



(19) **United States**

(12) **Patent Application Publication**
EVANS et al.

(10) **Pub. No.: US 2013/0173335 A1**

(43) **Pub. Date: Jul. 4, 2013**

(54) **LIFESTYLE APPLICATION PLATFORM**

Publication Classification

- (71) Applicant: **Verizon Patent and Licensing Inc.**,
Basking Ridge, NJ (US)
- (72) Inventors: **Ashley EVANS**, Stonington, CT (US);
Nicola S. MORRIS, Westfield, NJ (US);
Keith FUSARO, Stonington, CT (US);
John E. O'BRIEN, Buford, GA (US);
Peter M. GRAHAM, Vail, AZ (US);
Paul A. DONFRIED, Richmond, MA (US)
- (73) Assignee: **VERIZON PATENT AND LICENSING INC.**, Basking Ridge, NJ (US)

- (51) **Int. Cl.**
G06Q 30/02 (2006.01)
- (52) **U.S. Cl.**
CPC **G06Q 30/02** (2013.01)
USPC **705/7.29**

(21) Appl. No.: **13/724,329**

(22) Filed: **Dec. 21, 2012**

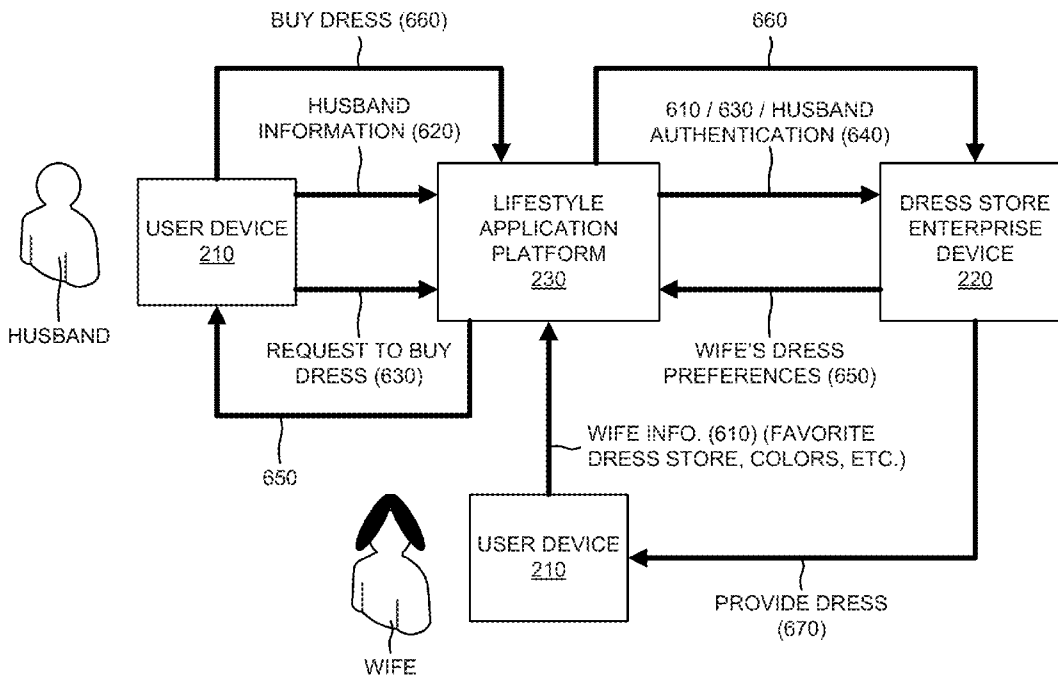
Related U.S. Application Data

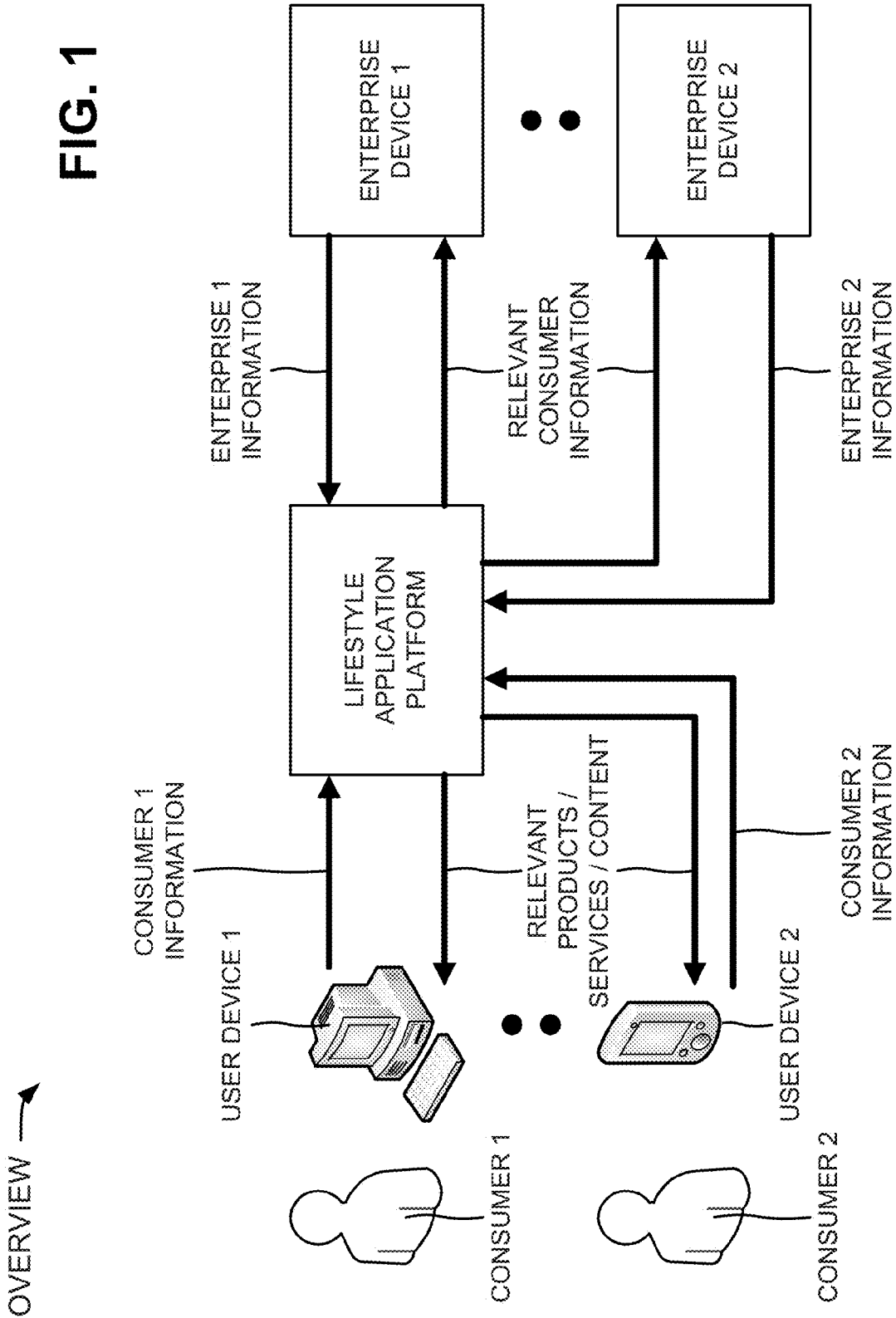
- (60) Provisional application No. 61/581,916, filed on Dec. 30, 2011.

(57) **ABSTRACT**

A lifestyle application platform receives consumer information from a user device associated with a consumer, where the consumer information includes preference, demographic, identity, relationship, transactional, and location information associated with the consumer. The lifestyle application platform creates a consumer profile for the consumer based on the consumer information, and receives enterprise information from an enterprise device associated with an enterprise, where the enterprise information includes consumer interaction, transaction, and wish list information associated with the enterprise. The lifestyle application platform performs an analysis of the consumer information and the enterprise information, and provides, to the user device, notifications, reports, and offers, associated with the enterprise and relevant to the consumer, based on the analysis.

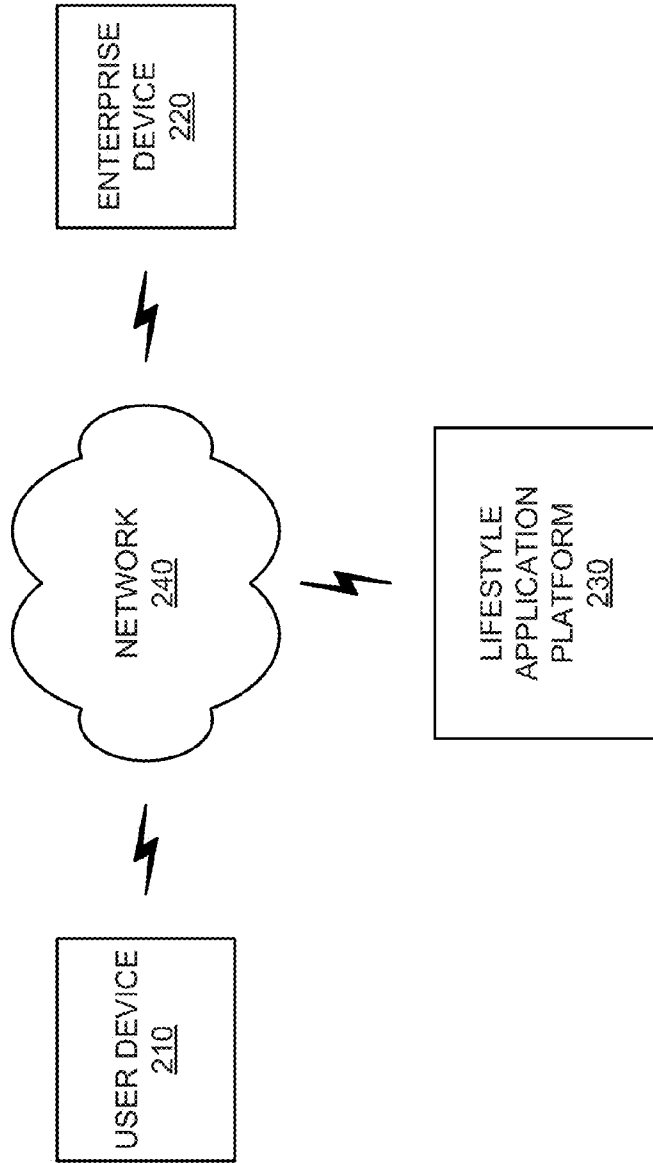
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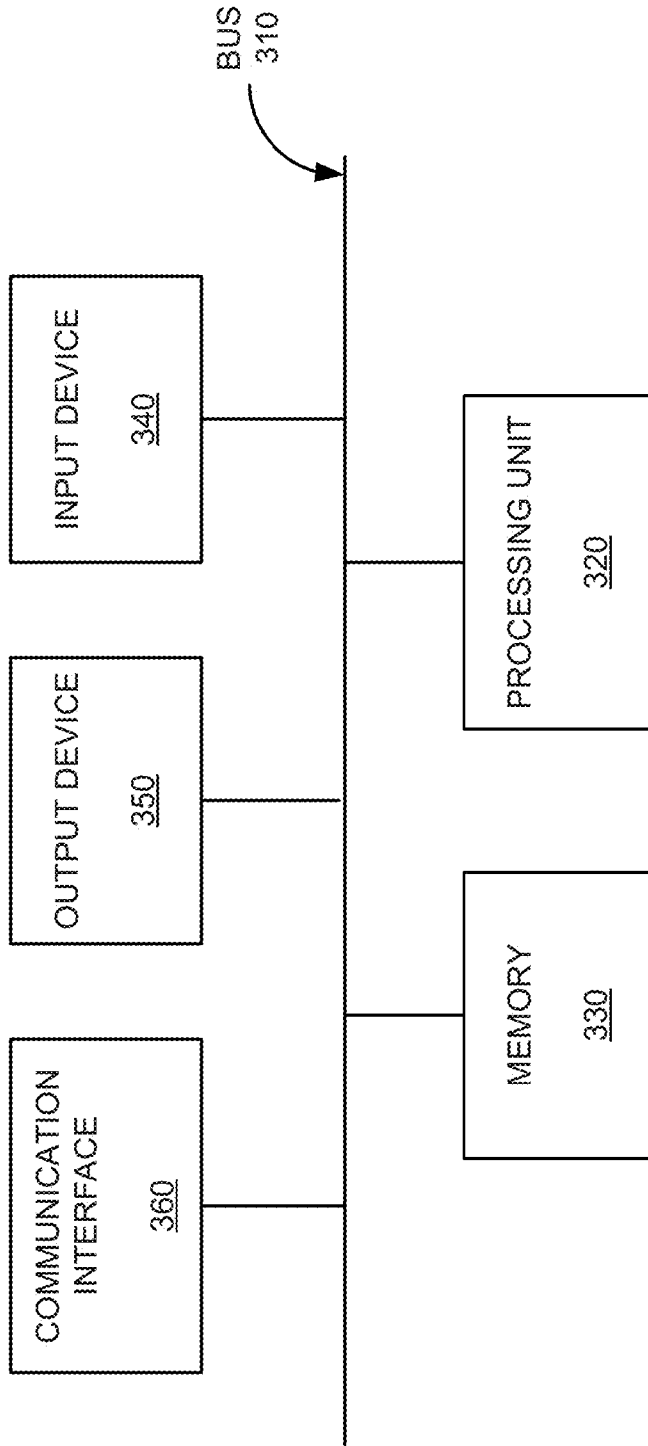
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FIG. 2



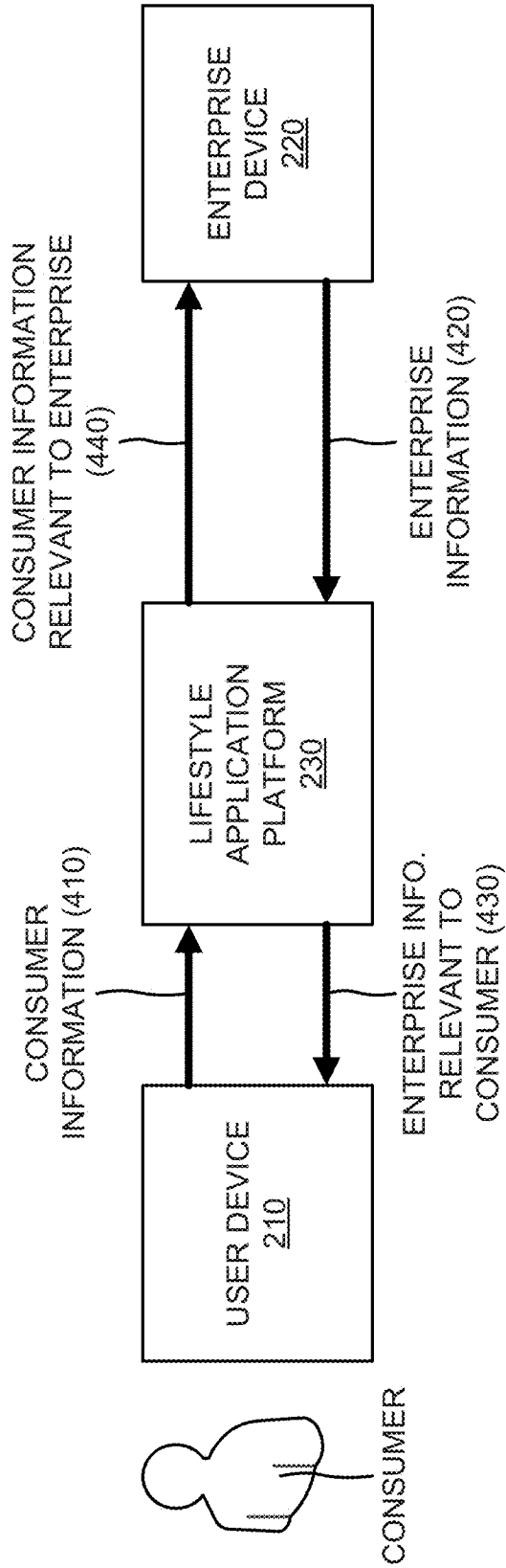
300 →

FIG. 3



400 →

FIG. 4



500 →

FIG. 5

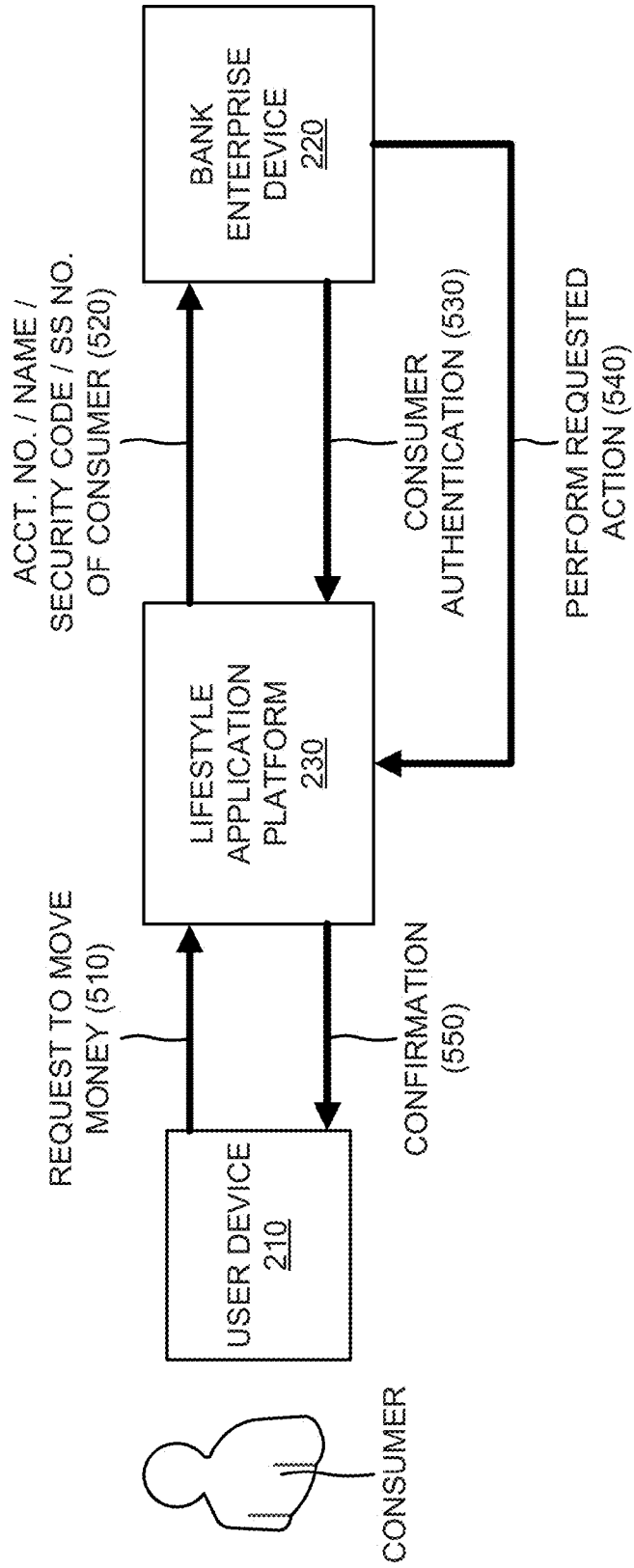
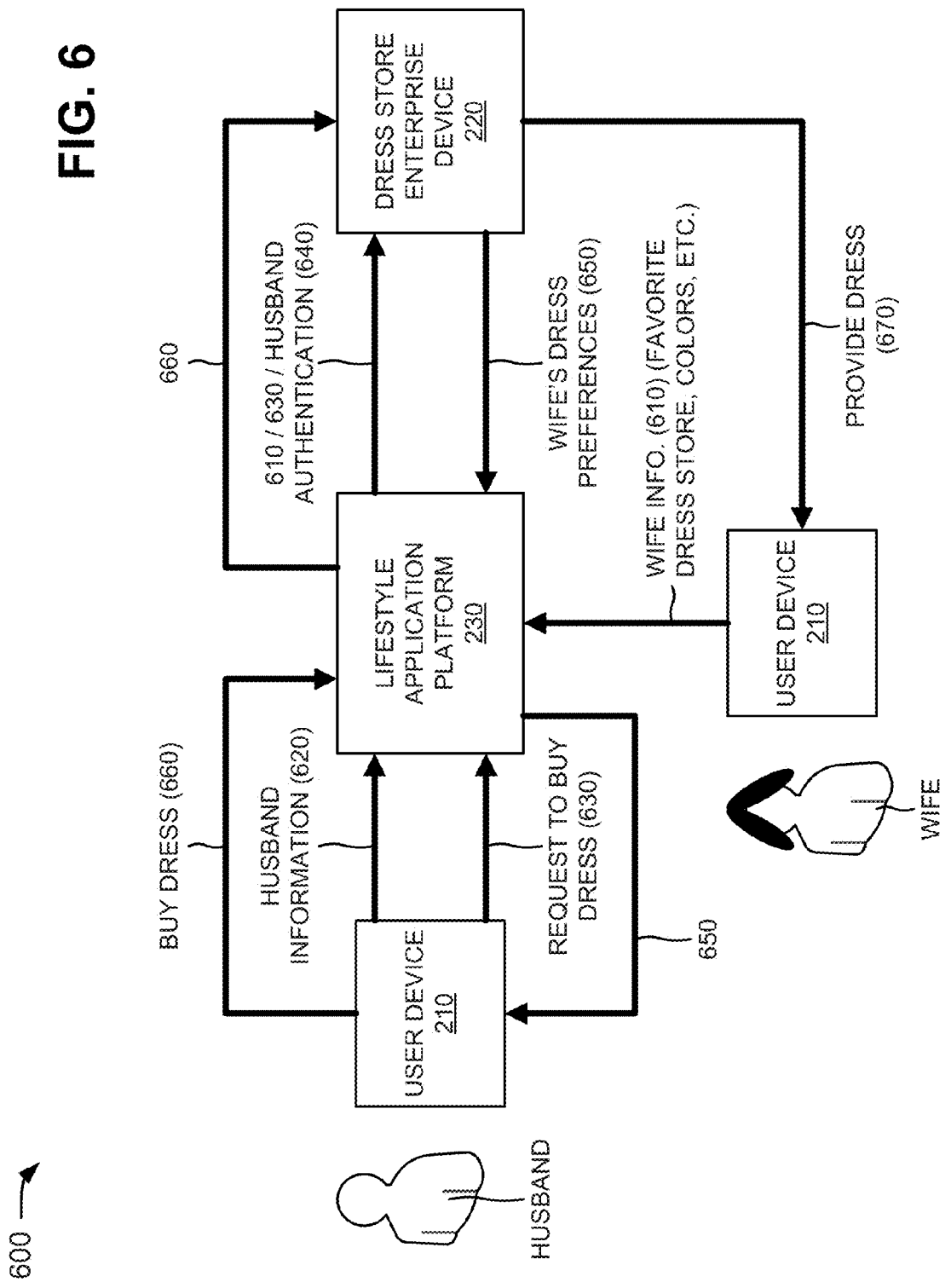


FIG. 6



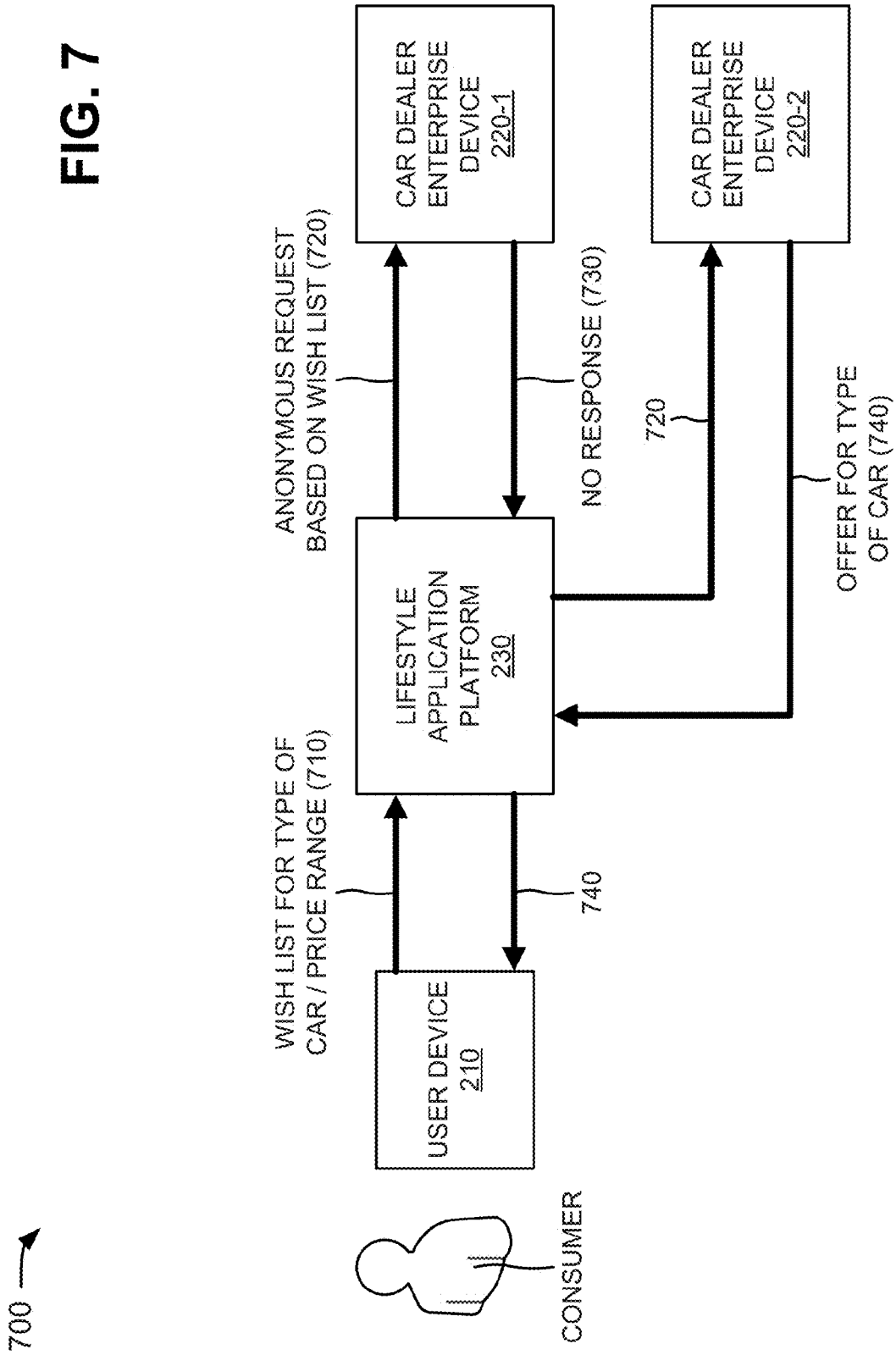
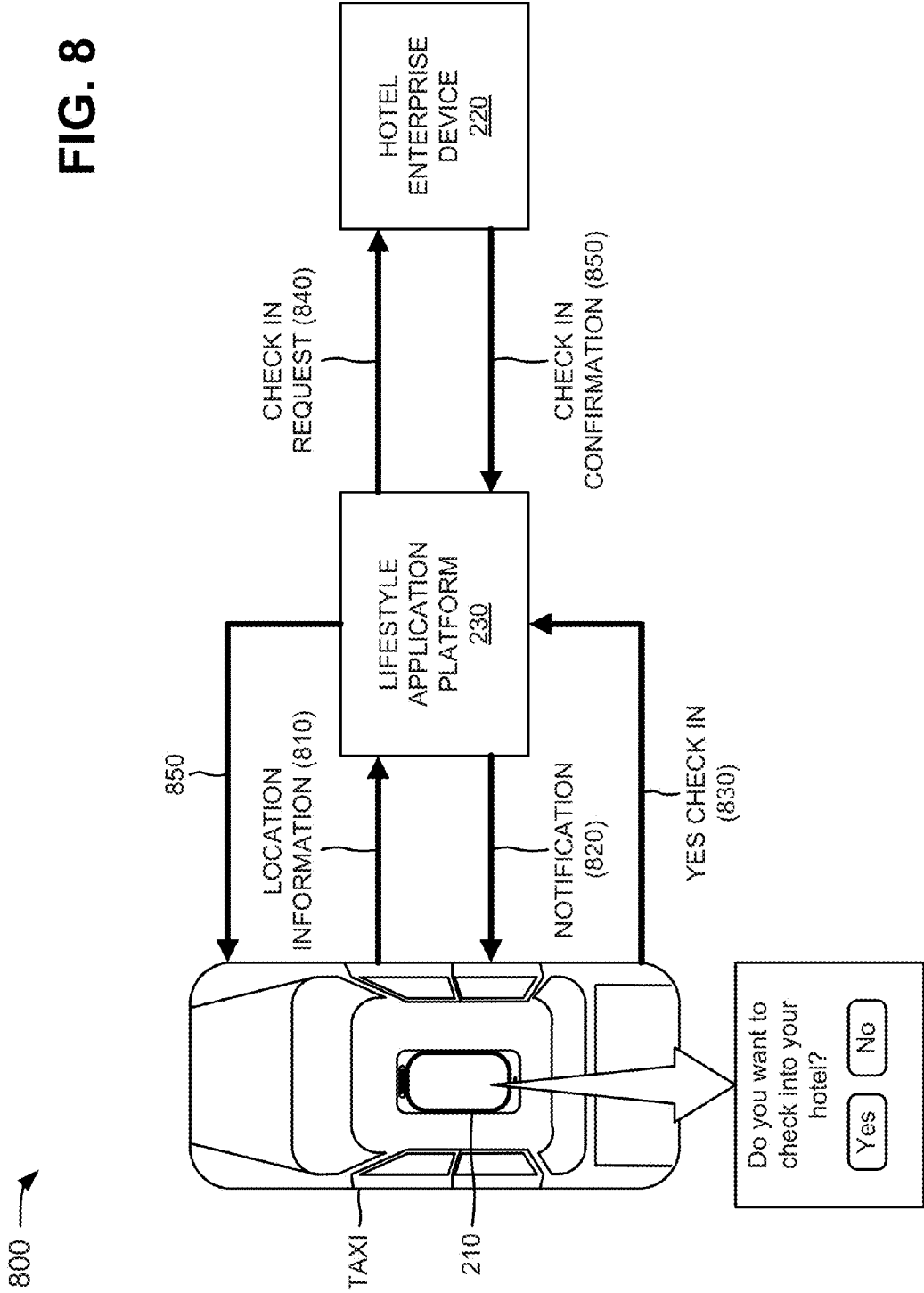


FIG. 7

FIG. 8



230 →

FIG. 9

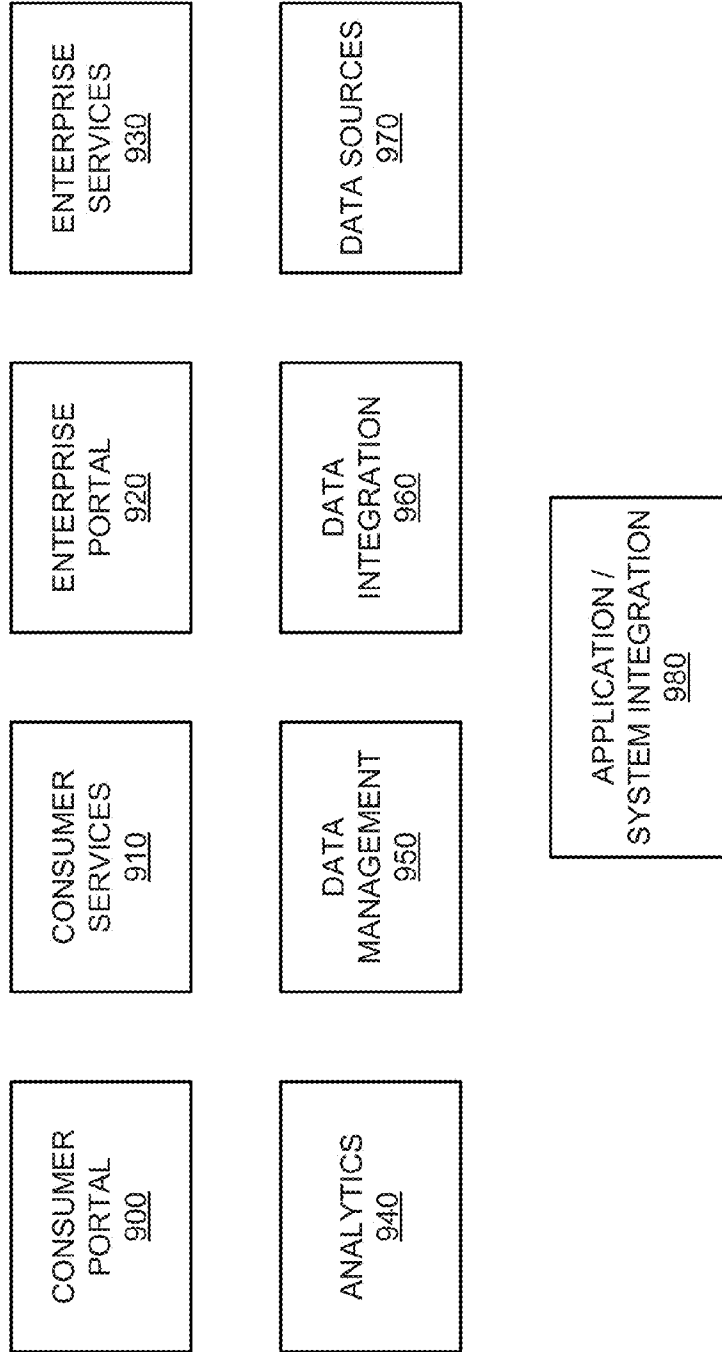


FIG. 10

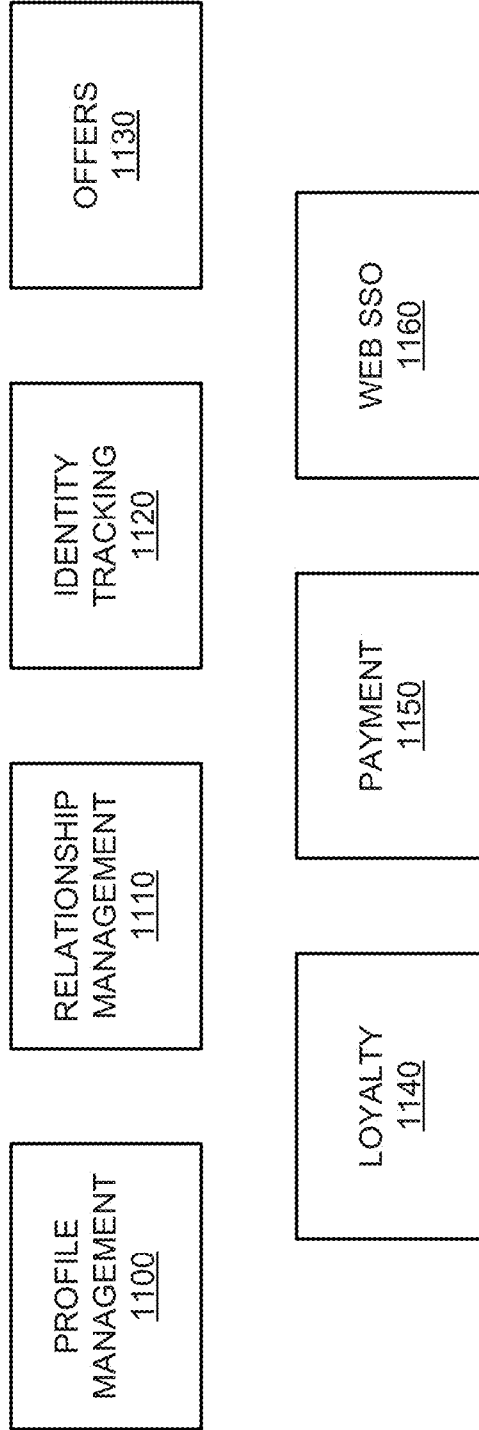
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RELATIONSHIP
CONTROL
PANEL
1010

PROFILE
CONTROL
PANEL
1000

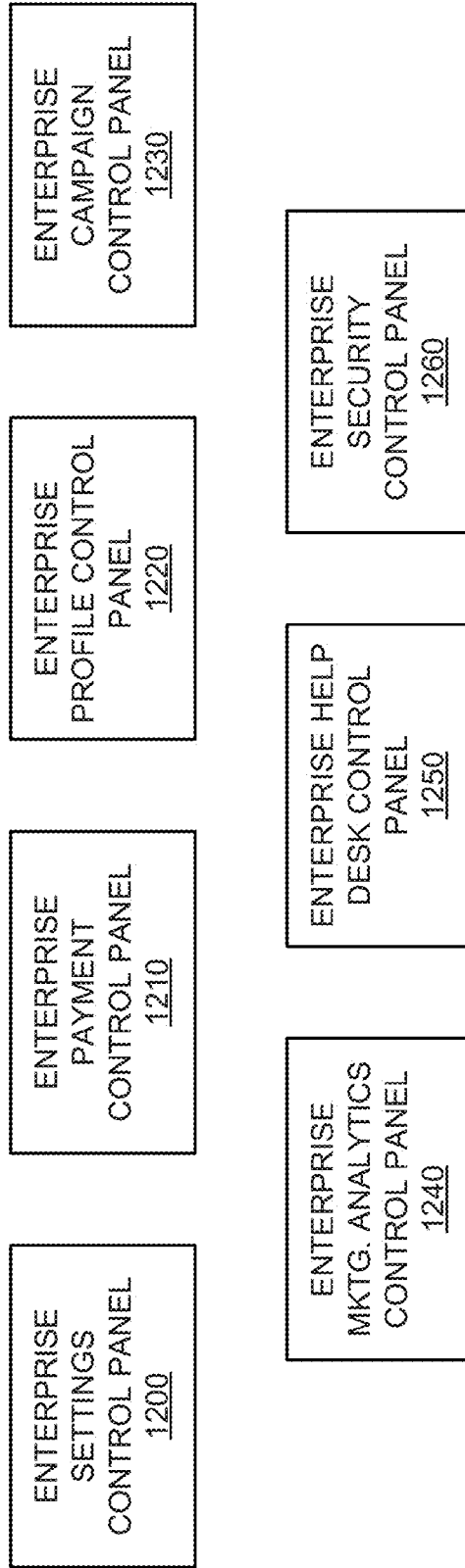
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FIG. 11



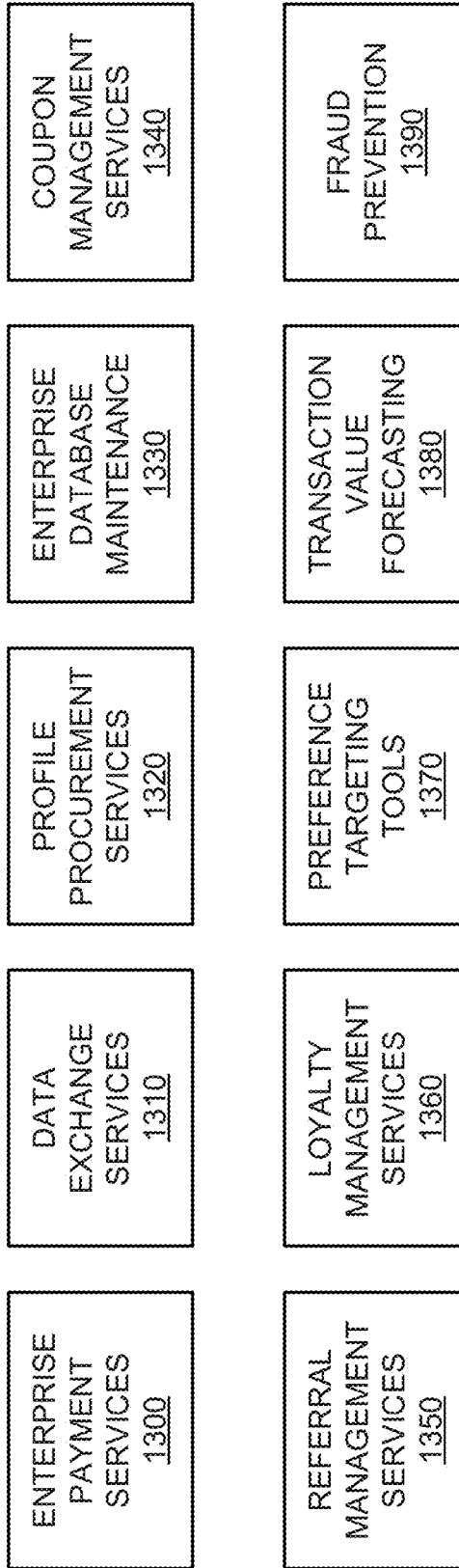
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FIG. 12



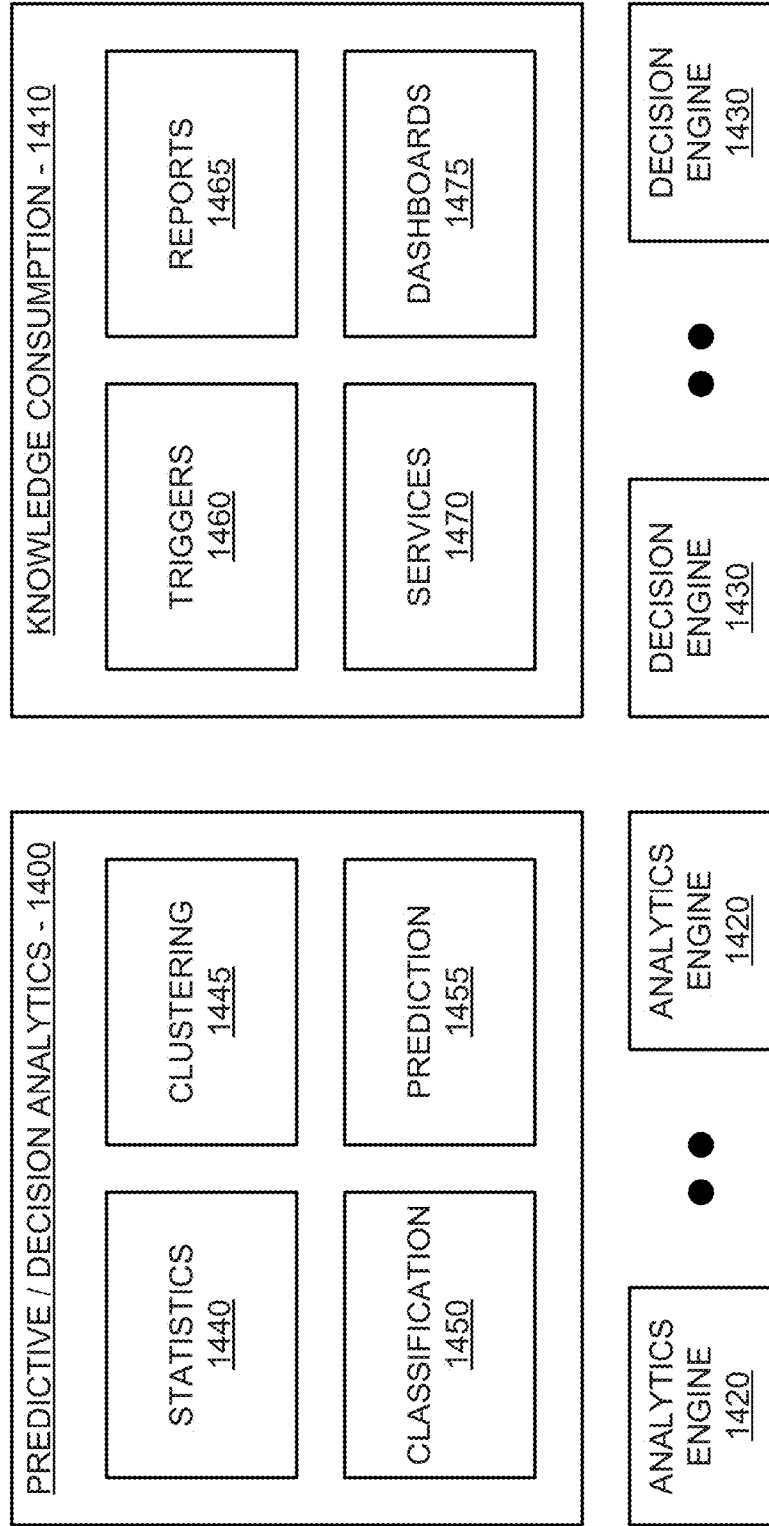
930 →

FIG. 13



940 →

FIG. 14



960 →

FIG. 15

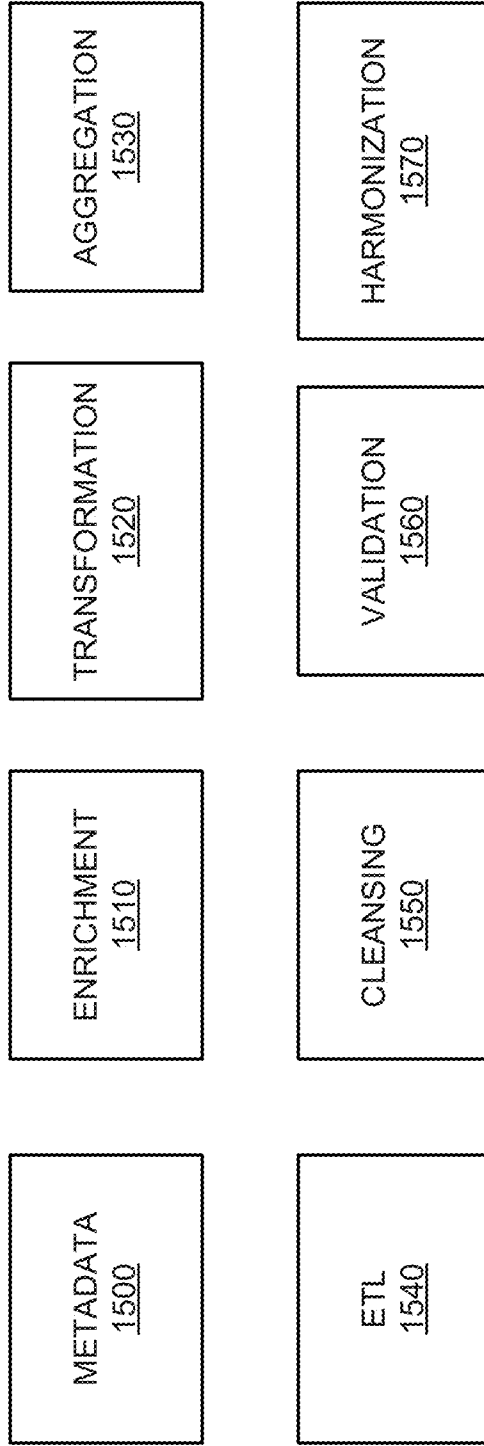
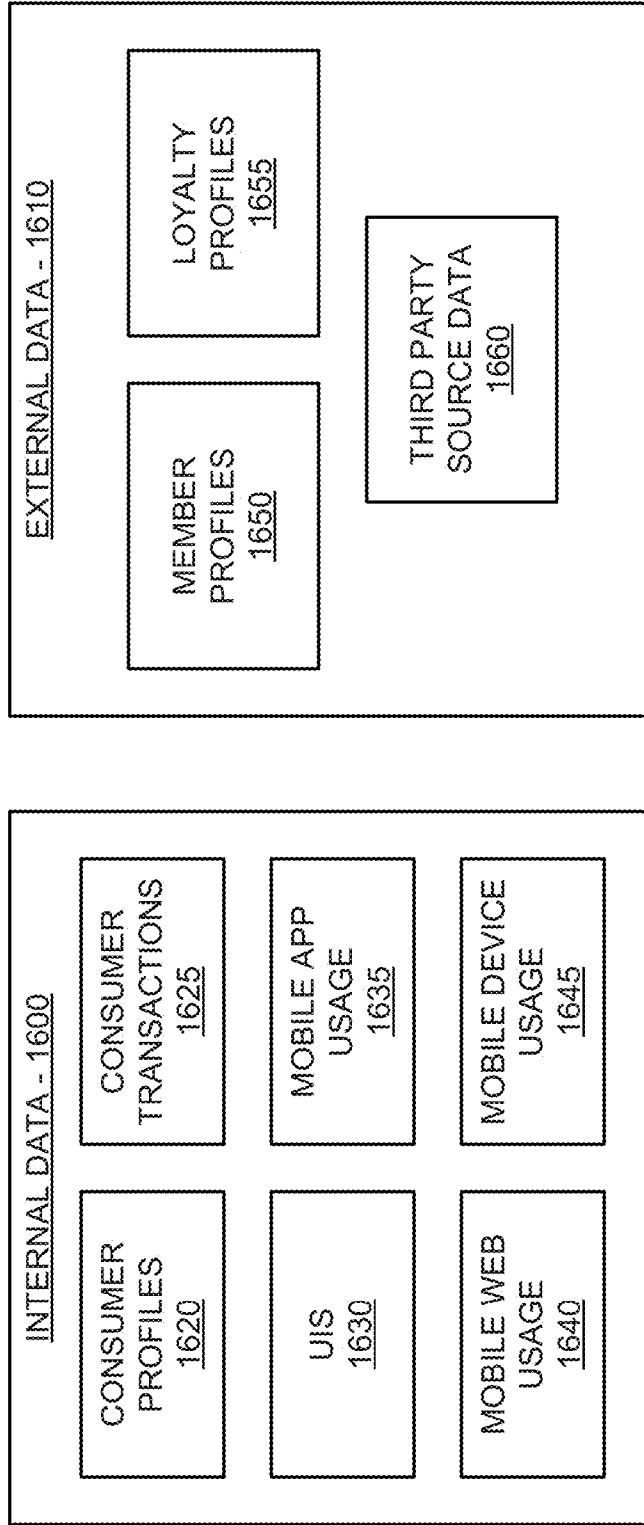


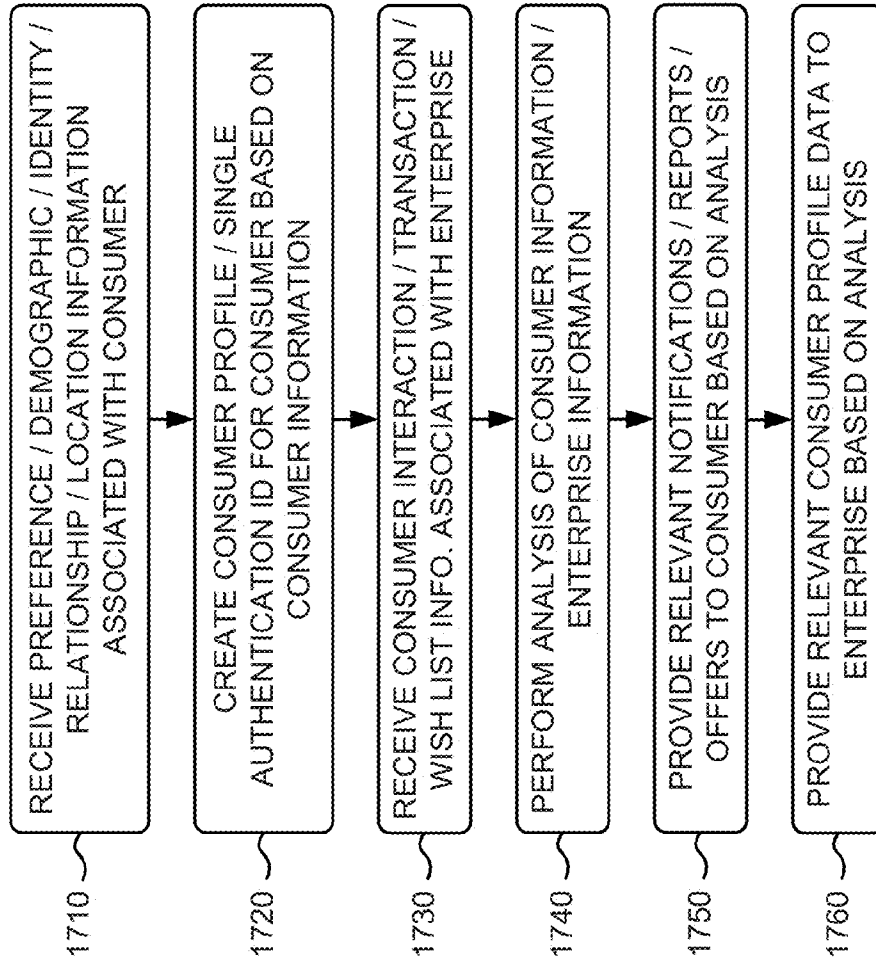
FIG. 16

970 →



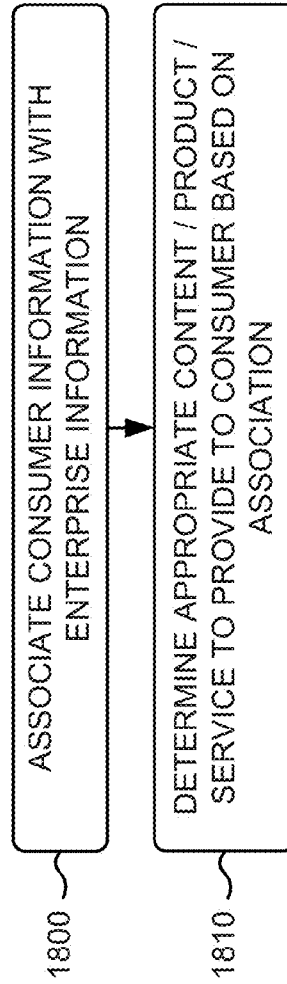
1700 →

FIG. 17



1740 →

FIG. 18



1900 →

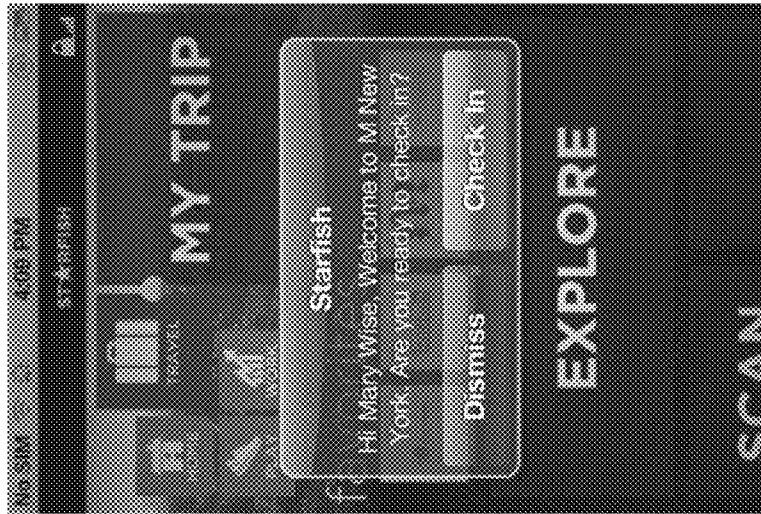


FIG. 19A

1910 →

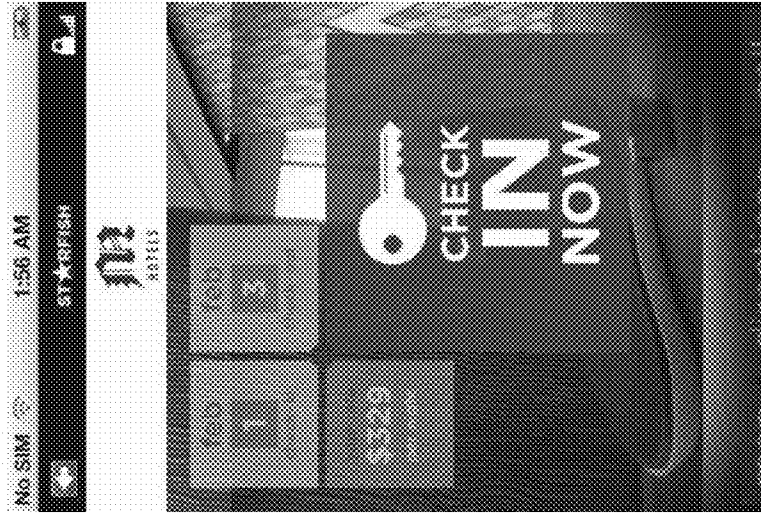


FIG. 19B

1920 →

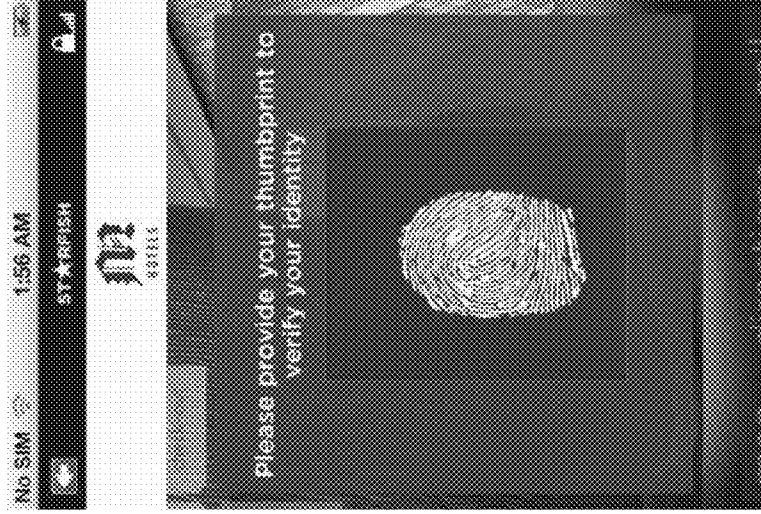


FIG. 19C

1930 →

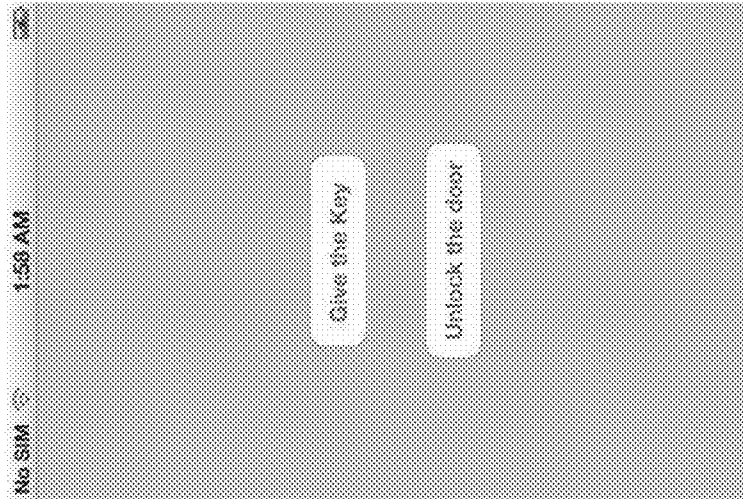


FIG. 19D

1940 →

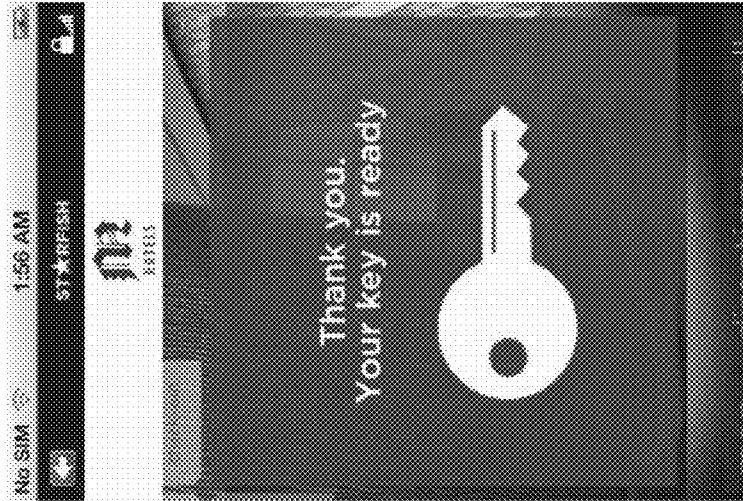


FIG. 19E

1950 →

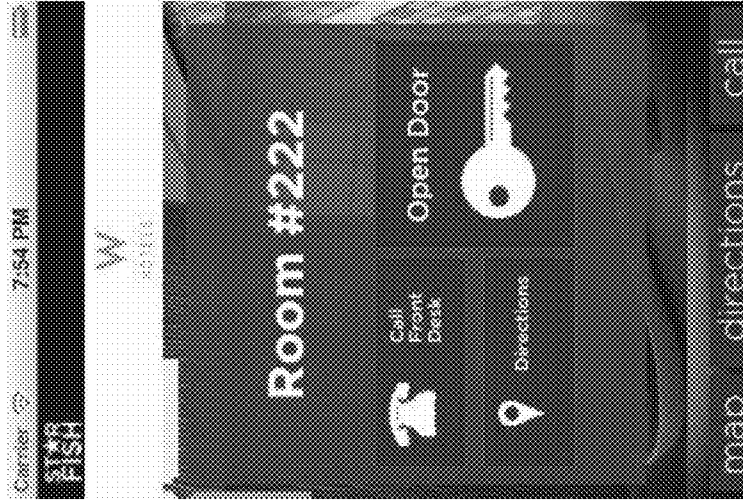


FIG. 19F

1970 →

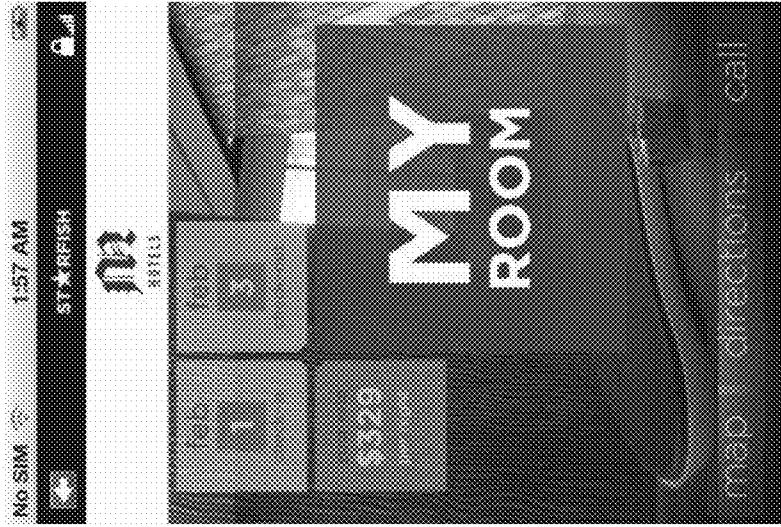


FIG. 19H

1960 →

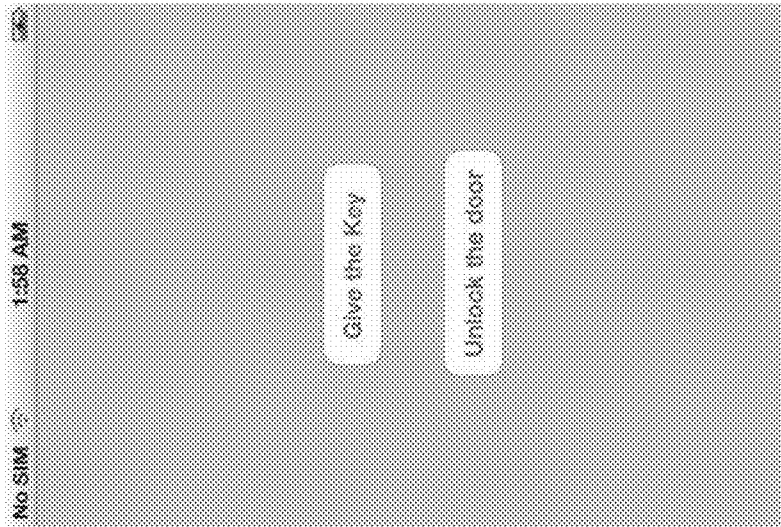


FIG. 19G

LIFESTYLE APPLICATION PLATFORM

RELATED APPLICATION

[0001] This application claims priority under 35 U.S.C. §119 based on U.S. Provisional Patent Application No. 61/581,916, filed Dec. 30, 2011, the disclosure of which is incorporated by reference herein in its entirety.

BACKGROUND

[0002] Consumers today utilize a variety of devices, such as desktop computers, smart phones, tablet computers, etc., to access online services (e.g., email applications, Internet services, television services, etc.), purchase products, services, and/or content online, and/or perform other online tasks. Information associated with the consumers (e.g., personal information, credit card numbers, etc.) may be shared with enterprises (e.g., businesses, government agencies, etc.) that provide such products, services, and/or content so that the consumers can access and interact with the enterprises in an efficient manner. However, many consumers do not permit such information to be shared with enterprises even when the enterprises may provide valuable products, services, and/or content to the consumers. One reason that consumers do not share their information is the fear that the information may be used for improper purposes, such as credit card theft, identity theft and fraud purposes, etc.

[0003] Enterprises are constantly trying to find out as much about consumers as possible so that such companies can market appropriate products, services, and/or content to the consumers. However, most enterprises know very little about the consumers of their products, services, and/or content. Until consumers permit their information to be readily shared with the enterprises, neither consumers nor the enterprises will benefit from the information.

[0004] Consumer concern about privacy (e.g., tracking, unexplained observation and aggregation of data, etc.) is high and may adversely impact many enterprises. A baseline of clear protections for consumers provides greater certainty for both consumers and enterprises. As envisioned, consumer rights may include individual control, transparency, respect for context, security, access and accuracy, focused collection of data, and accountability. Consumers may have the right to exercise control over what personal data enterprises collect from the consumers and how the enterprises use the personal data. Consumers may also have the right to expect that the personal data will be collected, used, and disclosed in ways that are consistent with a context in which the consumers provide the personal data.

[0005] Context-aware computing is the concept of leveraging context information about a consumer (e.g., utilizing a variety of devices) to improve a quality of an interaction with an enterprise. Context-aware computing may include a method by which new experiences are constructed that blend information from mobile, social, digital, and physical world sources.

BRIEF DESCRIPTION OF THE DRAWINGS

[0006] FIG. 1 is a diagram of an overview of an example implementation described herein;

[0007] FIG. 2 is a diagram of an example environment in which systems and/or methods described herein may be implemented;

[0008] FIG. 3 is a diagram of example components of a device that may correspond to one of the devices of the environment depicted in FIG. 2;

[0009] FIG. 4 is a diagram of example operations capable of being performed by an example portion of the environment in FIG. 2;

[0010] FIG. 5 is a diagram of example bank operations capable of being performed by an example portion of the environment in FIG. 2;

[0011] FIG. 6 is a diagram of example dress store operations capable of being performed by an example portion of the environment in FIG. 2;

[0012] FIG. 7 is a diagram of example car dealer operations capable of being performed by an example portion of the environment in FIG. 2;

[0013] FIG. 8 is a diagram of example hotel operations capable of being performed by an example portion of the environment in FIG. 2;

[0014] FIG. 9 is a diagram of example functional components of a lifestyle application platform of FIG. 2;

[0015] FIG. 10 is a diagram of example functional components of a consumer portal component of the lifestyle application platform;

[0016] FIG. 11 is a diagram of example functional components of a consumer services component of the lifestyle application platform;

[0017] FIG. 12 is a diagram of example functional components of an enterprise portal component of the lifestyle application platform;

[0018] FIG. 13 is a diagram of example functional components of an enterprise services component of the lifestyle application platform;

[0019] FIG. 14 is a diagram of example functional components of an analytics component of the lifestyle application platform;

[0020] FIG. 15 is a diagram of example functional components of a data integration component of the lifestyle application platform;

[0021] FIG. 16 is a diagram of example data that may be provided in a data sources component of the lifestyle application platform;

[0022] FIGS. 17 and 18 are flow charts of an example process for providing a lifestyle application platform according to an implementation described herein; and

[0023] FIGS. 19A-19H are diagrams of example user interfaces that may be generated or provided by a user device of FIG. 2.

DETAILED DESCRIPTION OF PREFERRED EMBODIMENTS

[0024] The following detailed description refers to the accompanying drawings. The same reference numbers in different drawings may identify the same or similar elements.

[0025] Systems and/or methods described herein may provide a lifestyle application platform (e.g., a contextual information services platform) that links identity, mobile, social, location, payment, and commerce services to anticipate a consumer's needs and to proactively recommend appropriate and customized products, services, and/or content to the consumer. The lifestyle application platform may enable the enterprises to deliver the right products, services, and/or content to consumers, may improve average revenue per unit (ARPU) for the enterprises, and may lower costs of consumer acquisition and retention. Consumers, via the lifestyle appli-

cation platform, may obtain more control over their personal information, may receive less unsolicited spam, and may be provided with simple and safe access (e.g., via a single authentication identification (ID)) to their favorite brands of products, services, and/or content.

[0026] The lifestyle application platform may integrate several services, such as, for example, identity services, mobile wallet services, marketing and analytics services, emerging strategic services, etc. The lifestyle application platform may provide, to consumers, a lifestyle application (app) (sometimes referred to as “Starfish”) that helps the consumers to locate and interact with their favorite brands wherever and whenever the consumers desire. The lifestyle application may link with online and physical experiences of the consumers. The lifestyle application may enable consumers to retain privacy, preferences, and control over their information; to receive relevant offers; to pay on-the-go for products, services, and/or content; and to be rewarded for their interactions with and loyalty to particular brands. Through the lifestyle application platform, the enterprises may grow, retain, and improve loyalty of their consumers, whether the consumers are on-line, mobile, or walking past a store.

[0027] FIG. 1 is a diagram of an overview of an example implementation described herein. As shown, a first user device, a second user device, a first enterprise device, a second enterprise device, and a lifestyle application platform may be interconnected. The first and second user devices may include a smart phone, a mobile telephone, a tablet computer, a desktop computer, a workstation computer, or other types of computation and communication devices. The first and second enterprise devices may include one or more server devices, or other types of computation and communication devices, that support products, services, and/or content provided by enterprises to consumers. The lifestyle application platform may include one or more server devices, or other types of computation and communication devices, that link identity, mobile, social, location, payment, and commerce services to anticipate consumers’ needs and to proactively recommend appropriate and customized products, services, and/or content to the consumers.

[0028] As further shown in FIG. 1, the first user device may be associated with a first consumer, and may receive first consumer information from the first consumer. The first consumer information may include brand preferences (e.g., for products, services, and/or content); demographic information (e.g., gender, race, age, etc.); identity information (e.g., anonymous identity, pseudonymous identity, legal identity, etc.); relationship information (e.g., relationships with other consumers); etc. associated with the first consumer. The first user device may add information to the first consumer information, such as location information (e.g., an Internet protocol (IP) address, global position system (GPS) coordinates, etc.) and/or capability information (e.g., a make, model, etc.) associated with the first user device. The first user device may provide the first consumer information to the lifestyle application platform.

[0029] The second user device may be associated with a second consumer, and may receive second consumer information from the second consumer. The second consumer information may include brand preferences, demographic information, identity information, relationship information, etc. associated with the second consumer. The second user device may add information to the second consumer information, such as location information and/or capability infor-

mation associated with the second user device. The second user device may provide the second consumer information to the lifestyle application platform.

[0030] The lifestyle application platform may receive the first consumer information, and may create a first consumer profile and a single authentication ID for the first consumer based on the first consumer information. The single authentication ID may include a password, a thumbprint, a voice command, a retinal scan, etc. associated with the first consumer. The lifestyle application platform may receive the second consumer information, and may create a second consumer profile and a single authentication ID for the second consumer based on the second consumer information. The single authentication ID may include a password, a thumbprint, a voice command, a retinal scan, etc. associated with the second consumer.

[0031] The first enterprise device may be associated with a first enterprise (e.g., a business, an organization, a government agency, etc.), and may provide first enterprise information to the lifestyle application platform. The first enterprise information may include offers for products, services, and/or content provided by the first enterprise; information associated with consumer interactions with the first enterprise (e.g., consumer profiles, consumer information gathered by the first enterprise, etc.); information associated with consumer transactions with the first enterprise; information associated with consumer wish lists for products, services, and/or content provided by the first enterprise; etc.

[0032] The second enterprise device may be associated with a second enterprise, and may provide second enterprise information to the lifestyle application platform. The second enterprise information may include offers for products, services, and/or content provided by the second enterprise; information associated with consumer interactions with the second enterprise; information associated with consumer transactions with the second enterprise; information associated with consumer wish lists for products, services, and/or content provided by the second enterprise; etc.

[0033] The lifestyle application platform may receive the first consumer information, the second consumer information, the first enterprise information, and the second enterprise information. The lifestyle application platform may analyze the received information, and may generate, from the first and second enterprise information, notifications, reports, offers, etc. for products, services, and/or content (e.g., provided by the first enterprise and/or the second enterprise) relevant to the first consumer and/or the second consumer based on the analysis. The lifestyle application platform may provide the notifications, reports, offers, etc. to the first user device and/or the second user device, which may display the notifications, reports, offers, etc. to the first consumer and/or the second consumer, respectively.

[0034] The lifestyle application platform may generate, from the first and second consumer information, consumer information (e.g., consumer profile data) relevant to the first enterprise and/or the second enterprise based on the analysis. The lifestyle application platform may provide the relevant consumer information to the first enterprise device and/or the second enterprise device, which may display the relevant consumer information to a user associated with the first enterprise and/or a user associated with the second enterprise, respectively.

[0035] As used herein, the terms “consumer” and “user” may be used interchangeably. Also, the terms “consumer”

and “user” are intended to be broadly interpreted to include a user device, or a user of a user device. The term “enterprise,” as used herein, is intended to be broadly interpreted to include a business, an organization, a government agency, an enterprise device, a user of an enterprise device, etc.

[0036] A “product,” as the term is used herein, is to be broadly interpreted to include anything that may be marketed or sold as a commodity or a good. For example, a product may include bread, coffee, bottled water, milk, soft drinks, pet food, beer, fuel, meat, fruit, automobiles, clothing, etc.

[0037] A “service,” as the term is used herein, is to be broadly interpreted to include any act or variety of work done for others (e.g., for compensation). For example, a service may include a repair service (e.g., for a product), a warranty (e.g., for a product), telecommunication services (e.g., telephone services, Internet services, network services, radio services, television services, video services, etc.), an automobile service (e.g., for selling automobiles), a food service (e.g., a restaurant), a banking service, a lodging service (e.g., a hotel), etc.

[0038] The term “content,” as used herein, is to be broadly interpreted to include video, audio, images, software downloads, and/or combinations of video, audio, images, and software downloads.

[0039] The term “component,” as used herein, is to be broadly construed to include hardware (e.g., a processor, a microprocessor, an application-specific integrated circuit (ASIC), a field-programmable gate array (FPGA), a chip, a memory device (e.g., a read only memory (ROM), a random access memory (RAM), etc.), etc.) or a combination of hardware and software (e.g., a processor, microprocessor, ASIC, etc. executing software contained in a memory device).

[0040] FIG. 2 is a diagram of an example environment 200 in which systems and/or methods described herein may be implemented. As illustrated, environment 200 may include a user device 210, an enterprise device 220, and a lifestyle application platform 230 connected by a network 240. The devices and/or the network of environment 200 may interconnect via wired and/or wireless connections.

[0041] User device 210 may include, for example, a radiotelephone; a personal communications system (PCS) terminal that may combine, for example, a cellular radiotelephone with data processing and data communications capabilities; a smart phone; a personal digital assistant (PDA) that may include, for example, one or more of a radiotelephone, a pager, Internet/intranet access, etc.; a laptop computer; a tablet computer; a desktop computer; a workstation computer; or other types of computation and communication devices. In one example, user device 210 may include a device that is capable of communicating with enterprise device 220 and/or lifestyle application platform 230 via network 240.

[0042] Enterprise device 220 may include one or more server devices, or other types of computation and communication devices, that gather, process, search, and/or provide information in a manner described herein. In one example implementation, enterprise device 220 may provide information associated with products, services, and/or content provided by an enterprise. For example, if the enterprise is a bank, enterprise device 220 may provide online banking services that enable consumers to perform transactions (e.g., deposits, withdrawals, etc.) with the bank; may provide electronic bank statements to consumers; may provide offers for services (e.g., loans, mortgages, etc.) to consumers; etc.

[0043] Lifestyle application platform 230 may include one or more server devices, or other types of computation and communication devices, that gather, process, search, and/or provide information in a manner described herein. In one example implementation, lifestyle application platform 230 may link identity, mobile, social, location, payment, commerce, etc. services to anticipate consumers’ needs and to proactively recommend appropriate and customized products, services, and/or content to the consumers.

[0044] Network 240 may include a local area network (LAN), a wide area network (WAN), a metropolitan area network (MAN), a telephone network, such as the Public Switched Telephone Network (PSTN), an intranet, the Internet, an optical fiber (or fiber optic) based network, or a combination of networks. In one example implementation, network 240 may include a network that connects user device 210, enterprise device 220, and lifestyle application platform 230.

[0045] Although FIG. 2 shows example devices/networks of environment 200, in other implementations, environment 200 may include fewer devices/networks, different devices/networks, differently arranged devices/networks, or additional devices/networks than depicted in FIG. 2. Alternatively, or additionally, one or more devices/networks of environment 200 may perform one or more other tasks described as being performed by one or more other devices/networks of environment 200.

[0046] FIG. 3 is a diagram of example components of a device 300 that may correspond to one or more devices of environment 200 (FIG. 2). In one example implementation, one or more of the devices of environment 200 may include one or more devices 300 and/or one or more components of device 300. As illustrated in FIG. 3, device 300 may include a bus 310, a processing unit 320, a memory 330, an input device 340, an output device 350, and a communication interface 360.

[0047] Bus 310 may permit communication among the components of device 300. Processing unit 320 may include one or more processors and/or microprocessors that interpret and execute instructions. In other implementations, processing unit 320 may be implemented as or include one or more ASICs, FPGAs, or the like.

[0048] Memory 330 may include a RAM or another type of dynamic storage device that stores information and instructions for execution by processing unit 320, a ROM or another type of static storage device that stores static information and instructions for the processing unit 320, and/or some other type of magnetic or optical recording medium and a corresponding drive for storing information and/or instructions.

[0049] Input device 340 may include a device that permits an operator to input information to device 300, such as a keyboard, a keypad, a mouse, a pen, a microphone, a touch screen display, one or more biometric mechanisms, or the like. Output device 350 may include a device that outputs information to the operator, such as a display, a speaker, etc.

[0050] Communication interface 360 may include any transceiver-like mechanism that enables device 300 to communicate with other devices and/or systems. For example, communication interface 360 may include mechanisms for communicating with other devices, such as other devices of environment 300.

[0051] As described herein, device 300 may perform certain operations in response to processing unit 320 executing software instructions contained in a computer-readable

medium, such as memory 330. A computer-readable medium may be defined as a non-transitory memory device. A memory device may include memory space within a single physical memory device or spread across multiple physical memory devices. The software instructions may be read into memory 330 from another computer-readable medium or from another device via communication interface 360. The software instructions contained in memory 330 may cause processing unit 320 to perform processes described herein. Alternatively, or additionally, hardwired circuitry may be used in place of or in combination with software instructions to implement processes described herein. Thus, implementations described herein are not limited to any specific combination of hardware circuitry and software.

[0052] Although FIG. 3 shows example components of device 300, in other implementations, device 300 may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 3. Alternatively, or additionally, one or more components of device 300 may perform one or more other tasks described as being performed by one or more other components of device 300.

[0053] FIG. 4 is a diagram of example operations capable of being performed by an example portion 400 of environment 200 (FIG. 2). As shown, environment portion 400 may include user device 210, enterprise device 220, and lifestyle application platform 230. User device 210, enterprise device 220, and lifestyle application platform 230 may include the features described above in connection with, for example, one or more of FIGS. 1-3.

[0054] A consumer may utilize user device 210 to connect to lifestyle application platform 230, and to download a lifestyle application from lifestyle application platform 230. The lifestyle application may be installed on user device 210, and may enable user device 210 to access and/or utilize the functionality provided by lifestyle application platform 230. For example, the lifestyle application may enable the consumer, via user device 210, to create, maintain, and/or update a consumer profile that is stored by lifestyle application platform 230. The consumer profile may be automatically updated by lifestyle application platform 230 based on the consumer's interactions with enterprise devices 220 via lifestyle application platform 230. The consumer profile may enable lifestyle application platform 230 to intelligently link information provided by the consumer and enterprises so that lifestyle application platform 230 may anticipate the consumer's needs and proactively recommend appropriate and customized products, services, and/or content to the consumer.

[0055] As further shown in FIG. 4, the consumer may provide consumer information 410 to user device 210. Consumer information 410 may include brand preferences (e.g., for products, services, and/or content); demographic information (e.g., gender, race, age, etc.); identity information (e.g., anonymous identity, pseudonymous identity, legal identity, etc.); relationship information (e.g., relationships with other consumers); etc. associated with the consumer. User device 210 may add information to consumer information 410, such as location information (e.g., an IP address, GPS coordinates, etc.) and/or capability information (e.g., a make, model, etc.) associated with user device 210.

[0056] Alternatively, or additionally, user device 210 may supplement information provided in consumer information 410. For example, user device 210 may supplement the relationship information by including information associated

with contacts of an address book stored on user device 210, consumer social network information, call logs information, messaging information, etc. in the relationship. User device 210 may supplement the identity information by including consumer purchase history information stored on user device 210, browsing history stored on user device 210, social network IDs of the consumer stored on user device 210, consumer user names and/or passwords, content downloaded to user device 210, etc. in the identity information.

[0057] The anonymous identity information may include information that may not identify the consumer. For example, the anonymous identity information may include a credit score associated with the consumer, a purchase history of the consumer, geo-location information associated with user device 210, a browsing history of the consumer, a propensity score associated with the consumer, an influence score associated with the consumer, etc. The pseudonymous identity information may include information that partially identifies the consumer. For example, the pseudonymous identity information may include personal data identified by the consumer (e.g., age, home address, etc.); consumer profile information (e.g., created by lifestyle application platform 230); consumer preferences for particular products, services, and/or content; consumer purchase intentions (e.g., a price range for a product, a specific type of product, etc.); social network IDs associated with the consumer; personas associated with the consumer; etc. The legal identity information may include information that completely identifies the consumer. For example, the legal identity information may include a full name of the consumer, contact information of the consumer, an IP address of user device 210, a driver's license number of the consumer, a social security number of the consumer, etc. The legal identity information may or may not include other sensitive information of the consumer, such as credit card numbers, medical information, account numbers, secret questions, passwords, personal identification numbers (PINs), etc. associated with the consumer. The consumer may have control over the information provided in customer information 410, and may opt-in or opt-out of the relationship with lifestyle application platform 230 at any time.

[0058] In one example implementation, lifestyle application platform 230 may enable the consumer to select a different type of identity information (e.g., anonymous, pseudonymous, or legal) to share with enterprises on an enterprise-by-enterprise basis, a transaction-by-transaction basis, each time user device 210 utilizes lifestyle application platform 230, etc. Further details of selecting different types of identity information are provided below in connection with, for example, FIGS. 5-7. As further shown in FIG. 4, user device 210 may provide consumer information 410 to lifestyle application platform 230.

[0059] Lifestyle application platform 230 may receive consumer information 410, and may create a consumer profile and a single authentication ID for the consumer based on consumer information 410. The single authentication ID may include a password, a thumbprint, a voice command, a retinal scan, etc. associated with the consumer. Lifestyle application platform 230 may enable user device 210 (e.g., via the lifestyle application) to access, view, and/or modify the consumer profile. The consumer may access the consumer profile and/or the functionality of lifestyle application platform 230 by providing (e.g., via user device 210) the single authentication ID to lifestyle application platform 230.

[0060] In one example, lifestyle application platform 230 may utilize the consumer's name, email address, telephone number, home address, etc. (e.g., provided in consumer information 410) to create the consumer profile. Lifestyle application platform 230 may associate a unique identifier (e.g., an alphabetical identifier, a numeric identifier, an alphanumeric identifier, etc.) with the consumer profile. Lifestyle application platform 230 may then populate the consumer profile with the brand preferences, enterprise preferences, relationship information, etc. provided by consumer information 410. Lifestyle application platform 230 may credit an appropriate amount of money to an electronic wallet associated with the consumer profile, and may award appropriate brand loyalty points (e.g., points that enable the consumer to receive benefits from enterprises) to the consumer profile.

[0061] Enterprise device 220 may be associated with an enterprise, and may provide enterprise information 420 to lifestyle application platform 230. Enterprise information 420 may include offers for products, services, and/or content provided by the enterprise; information associated with consumer interactions with the enterprise (e.g., consumer profiles, consumer information gathered by the enterprise, etc.); information associated with consumer transactions with the enterprise; information associated with consumer wish lists for products, services, and/or content provided by the enterprise; etc.

[0062] Lifestyle application platform 230 may receive enterprise information 420, and may analyze consumer information 410 and enterprise information 420. In one example implementation, lifestyle application platform 230 may compare consumer information 410 and enterprise information 420, and may determine whether any portion of consumer information 410 matches any portion of enterprise information 420. For example, if consumer information 410 indicates that the consumer is interested in a particular product offered by the enterprise, lifestyle application platform 230 may determine that information associated with the particular product should be provided to the consumer. Alternatively, or additionally, lifestyle application platform 230 may associate consumer information 410 with enterprise information 420 by comparing consumer information 410 with enterprise information 420. Lifestyle application platform 230 may determine an appropriate product, service, and/or content to provide to the consumer based on the association of consumer information 410 with enterprise information 420.

[0063] Based on the analysis, lifestyle application platform 230 may generate, from enterprise information 420, enterprise information 430 (e.g., notifications, reports, offers, etc. for products, services, and/or content provided by the enterprise) relevant to the consumer. Lifestyle application platform 230 may provide the relevant enterprise information 430 to user device 210, and user device 210 may display the relevant enterprise information 430 to the consumer.

[0064] Based on the analysis, lifestyle application platform 230 may generate, from consumer information 410, consumer information 440 (e.g., consumer profile data) relevant to the enterprise. Lifestyle application platform 230 may provide the relevant consumer information 440 to enterprise device 220, and enterprise device 220 may display the relevant consumer information 440 to a user associated with the enterprise. Alternatively, or additionally, enterprise device 220 may share the relevant consumer information 440 with

other enterprise devices 220, and/or may receive relevant consumer information 440 from the other enterprise devices 220.

[0065] Although FIG. 4 shows example components of environment portion 400, in other implementations, environment portion 400 may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 4. Additionally, or alternatively, one or more components of environment portion 400 may perform one or more other tasks described as being performed by one or more other components of environment portion 400.

[0066] FIG. 5 is a diagram of example bank operations capable of being performed by an example portion 500 of environment 200 (FIG. 2). As shown, environment portion 500 may include user device 210, a bank enterprise device 220, and lifestyle application platform 230. User device 210, bank enterprise device 220, and lifestyle application platform 230 may include the features described above in connection with, for example, one or more of FIGS. 1-4.

[0067] In the example of FIG. 5, assume that a consumer associated with user device 210 has utilized the lifestyle application to select legal identity information to share with a bank, associated with bank enterprise device 220, on a transaction-by-transaction basis. Thus, when the consumer (e.g., via user device 210) provides, to lifestyle application platform 230, a request 510 to move money from the consumer's account at the bank, lifestyle application platform 230 may retrieve legal identity information associated with the consumer. For example, lifestyle application platform 230 may retrieve, based on request 510, an account number, a name, a security code, and a social security number of the consumer, as indicated by reference number 520. Lifestyle application platform 230 may provide the account number, the name, the security code, and the social security number of the consumer to bank enterprise device 220.

[0068] Bank enterprise device 220 may determine whether the consumer is authorized to access the account number and to perform request 510 based on the information received from lifestyle application platform 230. If the consumer is authorized to access the account number and to perform request 510, bank enterprise device 220 may authenticate the consumer, and may provide, to lifestyle application platform 230, an indication 530 that the consumer is authenticated. Lifestyle application platform 230 may update the consumer profile based on receipt of indication 530 (e.g., to show that the consumer is authenticated by the bank). After authenticating the consumer, bank enterprise device 220 may perform the action (e.g., move money) requested by request 510, and may provide, to lifestyle application platform 230, an indication 540 that the requested action was performed (e.g., the money was moved). Lifestyle application platform 230 may receive indication 540, and may provide a confirmation 550, that the money was moved, to user device 210. User device 210 may display confirmation 550 to the consumer so that the consumer knows that the money was moved from the consumer's account at the bank.

[0069] Although FIG. 5 shows example components of environment portion 500, in other implementations, environment portion 500 may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 5. Additionally, or alternatively, one or more components of environment portion 500

may perform one or more other tasks described as being performed by one or more other components of environment portion 500.

[0070] FIG. 6 is a diagram of example dress store operations capable of being performed by an example portion 600 of environment 200 (FIG. 2). As shown, environment portion 600 may include two user devices 210, a dress store enterprise device 220, and lifestyle application platform 230. User devices 210, dress store enterprise device 220, and lifestyle application platform 230 may include the features described above in connection with, for example, one or more of FIGS. 1-5.

[0071] In the example of FIG. 6, assume that a wife associated with a first user device 210 has utilized the lifestyle application to select pseudonymous identity information to share with a dress store, associated with dress store enterprise device 220. The wife may cause the first user device 210 to provide information 610, such as, the wife's favorite dress store, the wife's favorite dress colors, the wife's dress size, etc., to lifestyle application platform 230. Lifestyle application platform 230 may receive and store the wife's information 610. However, the wife may not want anyone, besides the dress store, to know her actual dress size, so lifestyle application platform 230 may identify the wife's actual dress size as pseudonymous identity information that may be shared with the dress store but not with anyone else. Lifestyle application platform 230 may provide the wife's information 610 to dress store enterprise device 220.

[0072] As further shown in FIG. 6, a husband associated with a second user device 210 may cause the second user device 210 to provide information 620 to lifestyle application platform 230. In one example, the husband's information 620 may include relationship information indicating that the husband is married to the wife and that the husband may have access to certain information associated with the wife; information (e.g., a single authentication ID for the husband) that enables lifestyle application platform 230 to authenticate the husband; etc. The husband may cause the second user device 210 to provide, to lifestyle application platform 230, a request 630 to buy a dress for the wife. Lifestyle application platform 230 may receive the husband's information 620 and request 630, and may authenticate the husband based on the husband's information 620.

[0073] If lifestyle application platform 230 authenticates the husband, lifestyle application platform 230 may provide, to dress store enterprise device 220, request 630 and an indication 640 that the husband is authenticated. Dress store enterprise device 220 may receive the wife's information 610, request 630, and indication 640, and may provide the wife's dress preferences 650 to lifestyle application platform 230 based on the wife's information 610, request 630, and/or indication 640. The wife's dress preferences 650 may include the wife's favorite dress colors, the wife's dress size, the wife's favorite dresses, etc. Lifestyle application platform 230 may modify the wife's dress preferences 650 to eliminate any information that the wife does not want other consumers to know. For example, lifestyle application platform 230 may remove the wife's dress size from the wife's dress preferences 650, and may provide the wife's dress preferences 650 (e.g., without the wife's dress size) to the second user device 210. Alternatively, or additionally, the wife's dress preferences 650 may be stored by lifestyle application platform 230 (e.g., in a consumer profile associated with the wife), and lifestyle application platform 230 may provide the wife's dress pref-

erences 650 directly to the second user device 210, without interacting with dress store enterprise device 220.

[0074] The second user device 210 may display the wife's dress preferences 650 to the husband, and the husband may select and purchase a particular dress for the wife, as indicated by reference number 660. The second user device 210 may provide information 660 associated with the particular dress to lifestyle application platform 230, and lifestyle application platform 230 may provide information 660 to dress store enterprise device 220. Dress store enterprise device 220 may complete the purchase of the particular dress in the wife's correct dress size. The dress store may provide the particular dress, in the wife's dress size, to the wife, as indicated by reference number 670. Thus, the husband may purchase a dress for the wife without even knowing the wife's dress size.

[0075] Although FIG. 6 shows example components of environment portion 600, in other implementations, environment portion 600 may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 6. Additionally, or alternatively, one or more components of environment portion 600 may perform one or more other tasks described as being performed by one or more other components of environment portion 600.

[0076] FIG. 7 is a diagram of example car dealer operations capable of being performed by an example portion 700 of environment 200 (FIG. 2). As shown, environment portion 700 may include user device 210, two car dealer enterprise devices 220, and lifestyle application platform 230. User device 210, car dealer enterprise devices 220, and lifestyle application platform 230 may include the features described above in connection with, for example, one or more of FIGS. 1-6.

[0077] In the example of FIG. 7, assume that a consumer associated with user device 210 has utilized the lifestyle application to select anonymous identity information to share with car dealers, associated with car dealer enterprise devices 220. Thus, when the consumer (e.g., via user device 210) provides, to lifestyle application platform 230, a wish list 710 for a type of car within a price range, lifestyle application platform 230 may retrieve anonymous identity information associated with the consumer. For example, lifestyle application platform 230 may generate an anonymous request 720 based on wish list 710. Anonymous request 720 may include information that may not identify the consumer (e.g., a credit score associated with the consumer) and the information provided in wish list 710. Lifestyle application platform 230 may provide anonymous request 720 to one or more car dealer enterprise devices 220. Thus, the consumer may attempt to locate the type of car within the price range without revealing the identity of the consumer. Such an arrangement may prevent user device 210 and the consumer from receiving unwanted solicitations from the car dealers.

[0078] Car dealer enterprise devices 220 may receive anonymous request 720, and the car dealers may determine whether to respond to anonymous request 720. For example, the first car dealer may not respond to anonymous request 720, as indicated by reference number 730, if the first car dealer does not have the requested car in the requested price range. However, the second car dealer may respond to anonymous request 720 since the second car dealer may have the requested car in the requested price range. Accordingly, the second car dealer enterprise device 220-2 may provide an

offer **740** for the type of car to lifestyle application platform **230**. Lifestyle application platform **230** may provide offer **740** to user device **210**, and user device **210** may display offer **740** to the consumer. If the consumer wishes to pursue offer **740**, the consumer may utilize user device **210** to interact with lifestyle application platform **230** and/or the second car dealer enterprise device **220-2**. Such interactions may include the consumer revealing further identity information (e.g., a name, an address, etc.) so that the consumer may complete the transaction.

[**0079**] Although FIG. 7 shows example components of environment portion **700**, in other implementations, environment portion **700** may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 7. Additionally, or alternatively, one or more components of environment portion **700** may perform one or more other tasks described as being performed by one or more other components of environment portion **700**.

[**0080**] FIG. 8 is a diagram of example hotel operations capable of being performed by an example portion **800** of environment **200** (FIG. 2). As shown, environment portion **800** may include user device **210**, a hotel enterprise device **220**, and lifestyle application platform **230**. User device **210**, hotel enterprise device **220**, and lifestyle application platform **230** may include the features described above in connection with, for example, one or more of FIGS. 1-7.

[**0081**] With reference to FIG. 8, a consumer associated with user device **210** may arrive at an airport, and may enter a taxi at the airport. The consumer may be taking the taxi to a hotel where the consumer previously booked a reservation via the lifestyle application. When the taxi approaches the hotel (e.g., within a certain number of miles), user device **210** may provide location information **810** (e.g., indicating that the consumer is near the hotel) to lifestyle application platform **230**. Alternatively, or additionally, user device **210** may continuously provide location information **810** associated with user device **210** to lifestyle application platform **230**. Lifestyle application platform **230** may receive location information **810**, and may determine that the consumer is near the hotel based on location information **810**.

[**0082**] When lifestyle application platform **230** determines that the consumer is near the hotel, lifestyle application platform **230** may provide a notification **820** to user device **210**, and user device **210** may display notification **820** to the consumer. As shown in FIG. 8, notification **820** may include information querying whether the consumer wants to check into the hotel. If the consumer selects "Yes" to notification **820**, user device **210** may provide, to lifestyle application platform **230**, a request **830** to check into the hotel. Based on request **830**, lifestyle application platform **230** may locate the consumer's hotel reservation information (e.g., stored in the lifestyle application platform **230**), and may provide a check in request **840** to hotel enterprise device **220** based on the hotel reservation information. Check in request **840** may include the consumer's hotel reservation information.

[**0083**] Hotel enterprise device **220** may receive check in request **840**, and may provide a check in confirmation **850** to lifestyle application platform **230** based on check in request **840**. Check in confirmation **850** may include a request for authentication of the consumer, an electronic hotel room key, a hotel room number, etc. Lifestyle application platform **230** may provide check in confirmation **850** to user device **210**, and user device **210** may display check in confirmation **850** to

the consumer. The consumer may further utilize user device **210** to interact with lifestyle application platform **230** and hotel enterprise device **220** so that the consumer may complete checking into the hotel.

[**0084**] Although FIG. 8 shows example components of environment portion **800**, in other implementations, environment portion **800** may include fewer components, different components, differently arranged components, or additional components than depicted in FIG. 8. Additionally, or alternatively, one or more components of environment portion **800** may perform one or more other tasks described as being performed by one or more other components of environment portion **800**.

[**0085**] FIG. 9 is a diagram of example functional components of lifestyle application platform **230**. In one implementation, the functions described in connection with FIG. 9 may be performed by one or more components of device **300** (FIG. 3) or by one or more devices **300**. As shown in FIG. 9, lifestyle application platform **230** may include a consumer portal component **900**, a consumer services component **910**, an enterprise portal component **920**, an enterprise services component **930**, an analytics component **940**, a data management component **950**, a data integration component **960**, a data sources component **970**, and an application/system integration component **980**.

[**0086**] Consumer portal component **900** may provide consumers (e.g., via user devices **210**) with access to lifestyle application platform **230**. In one example, consumer portal component **900** may provide a consumer interface (e.g., a consumer dashboard) that may be accessible via the lifestyle application provided on a user device **210**, a web browser, etc. The consumer interface may trigger events when the consumer interacts with various technologies available to user device **210** (e.g., near field communication (NFC), GPS, etc.); may support a customized dashboard for the consumer; and may permit the consumer to contact another consumer (e.g., in a social group) directly through lifestyle application platform **230**, via short message service (SMS), via a phone call, etc. In one example, the consumer interface may include a consumer profile control panel and a consumer relationship control panel that provide full functionality of lifestyle application platform **230** to consumers that have been authenticated.

[**0087**] Consumer portal component **900** may provide identity-related functions, such as consumer registration, consumer identity proofing, credential issuance to the consumer, authentication of the consumer, etc. Consumer portal component **900** may interface with a variety of access technologies, such as NFC, SMS, unstructured supplementary service data (USSD), web portal, mobile application, active radio-frequency identification (RFID), geo-location, digital signs, quick response (QR) codes, interactive voice response (IVR), etc. Consumer portal component **900** may support open application programming interfaces (APIs), and may support trusted service manager (TSM) capabilities for over the air (OTA) download and management of subscriber identity module (SIM) applications on mobile devices. Consumer portal component **900** may capture the consumer's geo-location via various technologies, such as GPS, WiFi, IP address, cellular tower, femtocell, etc.

[**0088**] Consumer portal component **900** may provide consumer login and authentication functionality. For example, consumer portal component **900** may not require login authentication for all consumer activities within lifestyle

application platform **230**. If an activity requires a consumer to login to perform the activity, consumer portal component **900** may present an authentication challenge to the consumer. When a consumer successfully completes the authentication challenge, consumer portal component **900** may return the consumer to the activity that prompted the need for login. Consumer portal component **900** may support a strong, two-factor authentication as a default for a consumer to access restricted activities. Consumer portal component **900** may support a web single sign on (SSO) authentication for accessing enterprise devices **220**.

[0089] Consumer services component **910** may provide consumer services offered by lifestyle application platform **230**. For example, consumer services component **910** may provide profile management services, relationship management services, identity tracking services, offer services, loyalty services, payment services, web SSO services, etc. The profile management services may enable a consumer to create, review, and/or edit a profile associated with the consumer. The relationship management services may enable a consumer to set preferences for and manage preferred brands of the consumer; offers for products, services, and/or content provided by enterprises; loyalty programs provided by enterprises; and consumer digital payment services. The identity tracking services may enable a consumer to receive alerts regarding potential identity theft, and to receive reports on how their identity has been used. The offer services may enable a consumer to manage offers (e.g., coupons, referrals, etc.) for products, services, and/or content provided by enterprises. The loyalty services may enable a consumer to manage loyalty programs provided by enterprises. The payment services may enable a consumer to manage digital payment services offered to the consumer. The web SSO services may enable the consumer to manage consumer access to enterprise devices **220**.

[0090] Enterprise portal component **920** may provide enterprises (e.g., via enterprise devices **220**) with access to lifestyle application platform **230**. In one example, enterprise portal component **920** may provide an enterprise interface (e.g., an enterprise dashboard) that may be accessible by enterprise device **220** via a secure web browser or some other mechanism. Enterprise portal component **920** may support role-based access for various enterprise user roles, such as an enterprise security administrator, an enterprise marketing administrator, an enterprise approving authority, an enterprise coordinator, an enterprise help desk, etc. At initial login, enterprise portal component **920** may present an enterprise user with an authentication challenge. Upon successfully completing the authentication challenge, the enterprise user may have access to the enterprise interface. Enterprise portal component **920** may support strong, two-factor authentication as a default for an enterprise user to access the enterprise interface.

[0091] Enterprise services component **930** may provide enterprise services offered by lifestyle application platform **230**. For example, enterprise services component **930** may provide enterprise payment services, data exchange and processing services, profile procurement services, enterprise database maintenance services, coupon management services, referral management services, loyalty program management services, preference-based targeting tools, transaction-based consumer value forecasting, fraud prevention, etc. The enterprise payment services may enable an enterprise to manage payments to or from partner enterprises. The data

exchange and processing services may enable an enterprise to schedule and manage data processing activities. The profile procurement services may enable an enterprise to procure consumer profile information from partner enterprises. The enterprise database maintenance services may enable an enterprise to manage and update internal database attributes. The coupon management services may enable an enterprise to create, manage, delete, etc. one or more coupons for consumers. The referral management services may enable an enterprise to manage referral partnerships with partner enterprises. The loyalty program management services may enable an enterprise to manage loyalty programs provided to consumers. The preference-based targeting tools may enable an enterprise to manage consumer targeting services. The transaction-based consumer value forecasting may enable an enterprise to specify market analytics report parameters and request market analytics reports. Fraud prevention may enable an enterprise to set security preferences for enterprise partners.

[0092] Analytics component **940** may enable lifestyle application platform **230** to analyze, data mine, model, segment, etc. data (e.g., consumer information **410** and/or enterprise information **420**, FIG. 4). Analytics component **940** may create calculations, algorithms, etc. used by data integration component **960**. Analytics component **940** may utilize the analytically-produced data to provide reports, interfaces, etc. used by consumer portal component **900** and/or enterprise portal component **920**.

[0093] Data management component **950** may receive and store data for lifestyle application platform **230**. The data may include internal data (e.g., consumer information **410** and/or enterprise information **420**, FIG. 4) and external data. The external data may be provided by third parties to lifestyle application platform **230** and may include marketing reports, consumer information, sales reports for products, services, and/or content, etc. In one example, data management component **950** may store the data in a data warehouse or some other type of data structure.

[0094] Data integration component **960** may manage integration of data stored by lifestyle application platform **230** in data sources component **970**. In one example, data integration component **960** may manage the integration of data across data sources, databases, etc. by applying rules and/or processes to ensure that the data is processed correctly. Data integration component **960** may integrate the data by converting the data to metadata, enriching the data, transforming the data, aggregating the data, performing ETL (extracting, transforming, and loading) on the data, cleansing the data, validating the data, harmonizing the data, etc.

[0095] Data sources component **970** may store data received by lifestyle application platform **230**. In one example, data sources component **970** may store internal data and external data. The internal data may include consumer profiles, consumer transactions information, universal identity services (UIS) information, usage information associated with the lifestyle application, information associated with web usage by user devices **210**, information associated with usage of user devices **210**, etc. The external data may include enterprise profile information, consumer loyalty profiles, third party source data, etc.

[0096] Application/system integration component **980** may provide functionality to lifestyle application platform **230** and may control capabilities of lifestyle application platform **230**. Application/system integration component **980**

may provide web services and tools that leverage functionality and data stored in systems outside of lifestyle application platform 230. In one example, application/system integration component 980 may provide a rules-oriented infrastructure of policies and business rules that govern how enterprises interact with each other. Application/system integration component 980 may create, update, and manage enterprise information, enterprise profiles, enterprise accounts, etc. Application/system integration component 980 may create, update, and manage programs, such as coupon services, referral services, loyalty program services, digital payment services, etc.

[0097] Although FIG. 9 shows example functional components of lifestyle application platform 230, in other implementations, lifestyle application platform 230 may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 9. Additionally, or alternatively, one or more functional components of lifestyle application platform 230 may perform one or more other tasks described as being performed by one or more other functional components of lifestyle application platform 230.

[0098] FIG. 10 is a diagram of example functional components of consumer portal component 900 (FIG. 9). In one implementation, the functions described in connection with FIG. 10 may be performed by one or more components of device 300 (FIG. 3) or by one or more devices 300. As shown in FIG. 10, consumer portal component 900 may include a profile control panel component 1000 and a relationship control panel component 1010.

[0099] Profile control panel component 1000 may support creation of consumer profiles via consumer manual entry of profile data (e.g., with user device 210), enterprise devices 220 bulk loading of multiple consumer profiles, lifestyle application platform 230 bulk loading of multiple consumer profiles, etc. Profile control panel component 1000 may enable a consumer to review and/or edit profile data, and may enforce rules for which profile data fields are required and optional. Profile control panel component 1000 may enable a consumer to confirm and submit profile data, and may return error messages to the consumer when fields are inappropriately populated or incomplete. Profile control panel component 1000 may send consumer profile data to UIS so that the UIS may create or append a UIS profile for enrollment and credentialing.

[0100] In one example, profile control panel component 1000 may provide a privacy management service to a consumer. The privacy management service may support a privacy setting matrix with respect to data defined by data usage, data type, whether a consumer has the option to opt-in/opt-out, etc. The privacy matrix may define a data framework to which business rules may be applied. The privacy management service may include default privacy settings as defined by lifestyle application platform 230, and may not permit a consumer to set privacy settings until after the consumer profile is created. The privacy management service may enable a consumer to prohibit use of qualifying data types. The data usage activities may include utilizing consumer profile data for telemarketing, marketing emails, marketing postal mail, online advertising, wireless location services, geographic and relevant mobile advertising, business and marketing reports, etc. The data types may include anonymous, aggregate, pseudonymous, personally identifiable, sensitive, etc. data types.

[0101] The privacy management service may enable a consumer to select a method (e.g. email, text message, intra-system communications, etc.) by which lifestyle communication platform 230 communicates information to consumer. The privacy management service may enable a consumer to save privacy settings as a privacy template, and/or to make a single selection from multiple pre-defined privacy templates.

[0102] Relationship control panel component 1010 may enable a consumer to create, edit, and manage relationships with enterprises and/or other consumers. Relationship control panel component 1010 may enable a consumer to control and set preferences for program management services, offer services, loyalty services, digital payment services, etc. provided by lifestyle application platform 230. Lifestyle application platform 230 may prioritize marketing channel settings in the relationship control panel component 1010 over global privacy settings in profile control panel component 1000 if a change to the settings has been confirmed. Relationship control panel component 1010 may enable a consumer to order a product, a service, and/or content, and may tie together a stream of operations in a way that appears as one seamless transaction to the consumer, such as placing an order, redeeming an applicable offer, making a payment, receiving a loyalty program reward credit, etc.

[0103] In one example, relationship control panel component 1010 may support program management services. The program management services may enable a consumer to view and set preference or “like” settings associated with enterprises, product/service brands, product/service types, data usage, contact frequency, access method (e.g., anonymous access, web SSO, etc.), etc. Lifestyle application platform 230 may import consumer transactional data from enterprises and other third party data sources to pre-populate the program management preference settings not provided by the consumer. The program management service may enable a consumer to specify how the consumer’s preferences are populated within lifestyle application platform 230 (e.g., via manual entry, import from a third party source, based on transactional behavior within lifestyle application platform 230, etc.).

[0104] The program management service may enable a consumer to associate other consumers into a social group, and may enable the consumer to define their relationship categories for the other consumers in the social group (e.g., as acquaintances, friends, family members, colleagues, a spouse, etc.). The program management service may import or retrieve relationship categories from sources outside lifestyle application platform 230, such as from a user device 210 operating system, third party applications, third party social media, etc. The program management service may enable a consumer to define sharing rights for a relationship category, and may store preference settings for the other consumers in the social group. The program management service may provide the preference settings for the other consumers in the social group to enterprises, and may provide the preference settings for other consumers in the social group to another consumer. The program management service may enable a consumer to exchange preferences within the social group remotely, via physical interaction, etc.

[0105] Although FIG. 10 shows example functional components of consumer portal component 900, in other implementations, consumer portal component 900 may include fewer functional components, different functional components, differently arranged functional components, or addi-

tional functional components than depicted in FIG. 10. Additionally, or alternatively, one or more functional components of consumer portal component 900 may perform one or more other tasks described as being performed by one or more other functional components of consumer portal component 900.

[0106] FIG. 11 is a diagram of example functional components of consumer services component 910. In one implementation, the functions described in connection with FIG. 11 may be performed by one or more components of device 300 (FIG. 3) or by one or more devices 300. As shown in FIG. 11, consumer services component 910 may include a profile management component 1100, a relationship management component 1110, an identity tracking component 1120, an offers component 1130, a loyalty component 1140, a payment component 1150, and a web SSO component 1160.

[0107] Profile management component 1100 may enable lifestyle application platform 230 to provide consumer profile management services to consumers. Profile management component 1100 may enable consumers to create consumer profiles via consumer manual entry of profile data (e.g., with user device 210), enterprise devices 220 bulk loading of multiple consumer profiles, lifestyle application platform 230 bulk loading of multiple consumer profiles, etc. Profile management component 1100 may enable a consumer to review and/or edit profile data, and may enforce rules for which profile data fields are required and optional. Profile management component 1100 may enable a consumer to confirm and submit profile data, and may return error messages to the consumer when fields are inappropriately populated or incomplete. Profile management component 1100 may send consumer profile data to a UIS so that the UIS may create or append a UIS profile for enrollment and credentialing.

[0108] Relationship management component 1110 may enable a consumer to create, edit, and manage relationships with enterprises and/or other consumers. Relationship management component 1110 may enable a consumer to control and set preferences for program management services, offer services, loyalty services, digital payment services, etc. provided by lifestyle application platform 230. Relationship management component 1110 may provide program management services described above. For example, the program management services may enable a consumer to view and set preference settings associated with enterprises, product/service brands, product/service types, data usage, contact frequency, access method (e.g., anonymous access, Web SSO, etc.), etc.

[0109] Identity tracking component 1120 may send alerts to a consumer via the consumer's preset communication channels. The alerts may alert the consumer about a potential compromise of the consumer's identity based on triggers from the UIS. Identity tracking component 1120 may provide consumer account monitoring, and may provide a composite, activity-based view of account usage. Identity tracking component 1120 may provide an interface for a consumer to specify and receive reports on how the consumer's identity has been used.

[0110] Offers component 1130 may enable a consumer to manage offers, such as coupons, referrals, future offer-based program types, etc. A coupon may include an offer name, an offer description, an offer code, an offer workflow, a product, a service, an automatically-enrolled new consumer, a number of offers on enroll, a maximum number of offers, timing of the offer, a location of the offer, etc. Offers component 1130 may enable a consumer to search offers, sort offers, and/or set

interface preferences regarding how the consumer searches, sorts, and interacts with offers. Offers component 1130 may enable a consumer to automatically redeem an offer based on consumer-defined qualifications, and may support dynamic, manual redemption of offers, at a time of a transaction.

[0111] Loyalty component 1140 may enable a consumer to set preference settings for loyalty programs with enterprises. The preference settings may include method of contact (e.g., email, mail, telemarketing, text message, etc.), contact frequency, authentication method, etc. Lifestyle application platform 230 may import loyalty programs information (e.g., from enterprises and/or third parties), for a specific consumer, into loyalty component 1140. Loyalty component 1140 may enable a consumer to specify qualifications by which stored loyalty rewards points are used, such as by product category, brand, enterprise, location, offer attributes, price, cumulative savings, manual/automated selection, etc. Loyalty component 1140 may enable a consumer to search loyalty program information, sort loyalty program information, and/or set interface preferences regarding how the consumer searches, sorts, and interacts with loyalty programs.

[0112] Loyalty component 1140 may enable a consumer to redeem loyalty rewards points automatically based on consumer-defined qualifications, and may support dynamic, manual redemption of loyalty rewards points, at a time of a transaction. Loyalty component 1140 may enable enterprises to communicate, to consumer loyalty program members, warranties, rebates, recall notices, surveys, product registrations, reviews, etc. Loyalty component 1140 may communicate with outside institutions to capture payment transactions by a consumer and to credit rewards to the consumer. Loyalty component 1140 may award loyalty rewards to consumers based on non-purchase transactions.

[0113] Payment component 1150 may import consumer payment information, such as credit card information, debit card information, coupon information, voucher information, etc. Payment component 1150 may perform pre-authorization functions for digital payment transactions, and may enable a consumer to make a hybrid payment from digital payment, offers, and loyalty program rewards points based on consumer-defined qualifications. Upon completion of a payment, payment component 1150 may remove an offer from a consumer's offers service, debit a consumer's loyalty program rewards account, debit a consumer's digital payment account, etc. Payment component 1150 may enable a consumer to specify qualifications by which payment methods are used, such as by product category, brand, enterprise, location, offer attributes, price, cumulative savings, manual/automated selection, hybrid payments, etc.

[0114] Payment component 1150 may capture a payment account transaction, for all purchases, in the form of a digital equivalent of a receipt, and may enable an enterprise to attach an offer to a digital receipt. Payment component 1150 may enable a consumer to search payment account transactions, sort payment account transactions, and/or set interface preferences regarding how the consumer searches, sorts, and interacts with payment method accounts. Payment component 1150 may enable a consumer to make payments via specified payment methods based on consumer-defined qualifications, and may support dynamic, manual selection of a payment method, at a time of a transaction.

[0115] Payment component 1150 may enable a consumer to replenish an account balance (e.g., via funds from an account outside lifestyle application platform 230), debit an

account balance (e.g., return funds to an account outside lifestyle application platform 230), and/or request a refund from an enterprise. Payment component 1150 may advise a consumer on the success or failure of a payment, and may provide an e-commerce data conduit with a financial institution (e.g. a bank, a credit card provider, etc.) that shares consumer e-payment data. Payment component 1150 may store a real-time transaction linkage to an institution with up-to-date balance information.

[0116] Web SSO component 1160 may enable a consumer to access enterprise devices 220 via web SSO, one-time SSO, anonymous access, etc. Web SSO component 1160 may provide consumer access to enterprise devices 220 at an authentication level specified by an enterprise or by the consumer for the enterprise. With regard to web SSO, web SSO component 1160 may provide a consumer with web SSO access to enterprise devices 220 if specifically allowed by the enterprise. The consumer, when accessing enterprise devices 220 via web SSO access, may be authenticated and recognized by enterprise devices 220. With regard to one-time SSO, web SSO component 1160 may request a consumer to confirm one-time SSO when accessing enterprise devices 220. Web SSO component 1160 may permit one-time SSO access to enterprise devices 220 if specifically allowed by the enterprise. The consumer, when accessing enterprise devices 220 via one-time SSO access, may be authenticated and recognized by enterprise devices 220. Web SSO component 1160 may redirect a consumer, when using anonymous access to enterprise devices 220, to a public landing page provided by enterprise devices 220.

[0117] Although FIG. 11 shows example functional components of consumer services component 910, in other implementations, consumer services component 910 may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 11. Additionally, or alternatively, one or more functional components of consumer services component 910 may perform one or more other tasks described as being performed by one or more other functional components of consumer services component 910.

[0118] FIG. 12 is a diagram of example functional components of enterprise portal component 920 of lifestyle application platform 230 (FIG. 2). In one implementation, the functions described in connection with FIG. 12 may be performed by one or more components of device 300 (FIG. 3) or by one or more devices 300. As shown in FIG. 12, enterprise portal component 920 may include an enterprise settings control panel component 1200, an enterprise payment control panel component 1210, an enterprise profile control panel component 1220, an enterprise campaign control panel component 1230, an enterprise marketing analytics control panel component 1240, an enterprise help desk control panel component 1250, and an enterprise security control panel component 1260.

[0119] Enterprise settings control panel component 1200 may enable an enterprise to restrict/enable data exchange with another enterprise, and define and manage the enterprise's locations, the enterprise's association with offer/loyalty programs, the enterprise's customer association with the offer/loyalty programs, etc. Enterprise settings control panel component 1200 may enable an enterprise to restrict or enable data sharing privileges with another enterprise, and may provide restricted data element sharing between enter-

prises for profile procurement, referral, analytics, etc. exchanges. Enterprise settings control panel component 1200 may enable an enterprise to define one or multiple enterprise locations that may interact with consumers, and to retrieve enterprise locations, update enterprise locations, delete enterprise locations, etc.

[0120] Enterprise settings control panel component 1200 may enable an enterprise to define one or more programs, retrieve programs, update programs, etc. The programs may include coupon services, loyalty program services, referral services, digital payment services, etc. Enterprise settings control panel component 1200 may enable an enterprise to associate the enterprise with one or more programs, retrieve the associated programs, create associated programs, delete associated programs, etc. Enterprise settings control panel component 1200 may enable an enterprise to associate one or more consumers with a program (e.g., subject to the consumer's approval), retrieve the associated consumer programs, create associated consumer programs, delete associated consumer programs, etc.

[0121] Enterprise settings control panel component 1200 may enable an enterprise to define one or more workflows that dictate how an action within lifestyle application platform 230 is triggered by an event. Enterprise settings control panel component 1200 may enable an enterprise to retrieve workflows, update workflows, obtain specifications for workflows, update the specifications for workflows, etc. Enterprise settings control panel component 1200 may enable an enterprise to define settings that require confirmation of the enterprise for certain marketing activities. The marketing activities may include profile procurement requests, profile procurement request acceptance, coupon publication approval, referral requests, referral request acceptance, loyalty program publication approval, etc. Enterprise settings control panel component 1200 may enable an enterprise to customize and limit the enterprise dashboard functionality.

[0122] Enterprise payment control panel component 1210 may enable an enterprise to replenish the enterprise's accounts balance; debit the enterprise's accounts balance; view, search, and sort the enterprise's payments; set interface settings; request a refund for a payment; track collection status of marketing exchange fees; etc. Enterprise payment control panel component 1210 may enable various payment methods (e.g., credit card, debit card, automated clearing house (ACH) transactions, etc.) to be imported for an enterprise, and may enable an enterprise to replenish the enterprise's account balance (e.g., via funds from an account outside of lifestyle application platform 230). Enterprise payment control panel component 1210 may enable an enterprise to debit the enterprise's account balance (e.g., returning funds to an account outside of lifestyle application platform 230), and may capture a payment account transaction, for all purchases, in the form of a digital equivalent of a receipt.

[0123] Enterprise payment control panel component 1210 may enable an enterprise to search payment account transactions, sort payment account transactions, set interface preferences regarding how the enterprise searches, sorts, and interacts with payment method accounts, etc. Enterprise payment control panel component 1210 may enable an enterprise to request a refund from lifestyle application platform 230, and may notify an enterprise about a success or a failure of a payment. Enterprise payment control panel component 1210 may provide an e-commerce data conduit with a financial institution (e.g. a bank, a credit card provider, etc.) that shares

an enterprise's e-payment data. Enterprise payment control panel component **1210** may provide a method for tracking all agreed upon fees for consumer data record exchange, as well as a collection status of those fees.

[0124] Enterprise profile control panel component **1220** may provide role-based access and operation rights for an enterprise to data exchange and processing services, profile procurement services, enterprise database maintenance services, etc. Enterprise profile control panel component **1220** may compile a list of consumer data records based on data element criteria and selectivity, may differentiate between opt-in and opt-out consumer data records, and may suppress or select those records as specified by particular rules. Enterprise profile control panel component **1220** may suppress records for marketing campaigns that do not meet a consumer's frequency preferences, and may support receipt of data files from third party sources (e.g., enterprise partners, government agencies, etc.).

[0125] Enterprise campaign control panel component **1230** may provide role-based access and operations rights for an enterprise to coupon management services, referral management services, loyalty program management services, etc. Enterprise campaign control panel component **1230** may identify real-time, transaction-based parses from a transaction log file as a basis for triggering a marketing program based on coupons, referrals, loyalty program management, future marketing effort-based programs, marketing efforts on enterprise devices **220**, marketing efforts from third party systems, etc. Enterprise campaign control panel component **1230** may relay real-time transaction-based triggers from the transaction log file to enterprise device **220**.

[0126] Enterprise campaign control panel component **1230** may create marketing programs that rely upon real-time transactional data exchange with enterprise device **220** immediately after a purchase so that associated product offerings may be conveyed to a consumer. Enterprise campaign control panel component **1230** may create geo-location based marketing programs that provide geographically targeted marketing efforts based upon consumer proximity to an enterprise location. Enterprise campaign control panel component **1230** may create marketing programs that rely on providing related suggestions while a consumer is searching for products and offers.

[0127] Enterprise marketing analytics control panel component **1240** may provide an enterprise with access to customer targeting services, market analysis services, etc. Enterprise marketing analytics control panel component **1240** may capture, for analytics processing, transaction data at every process step within lifestyle application platform **230** that interacts with a consumer data element. Enterprise marketing analytics control panel component **1240** may capture, for marketing analytics processing, consumer data, such as demographic information, identity information, geographic information, transactional information, channel specific contact information, campaign performances, etc. associated with consumers. Enterprise marketing analytics control panel component **1240** may generate analytics reports based on the consumer data and/or based on third party data received from enterprise devices **220**.

[0128] For consumers who are customers of an enterprise, enterprise help desk control panel component **1250** may retrieve consumer information, create consumer profiles, update consumer profiles, retrieve consumer profiles, obtain a status of a consumer, change the status of the consumer, etc.

Enterprise help desk control panel component **1250** may enable an enterprise to retrieve accounts of a consumer, retrieve balance information for a consumer account, retrieve transactions of a consumer account, etc.

[0129] Enterprise security control panel component **1260** may enable an enterprise to access UIS administrative functionality and to set security preferences for the enterprise. Enterprise security control panel component **1260** may enable an enterprise to have search, auditing, and reporting capabilities for fraud and security log records of the enterprise. Enterprise security control panel component **1260** may enable enterprises to change lifestyle application platform **230** default login duration settings.

[0130] Although FIG. 12 shows example functional components of enterprise portal component **920**, in other implementations, enterprise portal component **920** may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 12. Additionally, or alternatively, one or more functional components of enterprise portal component **920** may perform one or more other tasks described as being performed by one or more other functional components of enterprise portal component **920**.

[0131] FIG. 13 is a diagram of example functional components of enterprise services component **930** of lifestyle application platform **230** (FIG. 2). In one implementation, the functions described in connection with FIG. 13 may be performed by one or more components of device **300** (FIG. 3) or by one or more devices **300**. As shown in FIG. 13, enterprise services component **930** may include an enterprise payment services component **1300**, an enterprise data exchange services component **1310**, an enterprise profile procurement services component **1320**, an enterprise database maintenance component **1330**, an enterprise coupon management services component **1340**, an enterprise referral management services component **1350**, an enterprise loyalty management services component **1360**, an enterprise preference targeting tools component **1370**, an enterprise transaction value forecasting component **1380**, and an enterprise fraud prevention component **1390**.

[0132] Enterprise payment services component **1300** may enable an enterprise to replenish the enterprise's accounts balance; debit the enterprise's accounts balance; view, search, and sort the enterprise's payments; set interface settings; request a refund for a payment; track collection status of marketing exchange fees; etc. Enterprise payment services component **1300** may enable various payment methods to be imported for an enterprise, and may enable an enterprise to replenish the enterprise's account balance. Enterprise payment services component **1300** may enable an enterprise to debit the enterprise's account balance, and may capture a payment account transaction, for all purchases, in the form of a digital equivalent of a receipt.

[0133] Enterprise payment services component **1300** may enable an enterprise to search payment account transactions, sort payment account transactions, set interface preferences regarding how the enterprise searches, sorts, and interacts with payment method accounts, etc. Enterprise payment services component **1300** may enable an enterprise to request a refund from lifestyle application platform **230**, and may notify an enterprise about a success or a failure of a payment. Enterprise payment services component **1300** may provide an e-commerce data conduit with a financial institution that shares an enterprise's e-payment data. Enterprise payment

services component **1300** may track all agreed upon fees for consumer data record exchange, as well as a collection status of those fees.

[0134] Enterprise data exchange services component **1310** may enable an enterprise to schedule data processing activities, such as data downloading, data merging and/or purging, data cleansing, data suppression, data fulfillment, etc. Enterprise data exchange services component **1310** may perform data merging/purging, may de-duplicate consumer data records, and may compile the information into a single flat file. The data cleansing may be performed against known, acceptable data records. Enterprise data exchange services component **1310** may suppress or omit a consumer data record from another consumer data record for consumers that opted out of marketing campaign data usage, are listed on government compiled privacy lists, have not paid for products or services, opted out of all marketing activities, etc.

[0135] Enterprise data exchange services component **1310** may suppress of consumer data provided by an enterprise within a marketing exchange community, and may transmit compiled consumer data records to an authorized third party, such as a mail house, an email fulfillment provider, a SMS provider, a list broker service, etc. Enterprise data exchange services component **1310** may provide an enterprise with a status view of all merge/purge, data cleanse, suppression and fulfillment processes that pertain to the enterprise. Enterprise data exchange services component **1310** may provide an enterprise a detailed data processing view that can be searched and sorted by campaign, marketing channel, product/service, stage of data processing, etc.

[0136] Enterprise profile procurement services component **1320** may enable an enterprise to obtain data order counts, request a data order from another enterprise, track a data order, append documentation to a data order, review a data order from another enterprise, approve a data order, etc. Enterprise profile procurement services component **1320** may enable enterprises to exchange consumer profile data with segmentation and criteria based data element selectivity. Enterprise profile procurement services component **1320** may support consumer data record selectivity based on demographics, purchase type, industry segmentation, income, purchase amount, purchase method, ethnicity, etc. Enterprise profile procurement services component **1320** may enable an enterprise to query a database storing consumer data records by data record selectivity.

[0137] Enterprise profile procurement services component **1320** may enable an enterprise to confirm and order a list of consumer data records for a defined marketing campaign from another enterprise. Enterprise profile procurement services component **1320** may enable an enterprise to track all list order requests that pertain to the enterprise, and to attach required documentation to a list order, such as marketing content, list rental agreement terms, an invoice, etc. Enterprise profile procurement services component **1320** may enable an enterprise to review associated list order documentation and accept a list order request. Enterprise profile procurement services component **1320** may transmit data files from one enterprise to another enterprise once a list order request has been confirmed, and may enable an enterprise to confirm a list order request.

[0138] Enterprise database maintenance component **1330** may enable an enterprise to cleanse and update the enterprise's internal database attributes. Enterprise database maintenance component **1330** may link a consumer across mul-

iple enterprise devices **220** and/or lifestyle application platform **230** so that when changes are made to the consumer's profile, the changes are made across multiple enterprise devices **220**. Enterprise database maintenance component **1330** may provide business rules that establish a priority for consumer profile data received from various sources.

[0139] Enterprise coupon management services component **1340** may enable an enterprise to create a coupon, edit a coupon, copy a coupon, delete a coupon, publish a coupon, attach a coupon to a campaign, etc. A coupon may include a coupon name, a coupon description, a coupon code, a coupon workflow, a product/service name, a maximum number of offers, timing conditions, location information, etc. Enterprise coupon management services component **1340** may enable an enterprise to confirm a coupon publication action.

[0140] Enterprise referral management services component **1350** may enable an enterprise to request a referral partnership initiation (e.g., with another enterprise), request a referral partnership termination, track referral requests, append documentation to a referral request, confirm a referral request, etc. Enterprise referral management services component **1350** may enable an enterprise to request a referral partnership initiation for a defined marketing campaign with another enterprise. The documentation appended to a referral request may include marketing content, referral program terms, a fee structure, etc. Enterprise referral management services component **1350** may enable an enterprise to review the referral request documentation, and to accept a referral initiation request. Enterprise referral management services component **1350** may transmit real-time transactional log data from one enterprise to another enterprise once a referral initiation request has been confirmed. Enterprise referral management services component **1350** may track all agreed upon fees for referral program exchanges, as well as the collection status of those fees.

[0141] Enterprise loyalty management services component **1360** may enable an enterprise to create a loyalty program, edit a loyalty program, copy a loyalty program, delete a loyalty program, publish a loyalty program, attach a loyalty program to a campaign, manage loyalty program registration, manage points awards, manage benefit allocations, etc. The loyalty program may include a loyalty program name, a loyalty program description, a loyalty program code, a loyalty program workflow, qualifying products/services, a maximum number of offers, a maximum number of points, an initial number of points, a valid time period for the program, location information, etc.

[0142] Enterprise preference targeting tools component **1370** may provide analytics tools for an enterprise to identify potential consumers for marketing activities for specific products, services, and/or content. Enterprise preference targeting tools component **1370** may provide tools for an enterprise to predict consumer value potential in terms of response likelihood and lifetime value of new customers. Enterprise preference targeting tools component **1370** may provide tools for an enterprise to perform campaign response analysis tying marketing efforts to consumer orders, with multiple forms of performance reporting. Enterprise preference targeting tools component **1370** may provide an enterprise with performance modeling tools for untapped markets, cross-sell opportunities, identification of "at risk" customers, prediction of future loyalty and churn, etc.

[0143] Enterprise transaction value forecasting component **1380** may provide tools for an enterprise to specify market

analytics report parameters and request market analytics reports. Enterprise transaction value forecasting component **1380** may enable an enterprise to request data enrichment of consumer data stored by lifestyle application platform **230**. Enterprise transaction value forecasting component **1380** may provide tools for an enterprise to conduct customer profiling and analysis across various anonymous or aggregate data categories, such as demographic, self-identified, geographic, transactional, etc. data categories. Enterprise transaction value forecasting component **1380** may provide reporting tools for an enterprise to evaluate the enterprise's marketing exchange performance, and may provide reporting tools for planning, budgeting, forecasting, and executing marketing campaigns and measuring response.

[0144] Enterprise fraud prevention component **1390** may enable an enterprise to access UIS administrative functionality and to set security preferences for the enterprise. Enterprise fraud prevention component **1390** may enable an enterprise to have search, auditing, and reporting capabilities for fraud and security log records of the enterprise and/or of consumers associated with the enterprise.

[0145] Although FIG. 13 shows example functional components of enterprise services component **930**, in other implementations, enterprise services component **930** may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 13. Additionally, or alternatively, one or more functional components of enterprise services component **930** may perform one or more other tasks described as being performed by one or more other functional components of enterprise services component **930**.

[0146] FIG. 14 is a diagram of example functional components of analytics component **940** of lifestyle application platform **230** (FIG. 2). In one implementation, the functions described in connection with FIG. 14 may be performed by one or more components of device **300** (FIG. 3) or by one or more devices **300**. As shown in FIG. 14, analytics component **940** may include a predictive/decision analytics component **1400**, a knowledge consumption component **1410**, one or more analytics engines **1420**, and one or more decision engines **1430**.

[0147] Predictive/decision analytics component **1400** may perform predictive and/or decision analytics on data (e.g., consumer information **410** and/or enterprise information **420**, FIG. 4) stored by lifestyle application platform **230**. The predictive analytics may include a variety of techniques (e.g., modeling, machine learning, data mining, etc.) that analyze current and historical data to make predictions about future events. The predictive analytics may exploit patterns found in historical and transactional data to identify risks and opportunities for enterprises. The predictive analytics may capture relationships among many factors to allow assessment of risk or potential associated with a particular set of conditions, which may guide decision making for candidate transactions. The decision analytics may include procedures, methods, and/or tools for identifying, representing, and assessing aspects of a decision, and for prescribing a recommended course of action.

[0148] In one example implementation, predictive/decision analytics component **1400** may utilize statistics **1440**, clustering **1445**, classification **1450**, and/or prediction **1455** to make predictions (e.g., about consumer behavior). Statistics **1440** may include collecting, organizing, analyzing,

interpreting, and presenting data. Clustering **1445** may include assigning a set of data into groups (e.g., clusters) so that data in the same cluster may be more similar to each other than to data in other clusters. In one example, clustering **1445** may be used in conjunction with explorative data mining. Classification **1450** may include identifying to which set of categories (e.g., classifications) a new data observation belongs based on a training set of data containing data with a known category membership. Prediction **1455** may include analyzing current and historical data to make predictions about future events (e.g., consumer behavior).

[0149] Knowledge consumption component **1410** may utilize the data stored by lifestyle application platform **230** to generate triggers **1460**, reports **1465**, services **1470**, and/or dashboards **1475**. Triggers **1460** may include mechanisms that cause lifestyle application platform **230** to push information (e.g., offers, notifications, marketing campaigns, etc.) to consumers (e.g., via user devices **210**). Reports **1465** may include analytics reports, marketing reports, sales reports for products, services, and/or content, etc. Services **1470** may include any of the services described herein for lifestyle application platform **230**. For example, services **1470** may include program management services, privacy management services, an offers service, loyalty services, digital payment services, etc. Dashboards **1475** may include any of the dashboards described herein for lifestyle application platform **230**. For example, dashboards **1475** may include the consumer dashboard provided by consumer portal component **900**, the enterprise dashboard provided by enterprise portal component **920**, etc.

[0150] Analytics engine **1420** may provide advanced and continuous analysis of real-time information and historical data retrieved and/or received by lifestyle application platform **230**. Analytics engine **1420** may analyze data from multiple information sources and may provide insight into consumer behavior.

[0151] Decision engine **1430** may use data received from consumers (e.g., consumer information **410**, FIG. 4) and/or enterprises (e.g., enterprise information **420**, FIG. 4) to provide more relevant or targeted offers for products, services, and/or content. Decision engine **1430** may use such data to provide customized offers for each consumer.

[0152] Although FIG. 14 shows example functional components of analytics component **940**, in other implementations, analytics component **940** may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 14. Additionally, or alternatively, one or more functional components of analytics component **940** may perform one or more other tasks described as being performed by one or more other functional components of analytics component **940**.

[0153] FIG. 15 is a diagram of example functional components of data integration component **960** of lifestyle application platform **230** (FIG. 2). In one implementation, the functions described in connection with FIG. 15 may be performed by one or more components of device **300** (FIG. 3) or by one or more devices **300**. As shown in FIG. 15, data integration component **960** may include a metadata component **1500**, an enrichment component **1510**, a transformation component **1520**, an aggregation component **1530**, an ETL component **1540**, a cleansing component **1550**, a validation component **1560**, and a harmonization component **1570**.

[0154] Metadata component **1500** may create metadata for some or all of the data retrieved and/or received by lifestyle application platform **230**. In one example, the quality of the original data may be increased by creating metadata for the data.

[0155] Enrichment component **1510** may add external information, from multiple sources, to the data retrieved/received by lifestyle application platform **230**. The external information may enhance the quality and richness of the data, and may provide more information to enterprises (e.g., about consumers).

[0156] Transformation component **1520** may convert the data retrieved/received by lifestyle application platform **230** from a first data format into a second, different data format. In one example, the data may be transformed into a format that may be utilized by user devices **210** and/or enterprise devices **220**.

[0157] Aggregation component **1530** may aggregate the data retrieved/received by lifestyle application platform **230** into a summary form for a variety of purposes (e.g., statistical analysis, obtain more information about particular consumers based on specific variables, such as age, profession, income, etc.).

[0158] ETL component **1540** may extract data (e.g., the data retrieved/received by lifestyle application platform **230**) from outside sources, may transform the data to fit operational needs (e.g., of the enterprises), and may load the data into an end target (e.g., a database, an operational data store, a data mart, a data warehouse, etc.).

[0159] Cleansing component **1550** may detect and correct (or remove) corrupt or inaccurate records from the data retrieved/received by lifestyle application platform **230**. In one example, cleansing component **1550** may identify incomplete, incorrect, inaccurate, irrelevant, etc. parts of the data, and may replace, modify, or delete the identified parts of the data.

[0160] Validation component **1560** may use routines (e.g., validation rules, check routines, etc.) to check for correctness, meaningfulness, and security of the data retrieved/received by lifestyle application platform **230**. The routines may be implemented through automated facilities of a data dictionary or by inclusion of explicit application program validation logic.

[0161] Harmonization component **1570** may compare two or more data records (e.g., from the data retrieved/received by lifestyle application platform **230**), and may identify commonalities among the data records that warrant the data records being combined, or harmonized, into a single data record.

[0162] Although FIG. 15 shows example functional components of data integration component **960**, in other implementations, data integration component **960** may include fewer functional components, different functional components, differently arranged functional components, or additional functional components than depicted in FIG. 15. Additionally, or alternatively, one or more functional components of data integration component **960** may perform one or more other tasks described as being performed by one or more other functional components of data integration component **960**.

[0163] FIG. 16 is a diagram of example data that may be provided in data sources component **970** of lifestyle application platform **230** (FIG. 2). As shown in FIG. 16, data sources component **970** may include internal data **1600** and external data **1610**.

[0164] Internal data **1600** may include data associated with consumers and/or user devices **210** utilized by consumers. For example, internal data **1600** may include consumer profiles **1620**, consumer transactions **1625**, UIS information **1630**, mobile application usage information **1635**, mobile web usage information **1640**, and mobile device usage information **1645**. Consumer profiles **1620** may include information associated with profiles created by consumers as described herein. Consumer transactions **1625** may include transactions performed by consumers with lifestyles application platform **230**, as described herein. UIS information **1630** may include identity services information provided by a UIS. Mobile application usage information **1635** may include information associated with usage of the lifestyle application by consumers (e.g., via user devices **210**). Mobile web usage information **1640** may include information associated with web usage by consumers (e.g., via user devices **210**). Mobile device usage information **1645** may include information associated with usage of user devices **210** by consumers.

[0165] External data **1610** may include data associated with enterprises, enterprise devices **220** utilized by enterprises, and/or third parties. For example, external data **1610** may include member profiles **1650**, loyalty profiles **1655**, and third party source data **1660**. Member profiles **1650** may include information associated with profiles created by enterprises via lifestyle application platform **230**. Loyalty profiles **1655** may include information associated with consumer loyalty profiles for enterprises associated with lifestyle application platform **230**. Third party source data **1660** may include data provided by third parties to lifestyle application platform **230**, such as marketing reports, consumer information, sales reports for products, services, and/or content, etc.

[0166] Although FIG. 16 shows example data that may be provided in data sources component **970**, in other implementations, data sources component **970** may include less data, different data, differently arranged data, or additional data than depicted in FIG. 16.

[0167] FIGS. 17 and 18 are flow charts of an example process **1700** for providing a lifestyle application platform according to an implementation described herein. In one implementation, process **1700** may be performed by lifestyle application platform **230**. Alternatively, or additionally, some or all of process **1700** may be performed by another device or group of devices, including or excluding lifestyle application platform **230**.

[0168] As shown in FIG. 17, process **1700** may include receiving preference, demographic, identity, relationship, and location information associated with consumer (block **1710**), and creating a consumer profile and single authentication ID for the consumer based on the consumer information (block **1720**). For example, in an implementation described above in connection with FIG. 4, a consumer may provide consumer information **410** to user device **210**. Consumer information **410** may include brand preferences, demographic information, identity information, relationship information, etc. associated with the consumer. User device **210** may add information to consumer information **410**, such as location information and/or capability information associated with user device **210**. User device **210** may provide consumer information **410** to lifestyle application platform **230**. Lifestyle application platform **230** may receive consumer information **410**, and may create a consumer profile and a single authentication ID for the consumer based on consumer information **410**. The single authentication ID may

include a password, a thumbprint, a voice command, a retinal scan, etc. associated with the consumer.

[0169] As further shown in FIG. 17, process 1700 may include receiving consumer interaction, transaction, and wish list information associated with an enterprise (block 1730), and performing an analysis of the consumer information and the enterprise information (block 1740). For example, in an implementation described above in connection with FIG. 4, lifestyle application platform 230 may receive enterprise information 420, and may analyze consumer information 410 and enterprise information 420. In one example, lifestyle application platform 230 may compare consumer information 410 and enterprise information 420, and may determine whether any portion of consumer information 410 matches any portion of enterprise information 420. For example, if consumer information 410 indicates that the consumer is interested in a particular product offered by the enterprise, lifestyle application platform 230 may determine that information associated with the particular product should be provided to the consumer.

[0170] Returning to FIG. 17, process 1700 may include providing relevant notifications, reports, and offers to the consumer based on the analysis (block 1750), and providing relevant consumer profile data to the enterprise based on the analysis (block 1760). For example, in an implementation described above in connection with FIG. 4, based on the analysis, lifestyle application platform 230 may generate, from enterprise information 420, enterprise information 430 (e.g., notifications, reports, offers, etc. for products, services, and/or content provided by the enterprise) relevant to the consumer. Lifestyle application platform 230 may provide the relevant enterprise information 430 to user device 210, and user device 210 may display the relevant enterprise information 430 to the consumer. Based on the analysis, lifestyle application platform 230 may generate, from consumer information 410, consumer information 440 (e.g., consumer profile data) relevant to the enterprise. Lifestyle application platform 230 may provide the relevant consumer information 440 to enterprise device 220, and enterprise device 220 may display the relevant consumer information 440 to a user associated with the enterprise.

[0171] Process block 1740 may include the process blocks depicted in FIG. 18. As shown in FIG. 18, process block 1740 may include associating the consumer information with the enterprise information (block 1800), and determining an appropriate product, service, and/or content to provide to the consumer based on the association (block 1810). For example, in an implementation described above in connection with FIG. 4, lifestyle application platform 230 may associate consumer information 410 with enterprise information 420 by comparing consumer information 410 with enterprise information 420. Lifestyle application platform 230 may determine an appropriate product, service, and/or content to provide to the consumer based on the association of consumer information 410 with enterprise information 420. In some implementations, lifestyle application platform 230 may determine the most appropriate product, service, and/or content to provide to the consumer, based on available products, services, and/or content.

[0172] FIGS. 19A-19H are diagrams of example user interfaces 1900-1970 that may be generated or provided by user device 210 (e.g., via the lifestyle application). User interfaces 1900-1970 may include graphical user interfaces (GUIs) or non-graphical user interfaces, such as text-based interfaces.

User interfaces 1900-1970 may provide information to users via customized interfaces (e.g., proprietary interfaces) and/or other types of interfaces (e.g., browser-based interfaces, etc.). User interfaces 1900-1970 may receive user inputs via one or more input devices, may be user-configurable (e.g., a user may change the sizes of user interfaces 1900-1970, information displayed in user interfaces 1900-1970, color schemes used by user interfaces 1900-1970, positions of text, images, icons, windows, etc., in user interfaces 1900-1970, etc.), and/or may not be user-configurable. Information associated with user interfaces 1900-1970 may be selected and/or manipulated by a consumer associated with user device 210 (e.g., via a touch screen display, a mouse, a keyboard, a keypad, voice commands, etc.).

[0173] In one example, user interfaces 1900-1970 may depict information associated with a hotel check in scenario. Assume that the consumer associated with user device 210 previously reserved a room at a particular hotel (e.g., M Hotels) via lifestyle application platform 230. Accordingly, lifestyle application platform 230 may store all of the information associated with the consumer's reservation. Lifestyle application platform 230 may interact with user device 210 to provide information displayed in one or more of user interfaces 1900-1970.

[0174] When the consumer approaches the hotel with user device 210, location information associated with user device 210 may trigger lifestyle application platform 230 to provide a notification to user device 210. For example, as shown in FIG. 19A, the notification may cause user device 210 to display user interface 1900. User interface 1900 may display a notification asking whether the consumer wishes to check into the hotel (e.g., "Hi Mary Wise. Welcome to M New York. Are you ready to check in?") If the consumer selects "Check In" on user interface 1900, user interface 1910 of FIG. 19B may be displayed to the consumer. User interface 1910 may display a "check in now" window to the consumer.

[0175] If the consumer selects the "check in now" window of FIG. 19B, user interface 1920 of FIG. 19C may be displayed to the consumer. User interface 1920 may request that the consumer provide a thumbprint (or some other verification mechanism) to verify an identity of the consumer. If the consumer provides a thumbprint and lifestyle application platform 230 verifies the consumer thumbprint, user interface 1930 of FIG. 19D may be displayed to the consumer. User interface 1930 may provide the consumer with an option to receive an electronic room key or to unlock the door to the consumer's hotel room. Since the consumer does not have the electronic room key yet, the consumer may elect to receive the electronic room key.

[0176] When the consumer elects to receive the electronic room key, lifestyle application platform 230 may provide the electronic room key to user device 210 and user interface 1940 of FIG. 19E may be displayed to the consumer. User interface 1940 may indicate that user device 210 has received the electronic room key and that the electronic room key is ready for use. Lifestyle application platform 230 may provide information associated with the reservation in user interface 1950 of FIG. 19F. User interface 1950 may display, to the consumer, a room number (e.g., Room #222), an option to call the front desk, directions, an option to open the door to the room, etc. If the user selects the option to open the door to the room, user interface 1960 of FIG. 19G may be displayed to the consumer. User interface 1960 may provide the consumer with option to receive an electronic room key or to unlock the

door to the consumer's hotel room. Since the consumer has the electronic room key, the consumer may elect to unlock the door to the hotel room. When the consumer elects to unlock the door, the consumer may tap user device **210** against a lock of the door, and the electronic room key (e.g., provided to user device **210**) may unlock the door. Once the door is unlocked, lifestyle application platform **230** may cause user interface **1970** of FIG. **19H** to be displayed to the consumer (e.g., via user device **210**). User interface **1970** may provide details about the room (e.g., a rate per night, check-in and check-out dates, etc.) and other information (e.g., maps, directions, phone numbers, etc.).

[**0177**] Although user interfaces **1900-1970** depict a variety of information, in other implementations, user interfaces **1900-1970** may depict less information, different information, differently arranged information, and/or additional information than depicted in FIGS. **19A-19H**.

[**0178**] Systems and/or methods described herein may provide a lifestyle application platform that links identity, mobile, social, location, payment, and commerce services to anticipate a consumer's needs and to proactively recommend appropriate and customized products, services, and/or content to the consumer. The lifestyle application platform may enable the enterprises to deliver the right products, services, and/or content to consumers, may improve ARPU for the enterprises, and may lower costs of consumer acquisition and retention. Consumers, via the lifestyle application platform, may obtain more control over their personal information, may receive less unsolicited spam, and may be provided with simple and safe access (e.g., via a single authentication ID) to their favorite brands of products, services, and/or content.

[**0179**] The foregoing description of implementations provides illustration and description, but is not intended to be exhaustive or to limit the invention to the precise form disclosed. Modifications and variations are possible in light of the above teachings or may be acquired from practice of the invention.

[**0180**] For example, while series of blocks have been described with regard to FIGS. **17** and **18**, the blocks and/or the order of the blocks may be modified in other implementations. Further, non-dependent blocks may be performed in parallel.

[**0181**] It will be apparent that example aspects, as described above, may be implemented in many different forms of software, firmware, and hardware in the implementations illustrated in the figures. The actual software code or specialized control hardware used to implement these aspects should not be construed as limiting. Thus, the operation and behavior of the aspects were described without reference to the specific software code—it being understood that software and control hardware could be designed to implement the aspects based on the description herein.

[**0182**] Even though particular combinations of features are recited in the claims and/or disclosed in the specification, these combinations are not intended to limit the disclosure of the possible implementations. In fact, many of these features may be combined in ways not specifically recited in the claims and/or disclosed in the specification. Although each dependent claim listed below may directly depend on only one other claim, the disclosure of the possible implementations includes each dependent claim in combination with every other claim in the claim set.

[**0183**] No element, act, or instruction used in the present application should be construed as critical or essential to the

invention unless explicitly described as such. Also, as used herein, the articles “a” and “an” are intended to include one or more items and may be used interchangeably with “one or more.” Where only one item is intended, the term “one” or similar language is used. Further, the phrase “based on” is intended to mean “based, at least in part, on” unless explicitly stated otherwise.

What is claimed is:

1. A method, comprising:

receiving, by one or more devices, consumer information from a user device associated with a consumer, the consumer information including preference information, demographic information, identity information, relationship information, transactional information, and location information associated with the consumer;

creating, by the one or more devices, a consumer profile for the consumer based on the consumer information;

receiving, by the one or more devices, enterprise information from an enterprise device associated with an enterprise, the enterprise information including consumer interaction information, consumer transaction information, and consumer wish list information associated with the enterprise;

performing, by the one or more devices, an analysis of the consumer information and the enterprise information; and

providing, by the one or more devices and to the user device, notifications, reports, and offers, associated with the enterprise and relevant to the consumer, based on the analysis of the consumer information and the enterprise information.

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

creating a single authentication identification for the consumer based on the consumer information; and

providing the notifications, the reports, and the offers to the user device based on verifying the single authentication identification.

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

providing relevant consumer profile data to the enterprise device based on the analysis of the consumer information and the enterprise information.

4. The method of claim **1**, where performing the analysis of the consumer information and the enterprise information comprises:

associating the consumer information with the enterprise information; and

determining, based on the association, an appropriate product, service, or content, of the enterprise, to offer to the consumer.

5. The method of claim **1**, where performing the analysis of the consumer information and the enterprise information comprises:

comparing the consumer information with the enterprise information; and

determining, based on the comparison, whether any portion of the consumer information matches any portion of the enterprise information.

6. The method of claim **1**, where the identity information includes at least one of:

anonymous identity information associated with the consumer,

pseudonymous identity information associated with the consumer, or

legal identity information associated with the consumer.

7. The method of claim 1, where the preference information includes preferences, of the consumer, for products, services, or content offered by the enterprise.

8. One or more devices, comprising:

one or more processors to:

receive consumer information from a user device associated with a consumer, the consumer information including preference information, demographic information, identity information, relationship information, transactional information, and location information associated with the consumer,

create a consumer profile for the consumer based on the consumer information,

receive enterprise information from an enterprise device associated with an enterprise, the enterprise information including consumer interaction information, consumer transaction information, and consumer wish list information associated with the enterprise,

perform an analysis of the consumer information and the enterprise information, and

provide, to the user device, notifications, reports, and offers, associated with the enterprise and relevant to the consumer, based on the analysis of the consumer information and the enterprise information.

9. The one or more devices of claim 8, where the one or more processors are further to:

create a single authentication identification for the consumer based on the consumer information, and

provide the notifications, the reports, and the offers to the user device based on verifying the single authentication identification.

10. The one or more devices of claim 8, where the one or more processors are further to:

provide relevant consumer profile data to the enterprise device based on the analysis of the consumer information and the enterprise information.

11. The one or more devices of claim 8, where, when performing the analysis of the consumer information and the enterprise information, the one or more processors are further to:

associate the consumer information with the enterprise information, and

determine, based on the association, an appropriate product, service, or content, of the enterprise, to offer to the consumer.

12. The one or more devices of claim 8, where, when performing the analysis of the consumer information and the enterprise information, the one or more processors are further to:

compare the consumer information with the enterprise information, and

determine, based on the comparison, whether any portion of the consumer information matches any portion of the enterprise information.

13. The one or more devices of claim 8, where the identity information includes at least one of:

anonymous identity information associated with the consumer,

pseudonymous identity information associated with the consumer, or

legal identity information associated with the consumer.

14. The one or more devices of claim 8, where the preference information includes preferences, of the consumer, for products, services, or content offered by the enterprise.

15. A computer-readable medium, comprising:

one or more instructions that, when executed by one or more processors, cause the one or more processors to:

receive consumer information from a user device associated with a consumer, the consumer information including preference information, demographic information, identity information, relationship information, transactional, and location information associated with the consumer,

create a consumer profile for the consumer based on the consumer information,

receive enterprise information from an enterprise device associated with an enterprise, the enterprise information including consumer interaction information, consumer transaction information, and consumer wish list information associated with the enterprise,

perform an analysis of the consumer information and the enterprise information, and

provide, to the user device, notifications, reports, and offers, associated with the enterprise and relevant to the consumer, based on the analysis of the consumer information and the enterprise information.

16. The computer-readable medium of claim 15, further comprising:

one or more instructions that, when executed by the one or more processors, cause the one more processors to:

create a single authentication identification for the consumer based on the consumer information, and

provide the notifications, the reports, and the offers to the user device based on verifying the single authentication identification.

17. The computer-readable medium of claim 15, further comprising:

one or more instructions that, when executed by the one or more processors, cause the one more processors to:

provide relevant consumer profile data to the enterprise device based on the analysis of the consumer information and the enterprise information.

18. The computer-readable medium of claim 15, where the one or more instructions, that cause the one or more processors to perform the analysis of the consumer information and the enterprise information, further cause the one or more processors to:

associate the consumer information with the enterprise information, and

determine, based on the association, an appropriate product, service, or content, of the enterprise, to offer to the consumer.

19. The computer-readable medium of claim 15, where the one or more instructions, that cause the one or more processors to perform the analysis of the consumer information and the enterprise information, further cause the one or more processors to:

compare the consumer information with the enterprise information, and

determine, based on the comparison, whether any portion of the consumer information matches any portion of the enterprise information.

20. The computer-readable medium of claim 15, where the identity information includes at least one of:

anonymous identity information associated with the consumer,
pseudonymous identity information associated with the consumer, or
legal identity information associated with the consumer.

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