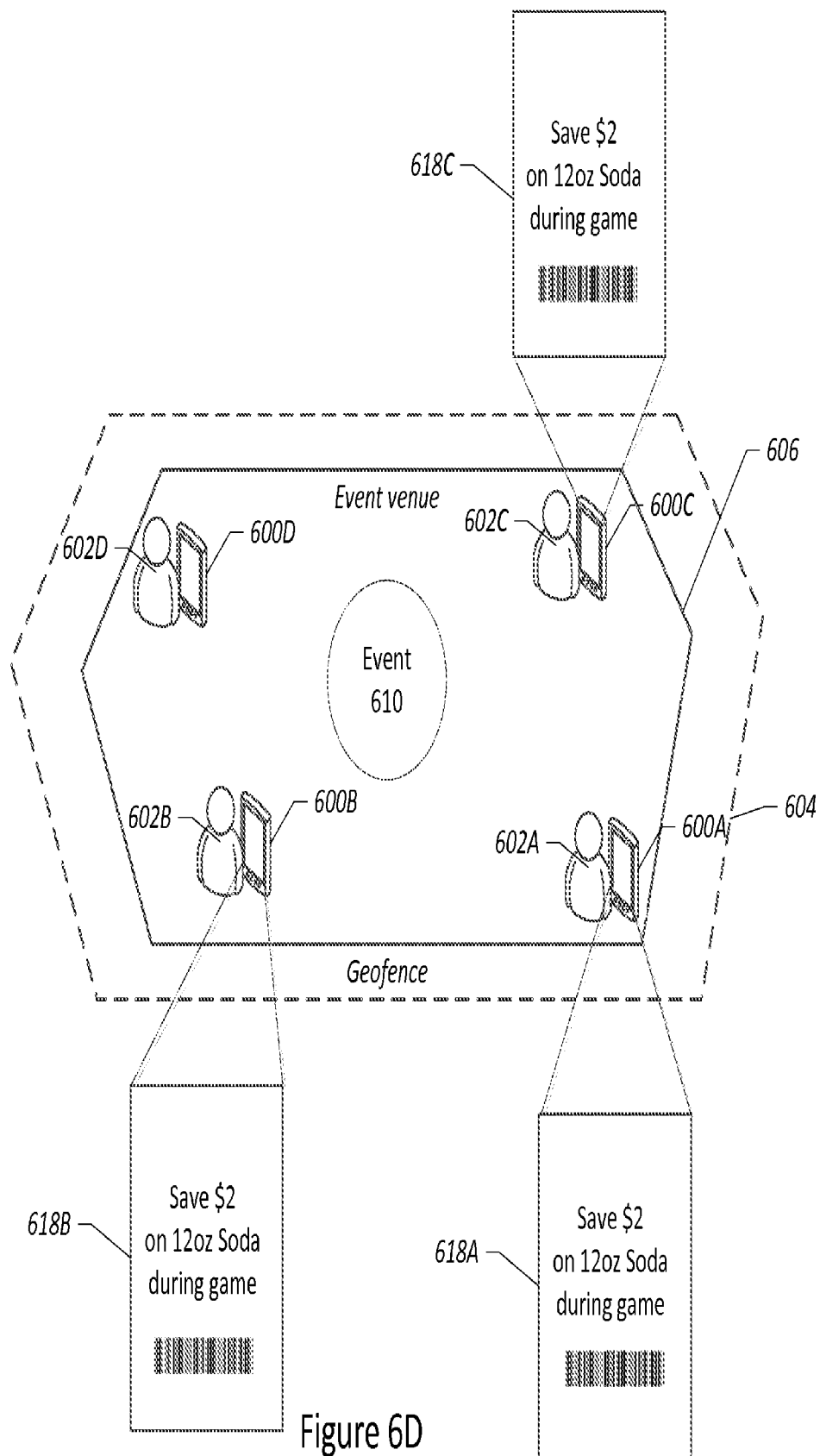


Figure 6B





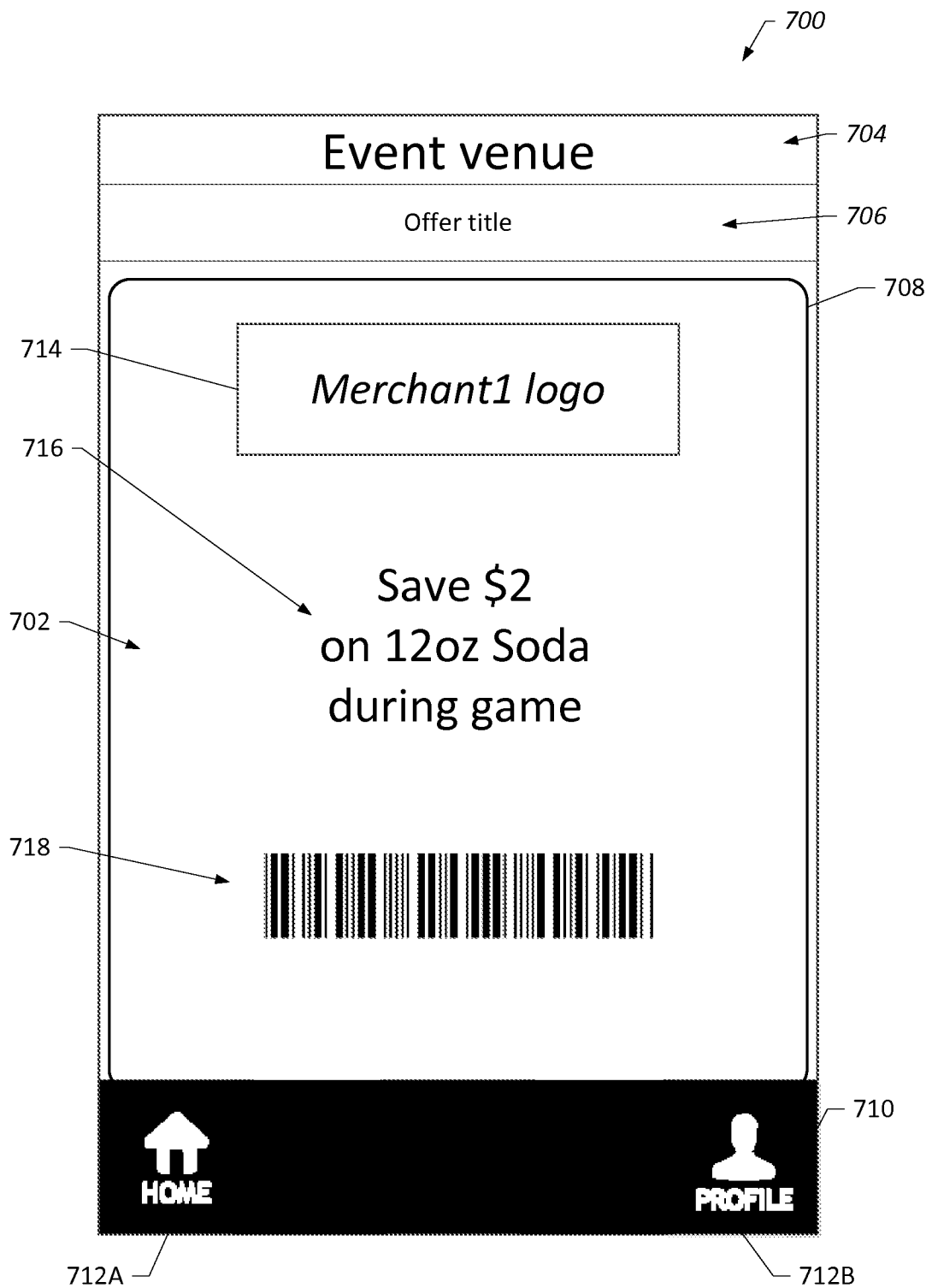


Figure 7A

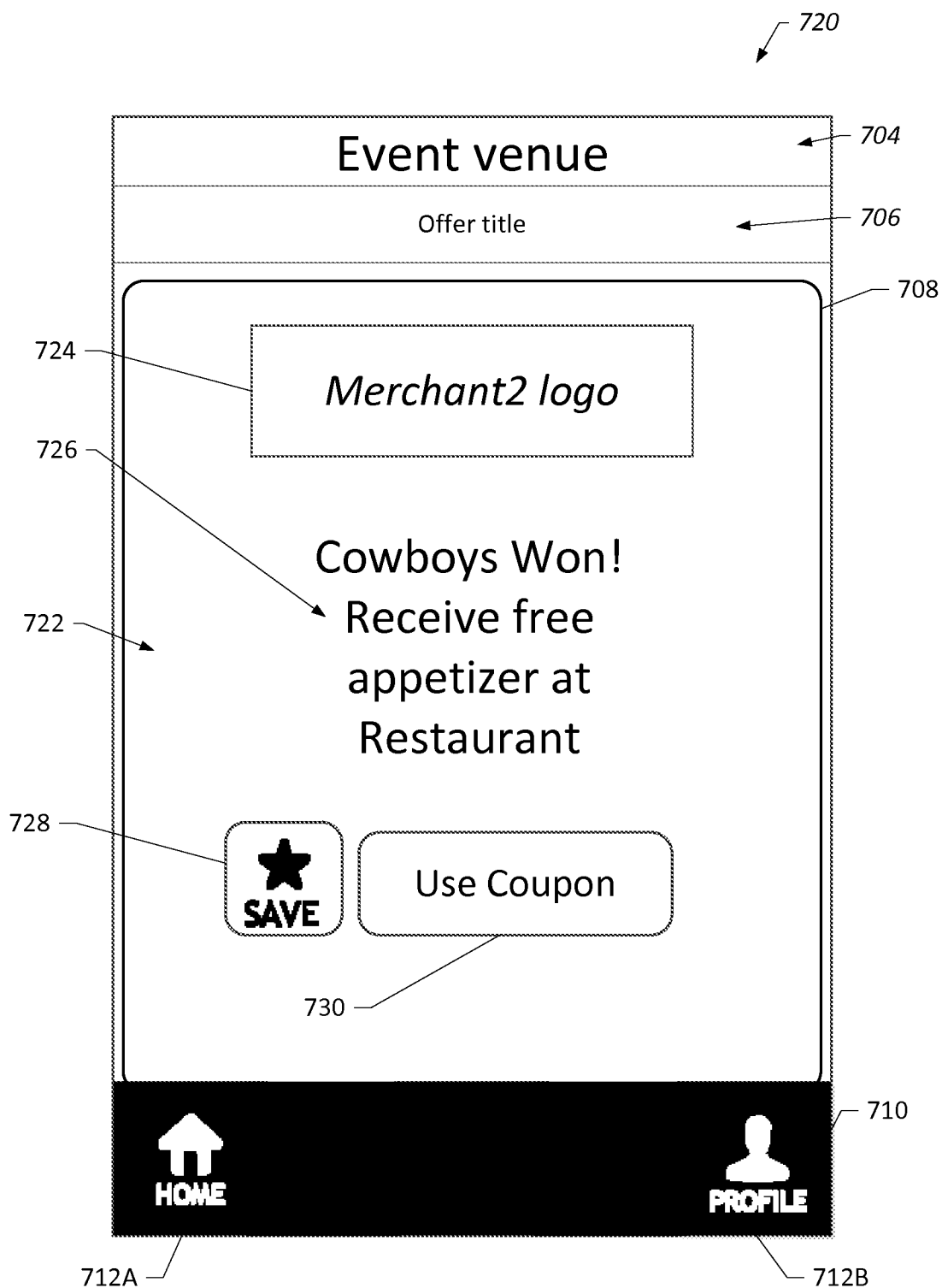


Figure 7B

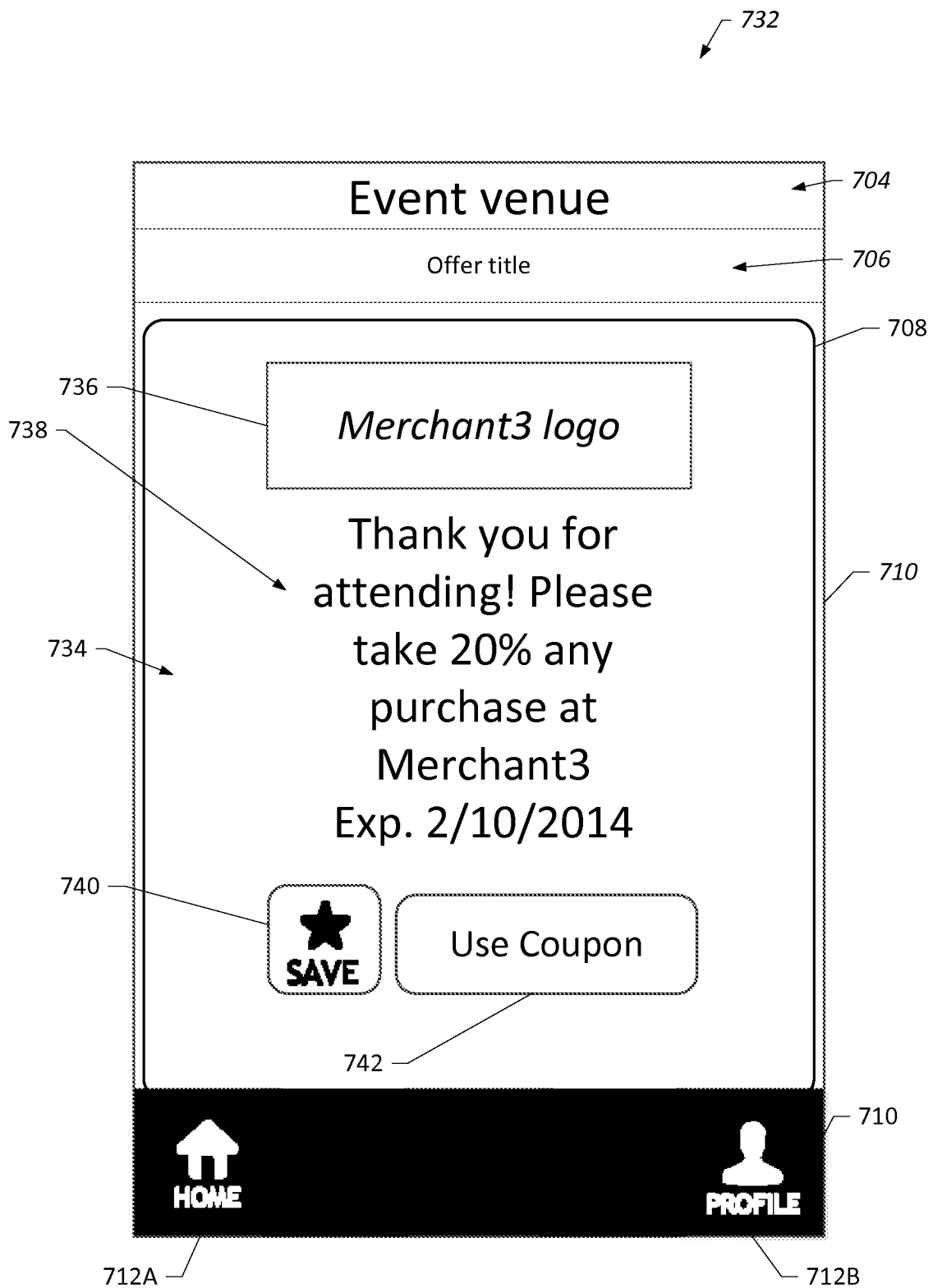


Figure 7C

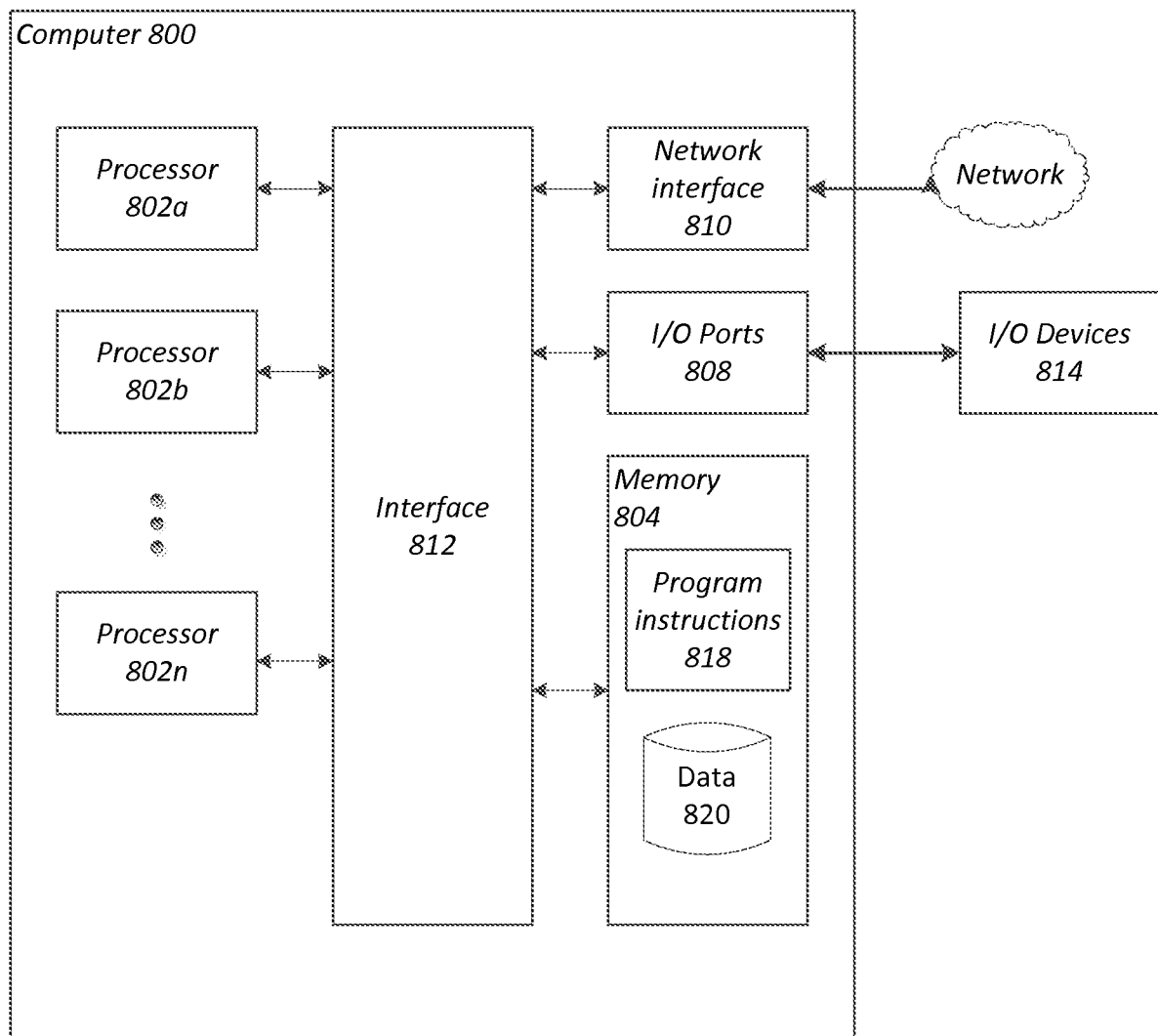


Figure 8

A. CLASSIFICATION OF SUBJECT MATTER**G06Q 30/02(2012.01)i**

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHEDMinimum documentation searched (classification system followed by classification symbols)
G06Q 30/02; G06Q 30/00; H04W 24/00Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched
Korean utility models and applications for utility models
Japanese utility models and applications for utility modelsElectronic data base consulted during the international search (name of data base and, where practicable, search terms used)
eKOMPASS(KIPO internal) & Keywords: event, geo-fence, offer, location, area, mobile**C. DOCUMENTS CONSIDERED TO BE RELEVANT**

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	US 2013-0054422 A1 (MICHAEL DESOUZA et al.) 28 February 2013 See abstract, paragraphs [0108]-[0109], [0111], claims 1-3, 11 and figures 1-2.	1-3, 10-12
Y	US 2013-0332274 A1 (RETAILMENOT, INC.) 12 December 2013 See abstract, paragraphs [0090], [0095], claims 1, 8 and figures 7A-7B.	1-3, 10-12
Y	KR 10-2013-0065671 A (BIZMODEL LINE CO., LTD.) 19 June 2013 See abstract, paragraphs [0050]-[0051] and claims 1-3.	11
Y	US 2013-0045753 A1 (LANCE OBERMEYER et al.) 21 February 2013 See abstract, paragraphs [0040], [0044]-[0045] and claim 1.	12
A	US 2014-0032295 A1 (EDWARD CANTRELL) 30 January 2014 See abstract, claims 1-2, 4, 8-9, 19 and figures 4-7.	1-3, 10-12



Further documents are listed in the continuation of Box C.



See patent family annex.

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

Date of the actual completion of the international search

27 May 2015 (27.05.2015)

Date of mailing of the international search report

27 May 2015 (27.05.2015)

Name and mailing address of the ISA/KR

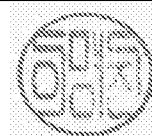
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Republic of Korea

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INTERNATIONAL SEARCH REPORTInternational application No.
PCT/US2015/015398**Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)**

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
3. ☒ Claims Nos.: 4-9, 13-15
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of any additional fees.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

PCT/US2015/015398

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US 2014-0032295 A1	30/01/2014	None	