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(54) REAL ESTATE AGENT AND BUYER REAL-TIME ONLINE MATCHING SERVICE

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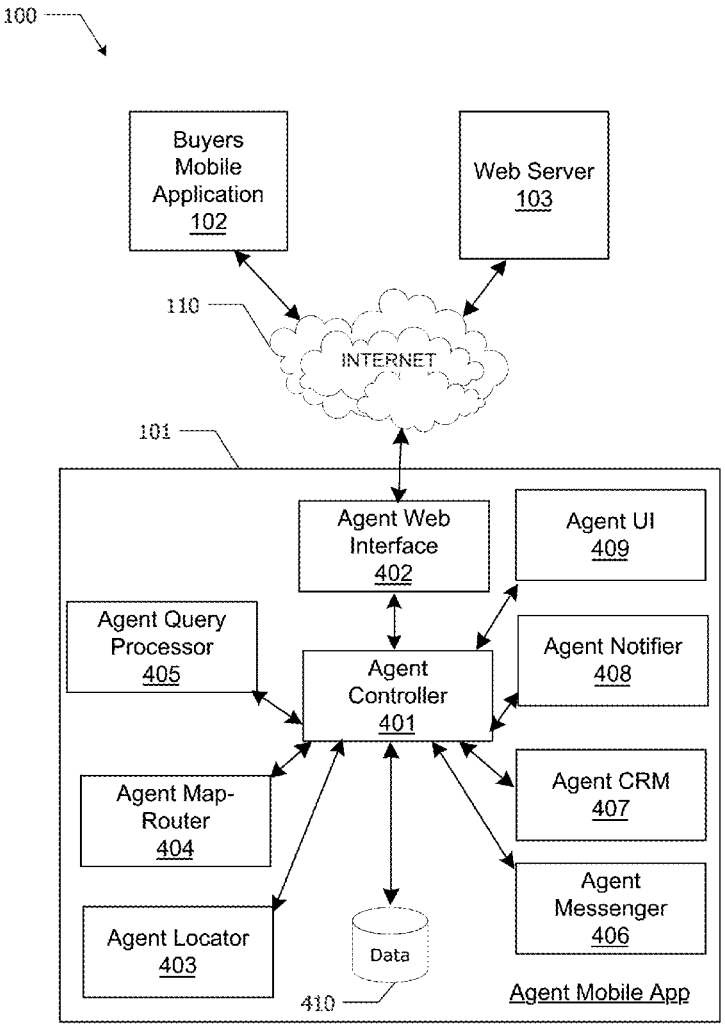
CPC ***G06Q 50/165*** (2013.01); ***G06F 9/54*** (2013.01); ***G06F 16/9038*** (2019.01); ***G06F 16/909*** (2019.01)

(57) **ABSTRACT**

A system and method for providing an online, real-time buyer and agent matching service is disclosed. The system includes an agent mobile device, a buyer mobile device, and a web server. The agent mobile device has an agent locator for providing agent current location data to the web server, an agent query processor for responding to a buyer query for on demand showings of available properties, and an agent messenger for communicating with the buyer mobile device. The buyer mobile device has a buyer agent locator for obtaining identities and locations of one or more agents currently available to show one or more of the available properties, a buyer query generator for generating a property showing query to one of the currently available agents, and a buyer messenger for communicating with one or more of the agent messengers. The web server has an agent tracker for communicating with one or more of the agent locators to maintain a set of currently available agents and their respective current locations, a query manager for receiving and processing requests from one or more buyer agent locators, and a notification manager for providing all system notifications to the buyer mobile device and agent mobile device regarding appointments, messages, and offers.



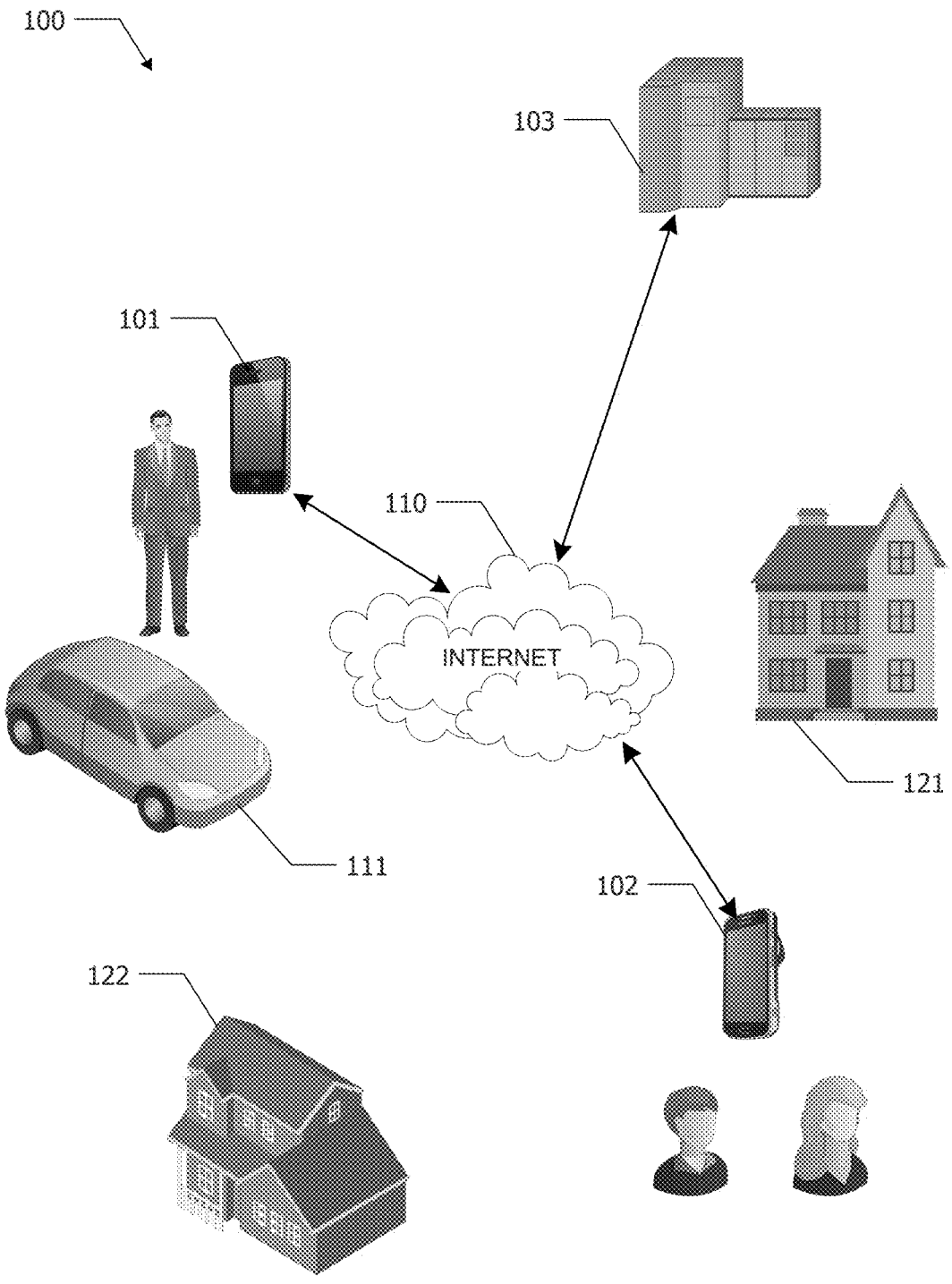


FIG. 1

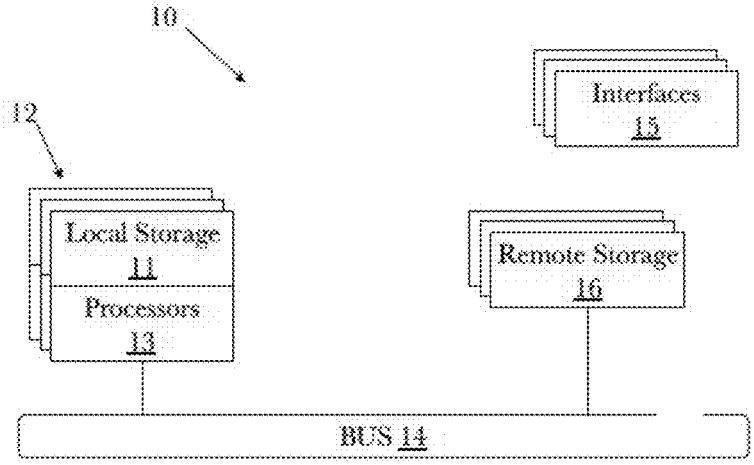

10
12
Interfaces
15
Local Storage
11
Processors
13
Remote Storage
16
BUS 14

FIG. 2a

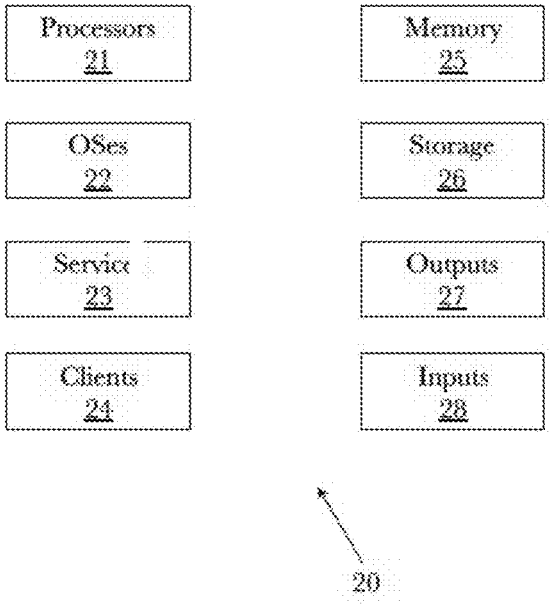

Processors
21
Memory
25
OSes
22
Storage
26
Service
23
Outputs
27
Clients
24
Inputs
28
20

FIG. 2b

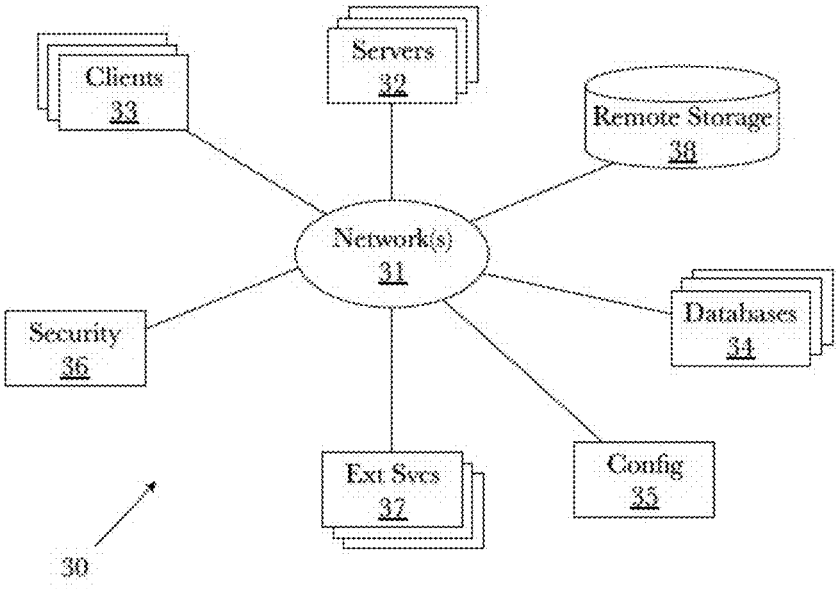

Clients
33
Servers
32
Remote Storage
38
Network(s)
31
Security
36
Databases
34
Ext Svcs
37
Config
35
30

FIG. 2c

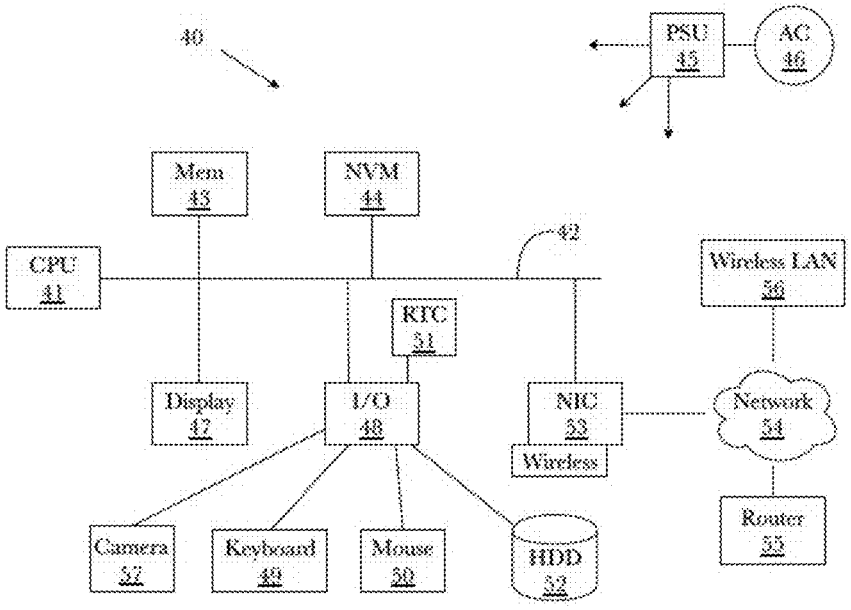

40
PSU
45
AC
46
Mem
43
NVM
44
42
CPU
41
Wireless LAN
56
RTC
31
Display
47
I/O
48
NIC
53
Wireless
Network
54
Router
55
Camera
57
Keyboard
49
Mouse
50
HDD
52

FIG. 2d

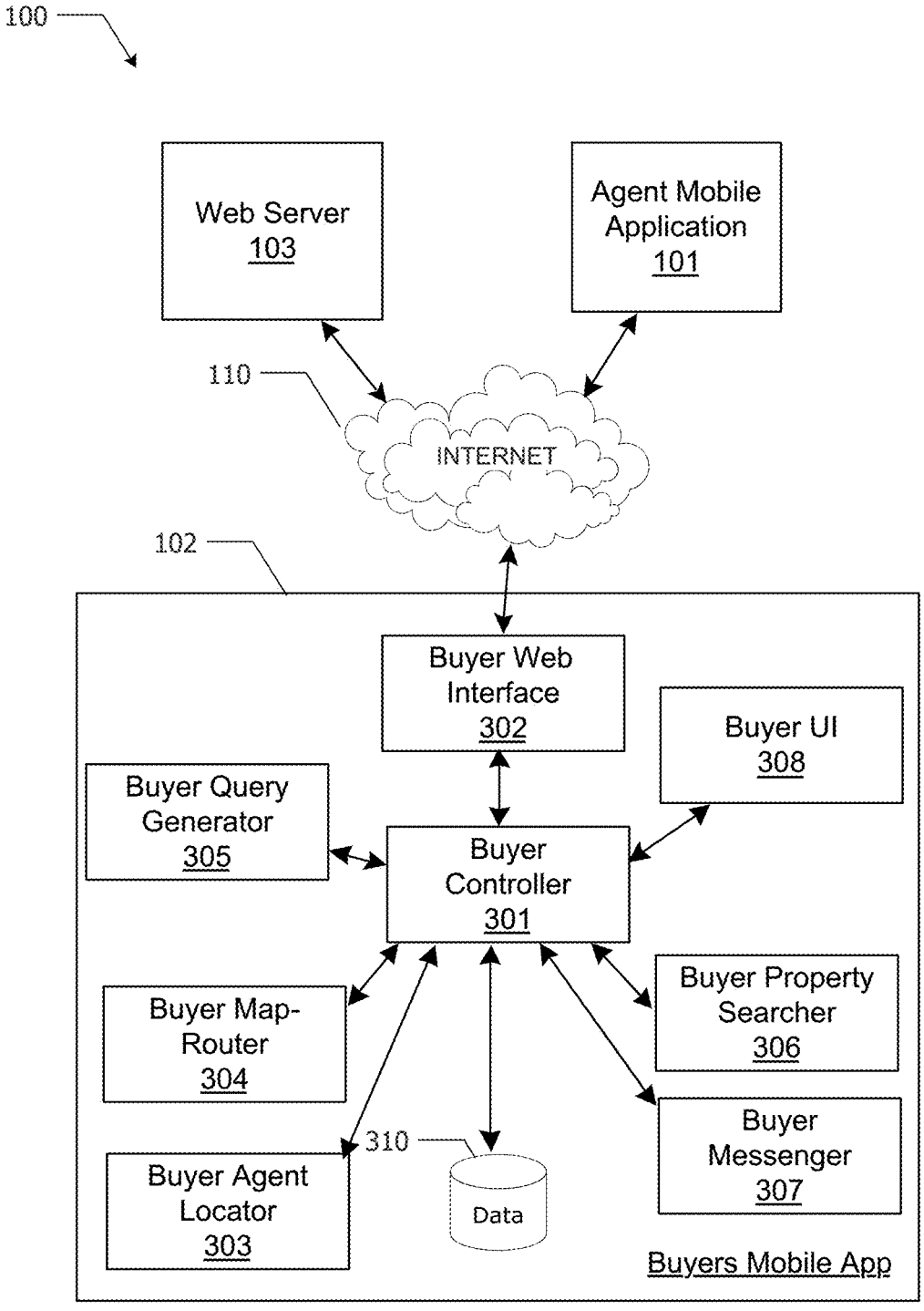

100
Web Server
103
Agent Mobile
Application
101
110
INTERNET
102
Buyer Web
Interface
302
Buyer UI
308
Buyer Query
Generator
305
Buyer
Controller
301
Buyer Map-
Router
304
Buyer Property
Searcher
306
310
Buyer Agent
Locator
303
Data
Buyer
Messenger
307
Buyers Mobile App

FIG. 3

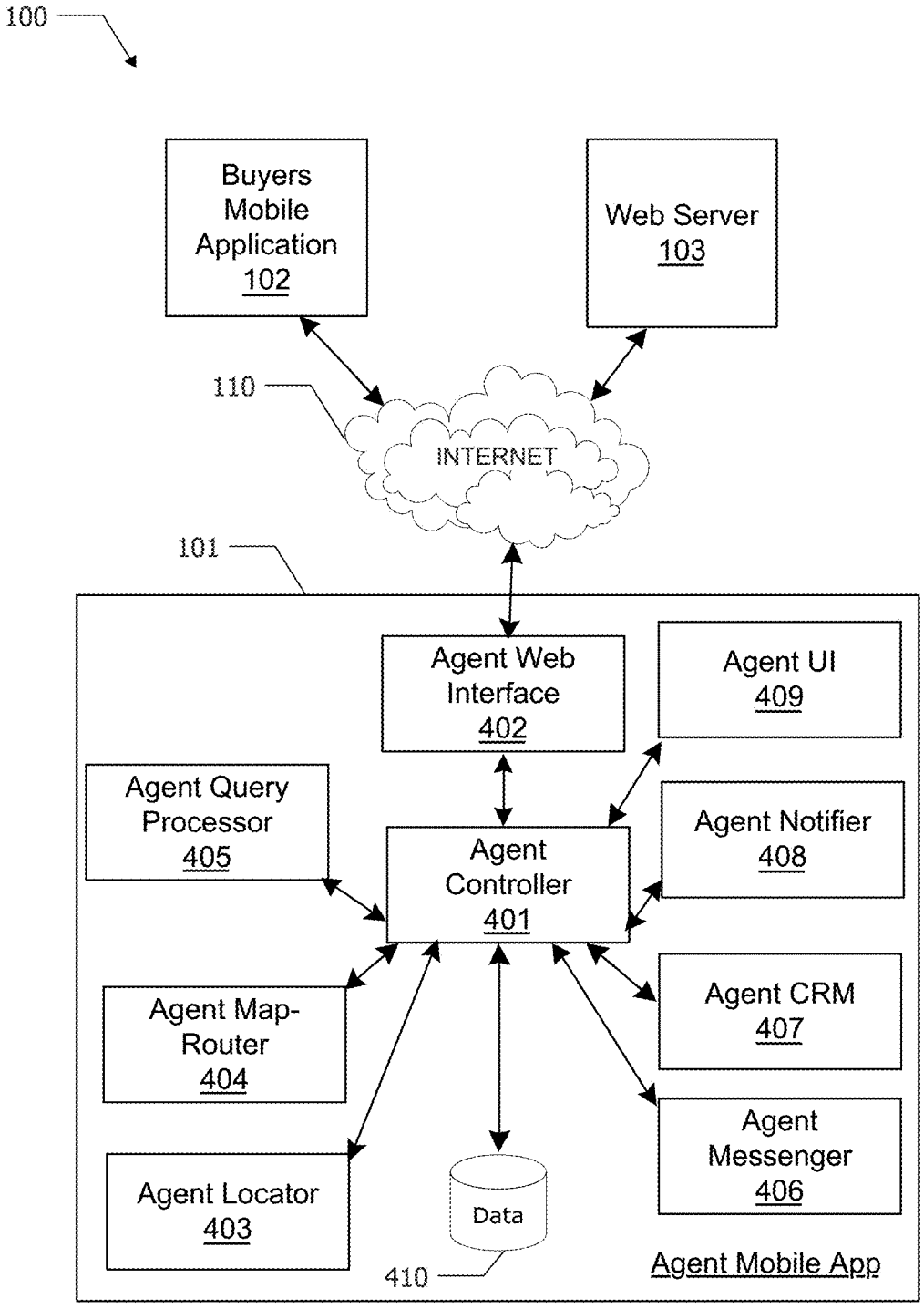

100
Buyers Mobile Application 102
Web Server 103
110
INTERNET
101
Agent Web Interface 402
Agent UI 409
Agent Query Processor 405
Agent Notifier 408
Agent Controller 401
Agent CRM 407
Agent Map-Router 404
Agent Messenger 406
Agent Locator 403
Data
410
Agent Mobile App

FIG. 4

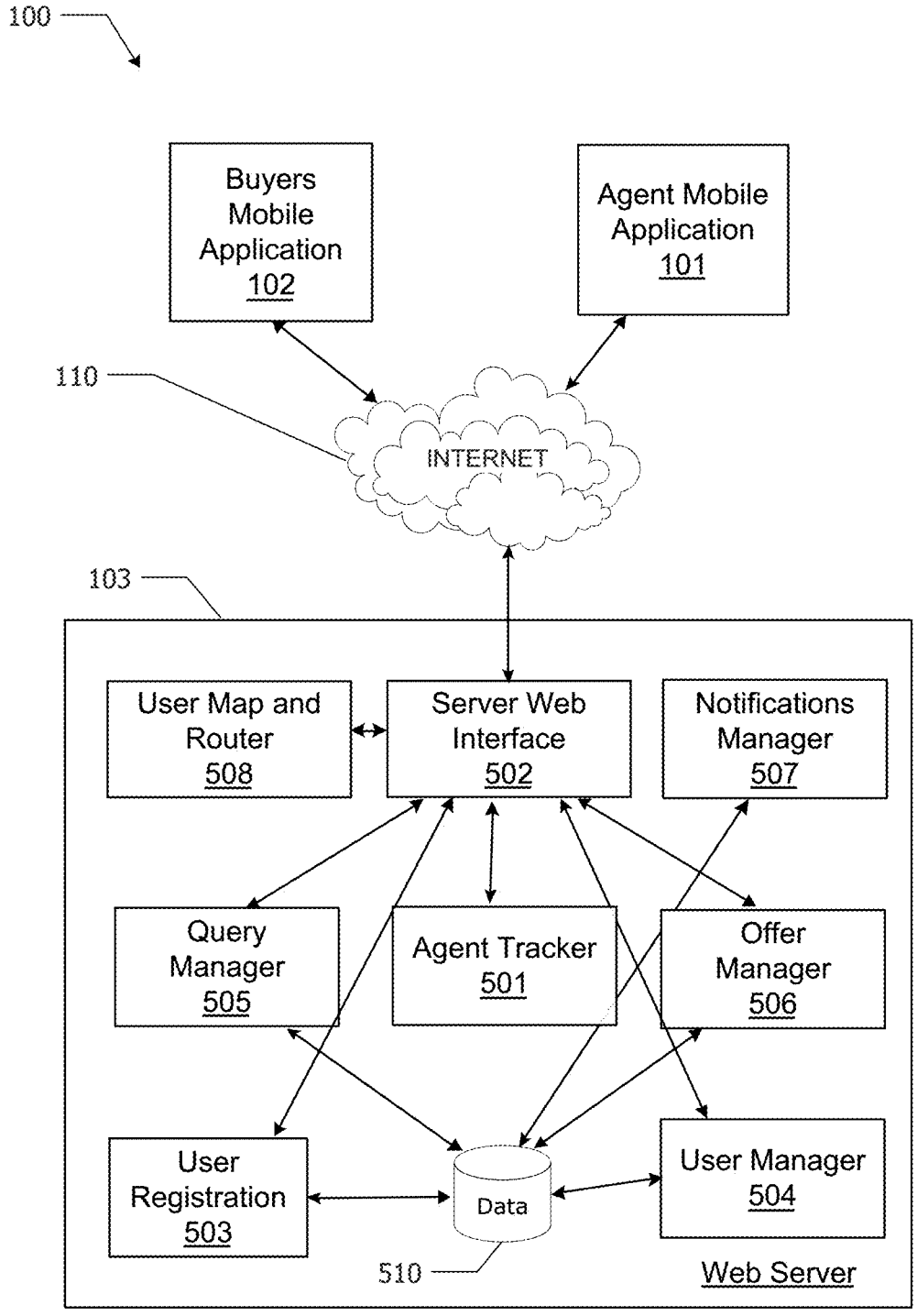

100
Buyers Mobile Application 102
Agent Mobile Application 101
110
INTERNET
103
User Map and Router 508
Server Web Interface 502
Notifications Manager 507
Query Manager 505
Agent Tracker 501
Offer Manager 506
User Registration 503
Data
User Manager 504
510
Web Server

FIG. 5

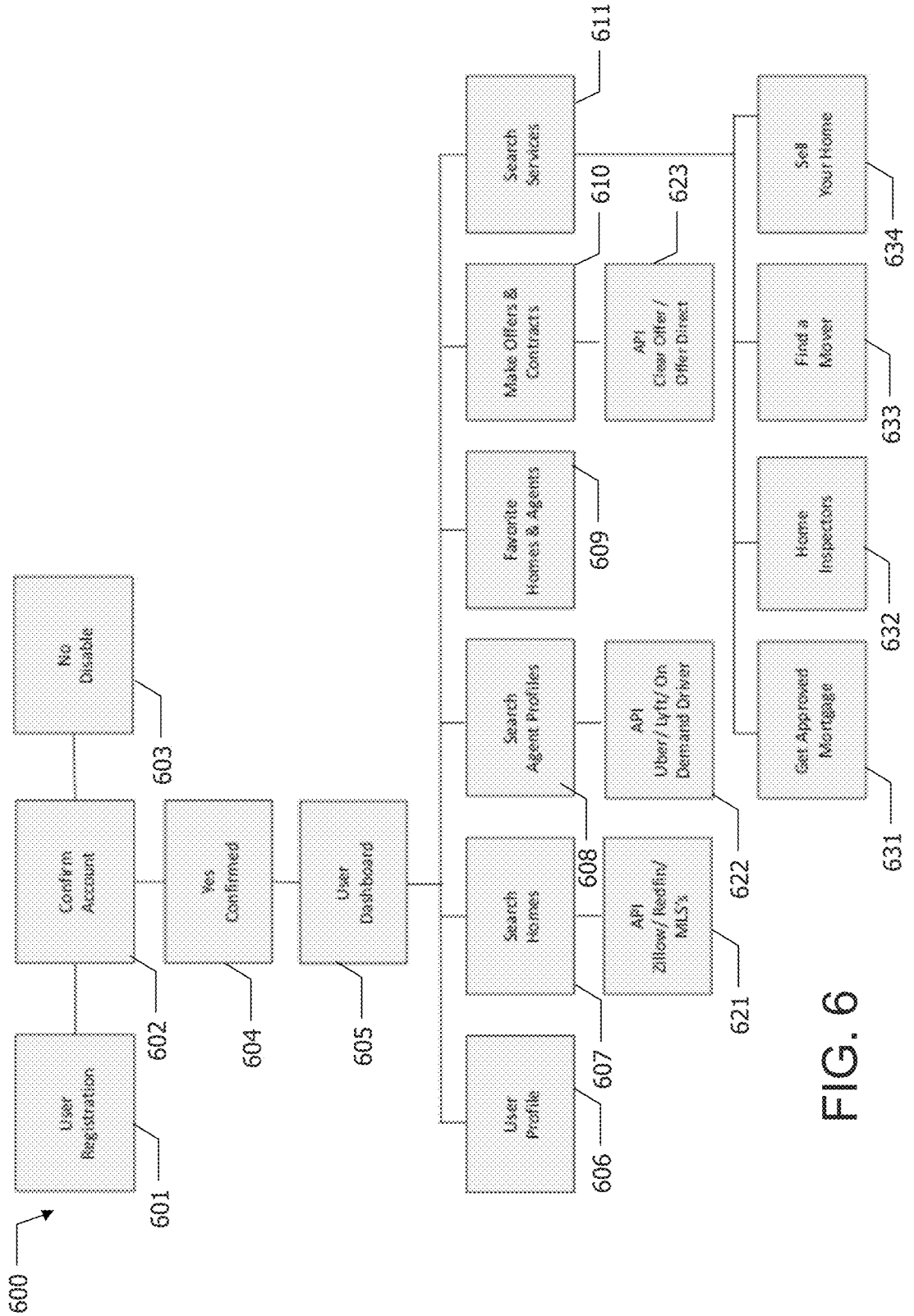

600
User Registration
601
Confirm Account
602
No Disable
603
Yes Confirmed
604
User Dashboard
605
User Profile
606
Search Homes
607
Search Agent Profiles
608
Favorite Homes & Agents
609
Make Offers & Contracts
610
Search Services
611
API Zillow/ Redfin/ MLS's
621
API Uber/ Lyft/ On Demand Driver
622
API Clear Offer/ Offer Direct
623
Get Approved Mortgage
631
Home Inspections
632
Find a Mover
633
Sell Your Home
634

FIG. 6

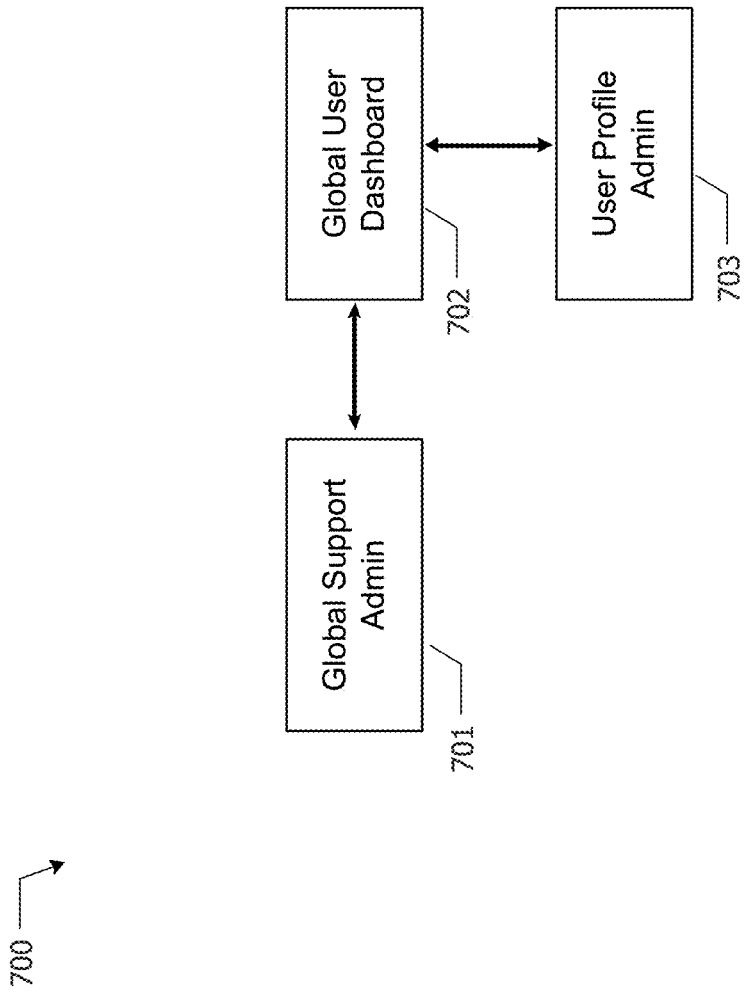

Global User Dashboard
User Profile Admin
Global Support Admin
702
703
701
700

FIG. 7

REAL ESTATE AGENT AND BUYER REAL-TIME ONLINE MATCHING SERVICE

TECHNICAL FIELD

[0001] This application relates in general to a system and method for providing real estate buying aids, and more specifically, to a system and method for providing an online, on demand, and real-time buyer and agent matching service.

BACKGROUND

[0002] There is a growing disconnect between home buyers and licensed real estate agents. Buyers are locating potential homes, running due diligence, and even getting loan approved before engaging with a real estate agent. This has drastically reduced the value of the real estate agent's position in the transaction. Buyers simply need to be shown a property for them to purchase.

[0003] Many Real Estate agents supplement their income by driving for on demand car services like Uber and Lyft. In fact, some make more money driving for Uber or Lyft than they do in Real Estate. Buyers first must be referred to or locate the agent, then wait for the agent to respond to even discuss a property, let alone go see it. This cycle takes time; time many buyers are not willing to endure. In today's world of instant Internet information, most buyers want to get immediately to the point where they view a home. This application delivers.

[0004] Even with all the technology available today this part, the final connection and showing is antiquated. In particular, current solutions, including i-Buyer platforms and property listing platforms such as Zillow, Truia, and similar web sites, provides services for sellers. None of the existing services provided for the needs of individual buyers. As such, online buyer platforms are being created where sellers can simply go online, enter their address and get an instant offer to purchase. Unfortunately, sellers often lose money selling this way, and many others, without the guidance of an agent, still sell well under market value for various reasons.

[0005] Therefore, a need exists for a system and method for providing an online, real-time buyer and agent matching service. The present invention attempts to address the limitations and deficiencies in the existing solutions according to the principles and embodiments disclosed herein to provide a missing link between eager buyers and real estate agents by delivering on demand property searches and local available agent searches.

SUMMARY

[0006] In accordance with the present invention, the above and other problems are solved by providing a system and method for an online, real-time buyer and agent matching service according to the principles and example embodiments disclosed herein.

[0007] In one embodiment, the present invention is a system for providing an online, real-time buyer and agent matching service. The system includes an agent mobile device, a buyer mobile device, and a web server. The agent mobile device has an agent locator for providing agent current location data to the web server, an agent query processor for responding to a buyer query for on demand showings of available properties, and an agent messenger for communicating with the buyer mobile device. The buyer mobile device has a buyer agent locator for obtaining identities and locations of one or more agents currently available to show one or more of the available properties, a buyer query generator for generating a property showing query to one of the currently available agents, and a buyer messenger for communicating with one or more of the agent messengers. The web server has an agent tracker for communicating with one or more of the agent locators to maintain a set of currently available agents and their respective current locations, a query manager for receiving and processing requests from one or more buyer agent locators, and a notification manager for providing all system notifications to the buyer mobile device and agent mobile device regarding appointments, messages, and offers.

[0008] The present invention is an application that enables buyers to search properties for sale or lease through search engines like Zillow, Redfin and even local their MLS (Multiple Listing Service). Once a buyer has identified a property of interest to preview, they then can instantly search and connect to a local agent available at that moment, even while the agent might be driving for on-demand services like Uber and Lyft. Agents would be able to post profiles and become rated by buyers as drivers can currently rate their passengers.

[0009] This system allows the real estate agent to become immediately available, wherever the agent may be located but available, to a buyer interested in going to see a home and make an offer if they decide to buy. The present invention comprises a buyer's profile module, search homes module, search agent module, favorites module, make offers module, and search services module. These modules work together to ensure that buyers can search, identify and save homes and when they want to go see the home, search available local agents, make offers, and search services—all on demand.

[0010] These and other objectives of the present invention will become obvious to those of ordinary skill in the art after reading the following detailed description of the preferred embodiments. It is to be understood that the foregoing general description and the following detailed description are exemplary, and are intended to provide further explanation of the invention as claimed.

[0011] In another embodiment, the present invention is a method for providing an online, real-time buyer and agent matching service. The method contacts the web server with an available agent query, receives a set of identities and current locations for one or more available agents from the webs server, selects one of the available agents from the set of set of identities and current locations received from the web server, generates and sends a property showing query for a specific property available for purchase to the one or more available agented selected by a user, receives a query response from the mobile device associated with the one or more available agented selected by a user, and meet the one or more available agented selected by a user at the specific property available for purchase.

[0012] In yet another embodiment, the present invention is a method for providing an online, real-time buyer and agent matching service. The method receives an available agent message from the agent mobile device for use in generating a set of currently available agents;, periodically receiving current location data from the agent mobile device to provide up to date location information to buyer mobile devices, receiving an available agent query from the buyer

mobile device, transmitting the set of currently available agents and their respective current locations to the buyer mobile device, and receiving a property showing query for a specific property available for purchase from the buyer mobile device intended for the one or more available agented selected by a user.

[0013] The foregoing has outlined rather broadly the features and technical advantages of the present invention in order that the detailed description of the invention that follows may be better understood. Additional features and advantages of the invention will be described hereinafter that form the subject of the claims of the invention.

[0014] It should be appreciated by those skilled in the art that the conception and specific embodiment disclosed may be readily utilized as a basis for modifying or designing other structures for carrying out the same purposes of the present invention. It should also be realized by those skilled in the art that such equivalent constructions do not depart from the spirit and scope of the invention as set forth in the appended claims. The novel features that are believed to be characteristic of the invention, both as to its organization and method of operation, together with further objects and advantages will be better understood from the following description when considered in connection with the accompanying figures. It is to be expressly understood, however, that each of the figures is provided for the purpose of illustration and description only, and is not intended as a definition of the limits of the present invention.

BRIEF DESCRIPTION OF THE DRAWINGS

[0015] Referring now to the drawings in which like reference numbers represent corresponding parts throughout:

[0016] FIG. **1** illustrates an example embodiment for a system that provides an online, real-time buyer and agent matching service according to the present invention.

[0017] FIG. **2***a* is a block diagram illustrating an exemplary hardware architecture of a computing device.

[0018] FIG. **2***b* is a block diagram illustrating an exemplary logical architecture for a client device.

[0019] FIG. **2***c* is a block diagram showing an exemplary architectural arrangement of clients, servers, and external services.

[0020] FIG. **2***d* is another block diagram illustrating an exemplary hardware architecture of a computing device.

[0021] FIG. **3** illustrates another example embodiment of a block diagram of a buyer's mobile application within a system for an online, real-time buyer and agent matching service according to the present invention.

[0022] FIG. **4** illustrates another example embodiment of a block diagram of a buyer's mobile application within a system for an online, real-time buyer and agent matching service according to the present invention.

[0023] FIG. **5** illustrates another example embodiment of a block diagram of a buyer's mobile application within a system for an online, real-time buyer and agent matching service according to the present invention.

[0024] FIG. **6** illustrates a flowchart corresponding to a method performed by software components providing a system for an online, real-time buyer and agent matching service according to the present invention.

[0025] FIG. **7** illustrates a flowchart corresponding to a method performed by software components providing a system for an online, real-time buyer and agent matching service according to the present invention.

DETAILED DESCRIPTION

[0026] This application relates in general to a system and method for providing a real estate buying aid, and more specifically, to a system and method for a system and method for an online, real-time buyer and agent matching service according to the present invention.

[0027] Various embodiments of the present invention will be described in detail with reference to the drawings, wherein like reference numerals represent like parts and assemblies throughout the several views. Reference to various embodiments does not limit the scope of the invention, which is limited only by the scope of the claims attached hereto. Additionally, any examples set forth in this specification are not intended to be limiting and merely set forth some of the many possible embodiments for the claimed invention.

[0028] In describing embodiments of the present invention, the following terminology will be used. The singular forms "a," "an," and "the" include plural referents unless the context clearly dictates otherwise. Thus, for example, reference to "a needle" includes reference to one or more of such needles and "etching" includes one or more of such steps. As used herein, a plurality of items, structural elements, compositional elements, and/or materials may be presented in a common list for convenience. However, these lists should be construed as though each member of the list is individually identified as a separate and unique member. Thus, no individual member of such list should be construed as a de facto equivalent of any other member of the same list solely based on their presentation in a common group without indications to the contrary. As used herein, the singular forms "a," "an," and "the" are intended to include the plural forms as well, unless the context clearly indicates otherwise.

[0029] It further will be understood that the terms "comprises," "comprising," "includes," and "including" specify the presence of stated features, steps or components, but do not preclude the presence or addition of one or more other features, steps or components. It also should be noted that in some alternative implementations, the functions and acts noted may occur out of the order noted in the figures. For example, two figures shown in succession may in fact be executed substantially concurrently or may sometimes be executed in the reverse order, depending upon the functionality and acts involved.

[0030] As used herein, the term "about" means that dimensions, sizes, formulations, parameters, shapes, and other quantities and characteristics are not and need not be exact, but may be approximated and/or larger or smaller, as desired, reflecting tolerances, conversion factors, rounding off, measurement error and the like, and other factors known to those of skill. Further, unless otherwise stated, the term "about" shall expressly include "exactly."

[0031] The term "mobile application" refers to an application executing on a mobile device such as a smartphone, tablet, and/or web browser on any computing device.

[0032] The terms "customer," "client," and "user" refer to an entity, e.g. a human, using the agent-buyer matching mobile application including any software or smart device application(s) associated with the invention. The term user herein refers to one or more users.

[0033] The term "invention" or "present invention" refers to the invention being applied for via the patent application with the title "Real Estate Agent and Buyer Real-time

Online Matching Service." Invention may be used interchangeably with ZREUL (if this is an acronym, you need to state what the letters stand for) System.

[0034] The term "connection" refers to connecting any component as defined below by any means, including but not limited to, a wired connection(s) using any type of wire or cable for example, including but not limited to, coaxial cable(s), fiberoptic cable(s), ethernet cable(s) or wireless connection(s) using any type of frequency/frequencies or radio wave(s). Some examples are including below in this application.

[0035] The terms "communicate" or "communication" refer to any component(s) connecting with any other component(s) in any combination for the purpose of the connected components to communicate and/or transfer data to and from any components and/or control any settings.

[0036] In general, the present disclosure relates to a system and method for providing a real estate buying aid. To better understand the present invention, FIG. **1** illustrates an example embodiment for a system **100** for providing real estate agent and buyer matching according to the present invention. Buyers would search for homes directly or engage with an agent. Once the buyer had an interest in a property they would contact the agent to show with hopes of writing a contract.

[0037] The ZREUL System **100** attempts to change an outdated purchase cycle by allowing buyers to search freely and when they are ready to go look, these buyers may engage or hire an on demand local agent that indicates that he/she is available to meet at any particular moment in time. Using a buyer's mobile application **102**, the buyers may search for available local agents to show one or more properties for sale **121-122**. An available real estate agent has indicated that he/she is currently available using the agent's mobile application **101** and the mobile application provides a current location to a ZREUL system **100** web server **103**.

[0038] Because the mobile application **101-102** typically executes on a smartphone or similar mobile device, these mobile applications may obtain an accurate current position as most smartphones contain a GPS receiver that is capable of sharing location data with any application on the device. When a buyer uses his/her mobile application **102** to search for an available agent, the mobile application **102** may obtain from the web server **103** identities of any agent currently indicating availability using the agent mobile application **101**. The buyers may choose an agent who is closest to their current location or closest to a property of interest **121-122**.

[0039] Use of the system **100** permits buyers to locate an available agent when they are ready to see a property while permitting the agents to engage in other activities in their area while they are still available to meet buyers **111**. When an agent meets with a buyer, he/she may change their status to busy, for example, using the agent mobile application **101**. Such a system **100**, provides instant gratification to both parties and allows both of them to meet when it is convenient without a lot of advance planning.

[0040] The invention may use any type of network such as a single network, multiple networks of a same type, or multiple networks of different types which may include one or more of a direct connection between devices, including but not limited to a local area network (LAN), a wide area network (WAN) (for example, the Internet), a metropolitan area network (MAN), a wireless network (for example, a general packet radio service (GPRS) network), a long term evolution (LTE) network, a telephone network (for example, a Public Switched Telephone Network or a cellular network), a subset of the Internet, an ad hoc network, a fiber optic network (for example, a fiber optic service (often known as FiOS) network), or any combination of the above networks.

[0041] Smart devices mentioned herein the present application may also use one or more sensors to receive or send signals, such as wireless signals for example, Bluetooth™, wireless fidelity, infrared, Wi-Fi, or LTE. Any smart device mentioned in this application may be connected to any other component or smart device via wired communications (e.g., conductive wire, coaxial cable, fiber optic cable, ethernet cable, twisted pair cable, transmission line, waveguide, etc.), or a combination of wired and wireless communications. The invention's method and/or system may use a single server device or a collection of multiple server devices and/or computer systems.

[0042] The systems and methods described above, may be implemented in many different forms of applications, software, firmware, and hardware. The actual software or smart device application codes or specialized control software, hardware or smart device application(s) used to implement the invention's systems and methods is not limiting of the implementation. Thus, the operation and behavior of the systems and methods were described without reference to the specific software or firmware code. Software, smart device application(s), firmware, and control hardware can be designed to implement the systems and methods based on the description herein.

[0043] This new invention also has the ability to manage, control or communicate with multiple buyers and real estate agents from one or more server or computer system locations without multiple interventions.

[0044] While all of the above functions are described to be provided to users via a mobile application on a smartphone, one of ordinary skill will recognize that any computing device including tablets, laptops, and general purpose computing devices may be used as well. In at least one embodiment, all of the services described herein are provided using web pages being accessed from the web server **201** using a web browser such as Safari™, Firefox™, Chrome™ DuckDuckGo™, and the like. All of the screen examples described herein show user interface elements that provide the functionality of the present invention. The arrangement, organization, presentation, and use of particular user input/output (I/O) elements including hyperlinks, buttons, text fields, scrolling lists, and similar I/O elements are shown herein for example embodiments only to more easily convey the features of the present invention. The scope of the present invention should not be interpreted as being limited by any of these elements unless expressly recited within the attached claims.

[0045] For the purposes of the example embodiment of FIG. **1**, various functions are shown to be performed on different programmable computing devices that communicate with each other over the Internet **105**. These computing devices may include smartphones **101***a*, laptop computers **101***b*, tablets (not shown), and similar devices so long as the disclosed functionality of the mobile application described herein is supported by the particular computing device. One of ordinary skill will recognize that this functionality is

grouped as shown in the embodiment for clarity of description. Two or more of the processing functions may be combined onto a single processing machine. Additionally, it may be possible to move a subset of processing from one of the processing systems shown here and retain the functionality of the present invention. The attached claims recite any required combination of functionality onto a single machine, if required, and all example embodiments are for descriptive purposes.

[0046] For all of the above devices that are in communication with each other, some or all of them need not be in continuous communication with each other, unless expressly specified otherwise. In addition, devices that are in communication with each other may communicate directly or indirectly through one or more communication means or intermediaries, logical or physical.

[0047] A description of an aspect with several components in communication with each other does not imply that all such components are required. To the contrary, a variety of optional components may be described to illustrate a wide variety of possible aspects, and in order to more fully illustrate one or more aspects. Similarly, although process steps, method steps, algorithms or the like may be described in a sequential order, such processes, methods, and algorithms may generally be configured to work in alternate orders, unless specifically stated to the contrary. In other words, any sequence or order of steps that may be described in this patent application does not, in and of itself, indicate a requirement that the steps be performed in that order. The steps of described processes may be performed in any order practical. Further, some steps may be performed simultaneously despite being described or implied as occurring non-simultaneously (e.g., because one step is described after the other step). Moreover, the illustration of a process by its depiction in a drawing does not imply that the illustrated process is exclusive of other variations and modifications thereto, does not imply that the illustrated process or any of its steps are necessary to one or more of the aspects, and does not imply that the illustrated process is preferred. Also, steps are generally described once per aspect, but this does not mean they must occur once, or that they may only occur once each time a process, method or algorithm is carried out or executed. Some steps may be omitted in some aspect or some occurrences, or some steps may be executed more than once in a given aspect or occurrence.

[0048] When a single device or article is described herein, it will be readily apparent that more than one device or article may be used in place of a single device or article. Similarly, where more than one device or article is described herein, it will be readily apparent that a single device or article may be used in place of the more than one device or article.

[0049] The functionality or the features of a device may be alternatively embodied by one or more other devices that are not explicitly described as having such functionality or features. Thus, other aspects need not include the device itself.

[0050] Techniques and mechanisms described or referenced herein will sometimes be described in singular form for clarity. However, it should be appreciated that particular aspects may include multiple iterations of a technique or multiple instantiations of a mechanism unless noted otherwise. Process descriptions or blocks in figures should be understood as representing modules, segments or portions of code which include one or more executable instructions for implementing specific logical functions or steps in the process. Alternate implementations are included within the scope of various aspects in which, for example, functions may be executed out of order from that shown or discussed, including substantially concurrently or in reverse order, depending on the functionality involved, as would be understood by those having ordinary skill in the art.

[0051] Generally, the techniques disclosed herein may be implemented on hardware or a combination of software and hardware. For example, they may be implemented in an operating system kernel, in a separate user process, in a library package bound into network applications, on a specially constructed machine, on an application-specific integrated circuit (ASIC), or on a network interface card.

[0052] Software/hardware hybrid implementations of at least some of the aspects disclosed herein may be implemented on a programmable network-resident machine (which should be understood to include intermittently connected network-aware machines) selectively activated or reconfigured by a computer program stored in memory. Such network devices may have multiple network interfaces that may be configured or designed to utilize different types of network communication protocols. A general architecture for some of these machines may be described herein in order to illustrate one or more exemplary means by which a given unit of functionality may be implemented. According to specific aspects, at least some of the features or functionalities of the various aspects disclosed herein may be implemented on one or more general-purpose computers associated with one or more networks, such as for example, an end-user computer system, a client computer, a network server or other server system, a mobile computing device (e.g., tablet computing device, mobile phone, smartphone, laptop or other appropriate computing device), a consumer electronic device, a music player or any other suitable electronic device, router, switch or other suitable device, or any combination thereof. In at least some aspects, at least some of the features or functionalities of the various aspects disclosed herein may be implemented in one or more virtualized computing environments (e.g., network computing clouds, virtual machines hosted on one or more physical computing machines or other appropriate virtual environments).

[0053] Referring now to FIG. **2***a*, there is a block diagram depicting an exemplary computing device **10** suitable for implementing at least a portion of the features or functionalities disclosed herein. The computing device **10** may be, for example, any one of the computing machines listed in the previous paragraph, or indeed any other electronic device capable of executing software- or hardware-based instructions according to one or more programs stored in memory. The computing device **10** may be configured to communicate with a plurality of other computing devices, such as clients or servers, over communications networks such as a wide area network, a metropolitan area network, a local area network, a wireless network, the Internet or any other network, using known protocols for such communication, whether wireless or wired.

[0054] In one aspect, the computing device **10** includes one or more central processing units (CPUs) **12**, one or more interfaces **15**, and one or more buses **14** (such as a peripheral component interconnect (PCI) bus). When acting under the control of appropriate software or firmware, a CPU **12** may

be responsible for implementing specific functions associated with the functions of a specifically configured computing device or machine. For example, in at least one aspect, a computing device **10** may be configured or designed to function as a server system utilizing a CPU **12**, local memory **11** and/or remote memory **16**, and interface(s) **15**. In at least one aspect, a CPU **12** may be caused to perform one or more of the different types of functions and/or operations under the control of software modules or components, which for example, may include an operating system and any appropriate applications software, drivers, and the like.

[0055] A CPU **12** may include one or more processors **13** such as for example, a processor from one of the Intel, ARM, Qualcomm, and AMD families of microprocessors. In some aspect, processors **13** may include specially designed hardware such as application-specific integrated circuits (ASICs), electrically erasable programmable read-only memories (EEPROMs), field-programmable gate arrays (FPGAs), and so forth, for controlling operations of a computing device **10**. In a particular aspect, a local memory **11** (such as non-volatile random access memory (RAM) and/or read-only memory (ROM), including for example, one or more levels of cached memory) may also form part of a CPU **12**. However, there are many different ways in which memory may be coupled to a system **10**. Memory **11** may be used for a variety of purposes such as, for example, caching and/or storing data, programming instructions, and the like. It should be further appreciated that a CPU **12** may be one of a variety of system-on-a-chip-(SOC) type hardware that may include additional hardware such as memory or graphics processing chips, such as a QUALCOMM SNAPDRAGON™ or SAMSUNG EXYNOS™ CPU as are becoming increasingly common in the art, such as for use in mobile devices or integrated devices.

[0056] As used herein, the term "processor" is not limited merely to those integrated circuits referred to in the art as a processor, a mobile processor, or a microprocessor, but broadly refers to a microcontroller, a microcomputer, a programmable logic controller, an application-specific integrated circuit, and any other programmable circuit.

[0057] In one aspect, interfaces **15** are provided as network interface cards (NICs). Generally, NICs control the sending and receiving of data packets over a computer network; other types of interfaces **15** may, for example, support other peripherals used with a computing device **10**. Among the interfaces that may be provided are ethernet interfaces, frame relay interfaces, cable interfaces, DSL interfaces, token ring interfaces, graphics interfaces, and the like. In addition, various types of interfaces may be provided such as, for example, universal serial bus (USB), serial, Ethernet, FIREWIRE™, THUNDERBOLT™, PCI, parallel, radio frequency (RF), BLUETOOTH™, near-field communications (e.g., using near-field magnetics), 802.11 (WiFi), frame relay, TCP/IP, ISDN, fast ethernet interfaces, gigabit ethernet interfaces, serial ATA (SATA) or external SATA (ESATA) interfaces, high-definition multimedia interfaces (HDMI), digital visual interfaces (DVI), analog or digital audio interfaces, asynchronous transfer mode (ATM) interfaces, high-speed serial interfaces (HSSI), point of sale (POS) interfaces, fiber data distributed interfaces (FDDIs), and the like. Generally, such interfaces **15** may include physical ports appropriate for communication with appropriate media. In some cases, they may also include an independent processor (such as a dedicated audio or video processor, as is common in the art for high-fidelity A/V hardware interfaces) and, in some instances, volatile and/or non-volatile memory (e.g., RAM).

[0058] Although the system shown in FIG. **2***a* illustrates one specific architecture for a computing device **10** for implementing one or more of the aspects described herein, it is by no means the only device architecture on which at least a portion of the features and techniques described herein may be implemented. For example, architectures having one or any number of processors **13** may be used, and such processors **13** may be present in a single device or distributed among any number of devices. In one aspect, a single processor **13** handles communications as well as routing computations, while in other aspects a separate dedicated communications processor may be provided. In various aspects, different types of features or functionalities may be implemented in a system according to the aspect that includes a client device (such as a tablet device or smartphone running client software) and a server system (such as a server system described in more detail below).

[0059] Regardless of network device configuration, the system of an aspect may employ one or more memories or memory modules (for example, remote memory block **16** and local memory **11**) configured to store data, program instructions for the general-purpose network operations or other information relating to the functionality of the aspects described herein (or any combinations of the above). Program instructions may control execution of or comprise an operating system and/or one or more applications, for example. Memory **16** or memories **11**, **16** may also be configured to store data structures, configuration data, encryption data, historical system operations information or any other specific or generic non-program information described herein.

[0060] Because such information and program instructions may be employed to implement one or more systems or methods described herein, at least some network device aspects may include non-transitory machine-readable storage media, which, for example, may be configured or designed to store program instructions, state information, and the like for performing various operations described herein. Examples of such non-transitory machine-readable storage media include, but are not limited to, magnetic media such as hard disks, floppy disks, and magnetic tape; optical media such as CD-ROM disks; magneto-optical media such as optical disks, and hardware devices that are specially configured to store and perform program instructions, such as read-only memory devices (ROM), flash memory (as is common in mobile devices and integrated systems), solid state drives (SSD) and "hybrid SSD" storage drives that may combine physical components of solid state and hard disk drives in a single hardware device (as are becoming increasingly common in the art with regard to personal computers), memristor memory, random access memory (RAM), and the like. It should be appreciated that such storage means may be integral and non-removable (such as RAM hardware modules that may be soldered onto a motherboard or otherwise integrated into an electronic device) or they may be removable such as swappable flash memory modules (such as "thumb drives" or other removable media designed for rapidly exchanging physical storage devices), "hot-swappable" hard disk drives or solid state drives, removable optical storage disks, or other such

removable media, and that such integral and removable storage media may be utilized interchangeably. Examples of program instructions include both object code, such as may be produced by a compiler, machine code, such as may be produced by an assembler or a linker, byte code, such as may be generated by for example by a JAVA™ compiler and may be executed using a JAVA™ virtual machine or equivalent, or files containing higher level code that may be executed by the computer using an interpreter (for example, scripts written in Python™, Perl™, Ruby™, Groovy™, or any other scripting language).

[0061] In some aspects, systems may be implemented on a standalone computing system. Referring now to FIG. **2***b*, there is a block diagram depicting a typical exemplary architecture of one or more aspects or components thereof on a standalone computing system. A computing device **20** includes processors **21** that may run software that carry out one or more functions or applications of aspects, such as for example a client application **24**. Processors **21** may carry out computing instructions under control of an operating system **22** such as, for example, a version of MICROSOFT WINDOWS™ operating system, APPLE macOS™ or iOS™ operating systems, some variety of the LINUX™ operating system, ANDROID™ operating system, or the like. In many cases, one or more shared services **23** may be operable in system **20**, and may be useful for providing common services to client applications **24**. Services **23** may, for example, be WINDOWS™ services, user-space common services in a LINUX™ environment or any other type of common service architecture used with an operating system **21**. Input devices **28** may be of any type suitable for receiving user input including, for example, a keyboard, touchscreen, microphone (for example, for voice input), mouse, touchpad, trackball or any combination thereof. Output devices **27** may be of any type suitable for providing output to one or more users, whether remote or local to system **20**, and may include, for example, one or more screens for visual output, speakers, printers or any combination thereof. Memory **25** may be RAM having any structure and architecture known in the art for use by processors **21**, for example to run software. Storage devices **26** may be any magnetic, optical, mechanical, memristor or electrical storage device for storage of data in digital form (such as those described above, referring to FIG. **2***a*). Examples of storage devices **26** include flash memory, magnetic hard drive, CD-ROM, and the like.

[0062] In some aspects, systems may be implemented on a distributed computing network, such as one having any number of clients and/or servers. Referring now to FIG. **2***c*, there is a block diagram depicting an exemplary architecture **30** for implementing at least a portion of a system according to one aspect on a distributed computing network. According to the aspect, any number of clients **33** may be provided. Each client **33** may run software for implementing client-side portions of a system; clients may comprise a system **20** such as that illustrated in Fig. B. In addition, any number of servers **32** may be provided for handling requests received from one or more clients **33**. Clients **33** and servers **32** may communicate with one another via one or more electronic networks **31**, which may be in various aspects any Internet, wide area network, mobile telephony network (such as CDMA or GSM cellular networks), wireless network (such as WiFi, WiMAX, LTE, and so forth) or local area network (or indeed any network topology known in the art; the aspect does not prefer any one network topology over another). Networks **31** may be implemented using any known network protocols, including, for example, wired and/or wireless protocols.

[0063] In addition, in some aspects, servers **32** may call external services **37** when needed to obtain additional information, or to refer to additional data concerning a particular call. Communications with external services **37** may take place, for example, via one or more networks **31**. In various aspects, external services **37** may comprise web-enabled services or functionality related to or installed on the hardware device itself. For example, in one aspect where client applications **24** are implemented on a smartphone or other electronic device, client applications **24** may obtain information stored on a server system **32** in the Cloud or on an external service **37** deployed on one or more of a particular enterprise's or user's premises. In addition to local storage on servers **32**, remote storage **38** may be accessible through the network(s) **31**.

[0064] In some aspects, clients **33** or servers **32** (or both) may make use of one or more specialized services or appliances that may be deployed locally or remotely across one or more networks **31**. For example, one or more databases **34** in either local or remote storage **38** may be used or referred to by one or more aspects. It should be understood by one having ordinary skill in the art that databases in storage **34** may be arranged in a wide variety of architectures and use a wide variety of data access and manipulation means. For example, in various aspects one or more databases in storage **34** may comprise a relational database system using a structured query language (SQL), while others may comprise an alternative data storage technology such as those referred to in the art as "NoSQL" (for example, HADOOP CASSANDRA™, GOOGLE BIGTABLE™, and so forth). In some aspects, variant database architectures such as column-oriented databases, in-memory databases, clustered databases, distributed databases, or even flat file data repositories may be used according to the aspect. It will be appreciated by one having ordinary skill in the art that any combination of known or future database technologies may be used as appropriate, unless a specific database technology or a specific arrangement of components is specified for a particular aspect described herein. Moreover, it should be appreciated that the term "database" as used herein may refer to a physical database machine, a cluster of machines acting as a single database system or a logical database within an overall database management system. Unless a specific meaning is specified for a given use of the term "database," it should be construed to mean any of these senses of the word, all of which are understood as a plain meaning of the term "database" by those having ordinary skill in the art.

[0065] Similarly, some aspects may make use of one or more security systems **36** and configuration systems **35**. Security and configuration management are common information technology (IT) and web functions, and some amount of each are generally associated with any IT or web system. It should be understood by one having ordinary skill in the art that any configuration or security subsystems known in the art now or in the future may be used in conjunction with aspects without limitation, unless a specific security **36** or configuration system **35** or approach is required by the description of any specific aspect.

[0066] FIG. **2***d* shows an exemplary overview of a computer system **40** as may be used in any of the various locations throughout the system. It is exemplary of any computer that may execute code to process data. Various modifications and changes may be made to a computer system **40** without departing from the broader scope of the system and method disclosed herein. A CPU **41** is connected to bus **42**, to which bus is also connected to memory **43**, nonvolatile memory **44**, display **47**, I/O unit **48**, and network interface card (NIC) **53**. An I/O unit **48** may, typically, be connected to peripherals such as a keyboard **49**, pointing device **50**, hard disk **52**, real-time clock **51**, camera **57**, and other peripheral devices. A NIC **53** connects to a network **54**, which may be the Internet or a local network, which local network may or may not have connections to the Internet. The system may be connected to other computing devices through the network via a router **55**, wireless local area network **56** or any other network connection. Also shown as part of a system **40** is a power supply unit **45** connected, in this example, to a main alternating current (AC) supply **46**. Not shown are batteries that could be present and many other devices and modifications that are well known, but are not applicable to, the specific novel functions of the current system and method disclosed herein. It should be appreciated that some or all components illustrated may be combined, such as in various integrated applications, for example Qualcomm or Samsung system-on-a-chip (SOC) devices, or whenever it may be appropriate to combine multiple capabilities or functions into a single hardware device (for instance, in mobile devices such as smartphones, video game consoles, in-vehicle computer systems such as navigation or multimedia systems in automobiles or other integrated hardware devices).

[0067] In various aspects, functionality for implementing systems or methods of various aspects may be distributed among any number of client and/or server components. For example, various software modules may be implemented for performing various functions in connection with the system of any particular aspect, and such modules may be implemented to run on server and/or client components.

[0068] FIG. **3** illustrates another example embodiment of a block diagram of a buyer mobile application **102** within a system for an online, real-time buyer and agent matching service according to the present invention. The buyer mobile application **102** communicates with the web server **103** and an agent mobile application **101** over the Internet **110**. The buyer mobile application **102** comprises a set of processing components to perform the processing described herein. The buyer set of processing components includes a buyer controller **301**, a buyer web interface **302**, a buyer property locator **303**, a buyer map router **304**, a buyer query generator **305**, a buyer property searcher **306**, a buyer messenger **307**, and a buyer UI **308**.

[0069] The buyer controller **301** generates and sends available agent queries via the buyer web interface **302** when requested by a buyer using the buyer mobile application **102** through the buyer UI **308**. The buyer controller **301** also obtains current GPS location data from the buyer's smartphone for use in providing location data to the web server **103** and the agent mobile application **101**. The buyer controller **301** interacts with the remaining buyer set of processing components to generate messages and data sent to one or more agent mobile applications **101** and the web server **103** as needed. The buyer controller **301** stores its data for use when operating into a local buyer datastore **310** as needed.

[0070] The buyer web interface **302** connects the buyer mobile application **102** to the Internet **110** to send and receive communication from one or more agent mobile applications **101** and the web server **103**. The buyer web interface **302** performs all necessary data formatting, data packet creation, data encryption for security, and data transmission and reception when the buyer mobile application **102** communicates with other processing systems disclosed herein. The buyer web interface **302** is also responsible for ensuring reception of any communications to other computing systems, the buyer user interface (UI) **308**, and for logging any errors or attempts to hack into the local buyer data store **310**. The buyer controller **301** stores its data for use when operating into a local buyer datastore **310** as needed.

[0071] The buyer agent locator **303** searches current available agent data on the web server to locate an available agent near the buyer's current location. The buyer agent locator **303** obtains current GPS location data from a GPS receiver present in the mobile devices and may also determine the buyer's current location using Wifi hot spot data, and smartphone cell tower data when GPS data is unavailable. The buyer agent locator **303** presents the search results to the buyer via the buyer UI **308**. The buyer may select an available agent from these search results and pass the available agent data to the buyer query generator **305** to contact the agent. The buyer property locator **303** stores its operating data for use when operating into a local buyer datastore **310** as needed.

[0072] The buyer map router **304** generates a route to a desired property address from the buyer's current location. The buyer map router **304** obtains current GPS location data from a GPS receiver present in the mobile devices and may also determine the buyer's current location using Wifi hot spot data, and smartphone cell tower data when GPS data is unavailable. The buyer map router **304** may use map and location data from the web server **103** or other online map and route travel service such as Apple Maps™, Google Maps™, and similar web services that provide application programming interfaces (APIs) for use by applications on mobile devices. A route generated by the buyer map router **304** may be optimized to generate a route having the lowest travel time, the lowest tolls, and the lowest amount of congestion from accidents, construction and the like. The buyer map router **304** stores saved addresses and routes on available properties and related operating data for use when operating into a local buyer datastore **310** as needed.

[0073] The buyer query generator **305** generates a buyer query requesting an available agent, as identified in data obtained by the buyer agent locator **303**, and transmits the buyer query to the agent mobile application **101**. The buyer query generator **305** receives all responses to these buyer queries and presents them to the buyer via the buyer UI **308**. The buyer query generator **305** stores generated queries, the corresponding responses, and related operating data for use when operating into a local buyer datastore **310** as needed.

[0074] The buyer property searcher **306** locates properties currently available for sale in a geographic area near the buyer's current location. The buyer agent searcher **306** obtains current GPS location data from a GPS receiver present in the mobile devices. The buyer locator **303** may

maintain a last known location for use when GPS data is unavailable and may also determine a current location using Wifi hot spot data, and smartphone cell tower data when GPS data is unavailable. The buyer property searcher **306** contacts the web server to obtain the identity and address of available properties from the web server **103** and online multiple listing service (MLS) web servers. Results of these searches are provided to the buyer via the buyer UI **308** so that the buyer may attempt to obtain an agent and arrange for an immediate showing. Any selected property address may be passed to the buyer map-router **304** to obtain directions from the buyer's current location. The buyer property searcher stores prior searches and related operating data for use when operating into a local buyer datastore **310** as needed.

[0075] The buyer messenger **307** permits the buyer to send and receive messages with one or more available agents. The buyer messenger **307** generates and transmits messages to an agent mobile application **101** once the buyer and agent have connected via a buyer query. The buyer messenger **307** receives responses to the buyer's messages from the agent mobile application **101** once the buyer and agent have connected via a buyer query. The buyer controls the initiation of all interaction to minimize potential buyers from unsolicited messages. The buyer messenger **307** retains all messages sent and received to assist the buyer and agent to maintain a relationship over time as desired. The buyer messenger **307** stores all of the messages to and from agents for later use into a local buyer datastore **310** as needed.

[0076] The buyer UI **308** provides input and output processing to provide a buyer with messages and data needed to perform the property searches, available agent searches, communications with agents, and mapping routes to properties. This buyer UI **308** also accepts commands from the buyer to instruct the application to perform these tasks.

[0077] FIG. **4** illustrates another example embodiment of a block diagram of an agent mobile application within a system for an online, real-time buyer and agent matching service according to the present invention. The agent mobile application **101** communicates with the web server **103** and a buyer mobile application **102** over the Internet **110**. The agent mobile application **101** comprises a set of processing components to perform the processing described herein. The agent set of processing components includes an agent controller **401**, an agent web interface **402**, an agent locator **403**, an agent map router **404**, an agent query processor **405**, an agent property searcher **306**, an agent messenger **406**, an agent customer relationship manager (CRM) **407**, an agent notifier **408**, and an agent UI **409**.

[0078] The agent controller **401** receives available agent queries via the agent web interface **402** when it arrives from the mobile application **101**. The agent controller **401** also obtains current GPS location data from the agent locator **403** for use in providing location data to the web server **103** and the buyer mobile application **102**. The agent controller **401** interacts with the remaining agent set of processing components to generate messages and data sent to the buyer mobile application **102** and the web server **103** as needed. The agent controller **401** stores its data for use when operating into a local agent datastore **410** as needed.

[0079] The agent web interface **402** connects the mobile application **101** to the Internet **110** to send and receive communication from one or more buyer mobile applications **102** and the web server **103**. The agent web interface **402** performs all necessary data formatting, data packet creation, data encryption for security, and data transmission and reception when the agent mobile application **101** communicates with other processing systems disclosed herein. The agent web interface **402** is also responsible for ensuring reception of any communications to other computing systems and for logging any errors or attempts to hack into the its local data store **410**.

[0080] The agent locator **403** obtains current GPS location data from a GPS receiver present in the mobile devices. The agent locator **403** also provides the agent's current location periodically to the web server **103** for use in generating and maintaining locations and identities of available agents for buyers to locate. The agent locator **403** may maintain a last known location for use when current location data is unavailable. The agent locator **403** may also determine a current location using Wifi hot spot data, and smartphone cell tower data when GPS data is unavailable.

[0081] The agent map router **404** generates a route to a desired property address from the agent's current location. The agent map router **404** obtains current GPS location data from a GPS receiver present in the mobile devices and may also determine the agent's current location using Wifi hot spot data, and smartphone cell tower data when GPS data is unavailable. The agent map router **404** may use map and location data from the web server **103** or other online map and route travel service such as Apple Maps™, Google Maps™, and similar web services that provide APIs for use by applications on mobile devices. A route generated by the agent map router **404** may be optimized to generate a route having the lowest travel time, the lowest tolls, and the lowest amount of congestion from accidents, construction and the like. The agent map router **304** stores saved addresses and routes on available properties and related operating data for use when operating into a local agent datastore **310** as needed.

[0082] The agent query processor **405** receives a buyer query requesting an available agent, as identified in data obtained from an agent search, and presents them the buyers via the agent **409**. The agent query processor **405** obtains input from the agent whether to accept the query and generates a response to the buyer query that it then transmits to the buyer mobile application **102**. The buyer query generator **305** receives all responses to these buyer queries and presents them the buyers via the buyer UI **308**.

[0083] The agent messenger **406** permits the agent to receive and respond to messages with an interested buyer. The agent messenger **406** generates and transmits messages to a buyer mobile application **102** once the buyer and agent have connected via a buyer query. The agent messenger **406** receives responses to the agent's messages from the agent mobile application **101** once the buyer and agent have connected via a buyer query. The buyer controls the initiation of all interaction to minimize potential buyers from unsolicited messages. The agent messenger **406** retains all messages sent and received to assist the buyer and agent to maintain a relationship over time as desired. The agent messenger **406** stores all of the messages to and from agents for later use into a local buyer datastore **410** as needed.

[0084] The agent CRM **407** allows the agent to organize and retain interested buyer information that is useful in maintaining an ongoing business relationship. The agent CRM **307** may retain all buyer queries and corresponding responses, and any follow-up interactions to permit an agent

to be able to review the efforts made to assist each particular buyer. The agent CRM **407** consolidates all of the agent's business activities within the agent mobile application **101** that the agent routinely uses to inform buyers of their availability and current location. As such, the agent may search and respond to a buyer whenever they are able to use their mobile device. The agent CRM **407** stores all buyer interaction and message data with buyers into a local buyer datastore **410** as needed.

[0085] The agent notifier **408** generates notifications to the agent when buyer queries and messages are received. Because the agent identifies when he/she is available, the agent may be involved in other activities while awaiting a query. The receipt of a buyer query when they have announced and identified themselves to be available should generate a timely, if not immediate response to the buyer. The agent notifier **408** activates any notification mechanism supported by the mobile device. The notifications may include alert and alarm sounds, perceptible vibration, and visual indications that the mobile application **101** is seeking the agent's attention. The agent may set preferences in the agent notifier **408** that are associated with the particular alert and alarm sounds, the sound volume, the nature and length of the vibrations, and the level of intrusiveness desired by the agent. The agent notifier **408** stores all notification preferences and a log of receipt of all buyer queries into a local buyer datastore **410** as needed.

[0086] FIG. **5** illustrates another example embodiment of a block diagram of a buyer's mobile application within a system for providing an online, real-time buyer and agent matching service according to the present invention. The web server **103** communicates with the agent mobile application **101** and a buyer mobile application **102** over the Internet **110**. The web server **103** comprises a set of processing components to perform the processing described herein. The web server set of processing components include an agent tracker **501**, a server web interface **502**, a user registration processor **503**, a user manager **504**, a query manager **505**, an offer manager **506**, a notification manager **507**, and a user map and router **508**.

[0087] The agent tracker **501** communications with agent mobile application **101** to maintain location information for an agent when logged into the system and indicating that they are available to meet with buyers. The agent mobile application **101** communicates with the agent tracker **501** to set a status of offline, available, and busy. The agent tracker **501** provides buyers mobile application **102** with locations of nearby available agents in response to a request from the buyers. The agent tracker **501** works with the user map and router **508** to provide travel routes for users to meet each other at a desired property.

[0088] The server web interface **502** connects the web server **103** to the Internet **110** to send and receive communication from one or more buyer mobile applications **102** and one or more agent mobile applications **101**. The agent web interface **402** performs all necessary data formatting, data packet creation, data encryption for security, and data transmission and reception when the agent mobile application **101** communicates with other processing systems disclosed herein. The agent web interface **402** is also responsible for ensuring reception of any communications to other computing systems and for logging any errors or attempts to hack into the its local data store **410**.

[0089] The user registration processor **503** receives and processes requests to create user accounts for both buyers and agents from their respective mobile applications. The user registration processor **503** accepts required data from each new user and populates profile information into the datastore for use when matching and communicating with parties using the mobile applications. The user registration processor **503** works with the user manager **504** that performs the online interaction with users interacting with the web server **103**.

[0090] The user manager **504** processes user log in attempts to authenticate the users via their respective mobile applications. The user manager **504** may utilize biometric data verification in the mobile applications as a form of authentication. The user manager **504** may also use usernames and passwords, as well as multi-factor authentication to authenticate users before permitting them to process requests with the web server **103**.

[0091] The query manager **505** connects buyer's queries to connect with an agent with the requested nearby agent via their respective mobile applications. All communication between the mobile applications passes through the server for monitoring, logging, and status monitoring. The query manager **505** receives a buyer's query, passes the query to the agent mobile application **101** and receives a response that is then forwarded to the buyer's mobile application **102**.

[0092] The offer manager **506** receives and processes all purchase offers for a property from buyer's mobile application **102**. The offer manager **506** notifies all of the relevant parties, including agent mobile applications for the buyers and the sellers.

[0093] The notification manager **507** provides all system notifications to buyers mobile applications **102** and agent mobile applications **101** for appointments, messages, and offers as needed.

[0094] The user map and router **508** generates travel routes for buyer's and agents to travel from a current location to a meeting location and/or a property address. The user map and router **508** provides maps of the local areas to all users and the maps used by the agent tracker **501** when communicating available agent location data to buyers mobile application **102**.

[0095] FIG. **6** illustrates a flowchart corresponding to a method performed by software components providing a system for an online, real-time buyer and agent matching service according to the present invention. The process **600** begins with buyers and agents creating a user account in step **601**. Step **602** attempts to confirm the details of the user account by contacting the user using one or more of the provided contact method such as email telephone voice call, or mobile SMS text. A message may be sent using one or more of the provided communication mechanisms that contains a unique code which is valid for a short period of time. The user is expected to provide the unique code to the system to confirm the user may be contact at the provided address or number. If the confirmation is not successful, step **603** disables the user account, preventing the user from interacting with the web server **103** and system **100**.

[0096] If the confirmation is successful, step **604** documents the confirmation and enables the user account for use with an agent mobile application **101** or a buyer mobile application **102**. Step **605** presents a dashboard of operations that may be performed. Based upon the user's input, the user may choose the user profile operation. The user profile

operation may allow a user to create, view, modify, and delete the user profile in step **606**. Once an operation is completed, the mobile applications **101-102** returns to the dashboard until the user logs out.

[0097] When the user chooses the search homes operation in step **607**, the buyer application **102** generates a search for available properties near the buyer's location. In step **621**, the mobile application requests property data to generate a search report. The property data may be obtained from the web server **103** if a property database is included in the web server or from online services such as Zi**11**ow™, Redfin™, a local MLS, and related services using APIs provided by the services. The search results generated are presented to the buyer for consideration. The buyer may preview what is available in the local market or the buyer can search other markets and locate a local agent through the application. The buyer may also save one or more properties found in the search results into a set of favorites for later retrieval.

[0098] When the buyer identifies a property to preview, the buyer may choose search for available local agents in step **608**. The mobile application **102** contacts the web server to identify and contact available agents in step **622**. The buyer is able to search, filter, favorite and even rate local agents in step **609**.

[0099] When a buyer decides to make an offer on a property, the buyer chooses the make an offer operation in step **610**. The mobile application **102** contacts the web server **103** or other online offer management systems, like Clear Offer™ or Offer Direct™ using a provided API, to submit an offer in the form of an electronic version of a purchase contract on the property in step **623**. A message is sent to notify the agent mobile application **101** for the agent who showed the property that an offer has been made.

[0100] The buyer may also search for additional services to complete the purchase of a desired property in step **611**. These additional services may include services such as getting approved for a mortgage in step **631**, finding a home inspector in step **632**, finding a moving company in step **633** and attempting to list an existing property for sale in step **634**. All of these additional services may be accessed using available web services via the services' APIs.

[0101] FIG. **7** illustrates a flowchart corresponding to a method performed by software components providing an administrator's system for managing an online, real-time buyer and agent matching service according to the present invention. The administrator software operates on the web server **103** to permit a system administrator to maintain the operation of the web server. The admin software includes a global support processor **701**, a global user dashboard **702**, an admin API **703**, and an admin user profile processor **704**.

[0102] The global support processor **701** permits an admin to perform various support operations including log in, notifications, reports, and view/set various settings for the operation of the web server **103**. The global support processor **701** also permits admins to Admin to add, approve registration, disable., and delete. any buyer, agent or provider, to manage. details of any provider, and to view all the requests provider has received. The global support processor **701** permits admins to manage details of any agent, to view property related all the activities of an agents as request acceptance, property shown, offers made etc., to track the location of agents, and to view the ratings and review of any agents and be able to enable/disable those agents.

[0103] The global user dashboard **702** permits an administrator to view a pie chart on the Dashboard. Admin may then use the pie charts for visualizing the app usability ratio, number of queries generated, requests, contacts etc. Admin will he able to view daily stats on the dashboard of the agents, providers and users. Admin will be able to track daily agent and user rides stats on the dashboard.

[0104] The admin user profile processor **703** performs all of the user registration and verification processing when a buyer or an agent create a user account. The admin user profile processor **704** receives all account creation requests and permits the admin to view and verify any new account as well as disable any account as needed.

[0105] The embodiments described herein are implemented as logical operations performed by a computer. The logical operations of these various embodiments of the present invention are implemented (1) as a sequence of computer-implemented steps or program modules running on a computing system and/or (2) as interconnected machine modules or hardware logic within the computing system. The implementation is a matter of choice dependent on the performance requirements of the computing system implementing the invention. Accordingly, the logical operations making up the embodiments of the invention described herein can be variously referred to as operations, steps, or modules.

[0106] Even though particular combinations of features are recited in the present application, these combinations are not intended to limit the disclosure of the invention. In fact, many of these features may be combined in ways not specifically recited in this application. In other words, any of the features mentioned in this application may be included to this new invention in any combination or combinations to allow the functionality required for the desired operations.

[0107] 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. Further, the phrase "based on" is intended to mean "based, at least in part, on" unless explicitly stated otherwise. Any singular term used in this present patent application is applicable to its plural form even if the singular form of any term is used.

[0108] In the present application, all or any part of the invention's software or application(s) or smart device application(s) may be installed on any of the user's or operator's smart device(s), any server(s) or computer system(s) or web application(s) required to allow communication and transfer of content(s) or data between any combination of the components.

What is claimed:

1. A system for providing an online, real-time buyer and agent matching service, the system for interconnecting an agent mobile device, one or more buyer mobile device, and a web server over the Internet, the system comprising:

the agent mobile device comprises:

an agent locator for providing agent current location data to the web server;

an agent query processor for responding to a buyer query for on demand showings of available properties; and

an agent messenger for communicating with the buyer mobile device;

the buyer mobile device comprises:

a buyer agent locator for obtaining identities and locations of one or more agents currently available to show one or more of the available properties;

a buyer query generator for generating a property showing query to one of the currently available agents; and

a buyer messenger for communicating with one or more of the agent messengers; and

the web server comprises:

an agent tracker for communicating with one or more of the agent locators to maintain a set of currently available agents and their respective current locations;

a query manager for receiving and processing requests from one or more buyer agent locators; and

a notification manager for providing all system notifications to the buyer mobile device and agent mobile device regarding appointments, messages, and offers.

2. The system according to claim **1**, wherein the agent locator in the agent mobile device generates available and unavailable messaged to the agent tracker for use in generating the set of currently available agents and their respective current location.

3. The system according to claim **2**, wherein the agent locator obtains current location data from the agent mobile device and periodically transmits the location data to the agent tracker permitting the agent tracker to provide up to date location information to buyer mobile devices.

4. The system according to claim **3**, wherein the agent mobile device generates current location data using a GPS receiver within the agent mobile device.

5. The system according to claim **3**, wherein the agent mobile device further comprises:

an agent notifier for providing notifications to the agent when buyer queries and messages are received;

an agent customer relationship manager for organizing and retaining interested buyer information that is useful in maintaining an ongoing business relationship; and

an agent map-router for providing a route to a desired property address from the agent's current location.

6. The system according to claim **3**, wherein the buyer mobile device further comprises:

a buyer property searcher for obtaining a set of available property listings from an online property searching service; and

a buyer map-router for providing a route to a desired property address from a buyer's current location.

7. The system according to claim **3**, wherein the web server further comprises:

an offer manager for receiving and processing purchase offers for a property from buyer's mobile device; and

a user map and router generating travel routes for buyer and agents to travel from a current location to a meeting location and a property address.

8. The system according to claim **6**, wherein the buyer property searcher obtains available property listings from an online property searching service.

9. The system according to claim **8**, wherein the online property searching service is within the web server.

10. The system according to claim **8**, wherein the online property searching service is a third party web-based service having one or more application programming interfaces for communicating with remote devices.

11. A method for providing an online, real-time buyer and agent matching service, the system for interconnecting an agent mobile device, one or more buyer mobile device, and a web server over the Internet, the method comprising:

contacting the web server with an available agent query;

receiving a set of identities and current locations for one or more available agents from the webs server;

selecting one of the available agents from the set of set of identities and current locations received from the web server;

generating and sending a property showing query for a specific property available for purchase to the one or more available agented selected by a user;

receiving a query response from the mobile device associated with the one or more available agented selected by a user; and

meeting the one or more available agented selected by a user at the specific property available for purchase.

12. The method according to claim **11**, wherein the method further comprising:

receiving a map showing the location of the specific property available for purchase; and

receiving a route to travel to specific property available for purchase.

13. The method according to claim **11**, wherein the method further comprising:

sending and receiving messages with the mobile device associated with the one or more available agented selected by a user regarding the specific property available for purchase.

14. The method according to claim **11**, wherein the method further comprising sending an offer to purchase the specific property to the web server in order to attempt to buy the property.

15. A method for providing an online, real-time buyer and agent matching service, the system for interconnecting an agent mobile device, one or more buyer mobile device, and a web server over the Internet, the method comprising:

receiving an available agent message from the agent mobile device for use in generating a set of currently available agents;

periodically receiving current location data from the agent mobile device to provide up to date location information to buyer mobile devices;

receiving an available agent query from the buyer mobile device;

transmitting the set of currently available agents and their respective current locations to the buyer mobile device; and

receiving a property showing query for a specific property available for purchase from the buyer mobile device intended for the one or more available agented selected by a user.

16. The method according to claim **15**, wherein the method further comprising:

maintaining one or more notification events for sending reminders of an upcoming event to the buyer mobile device and the agent mobile device.

17. The method according to claim **15**, wherein the method further comprising:

providing a set of available property listings from an online property searching service.

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