US 20200193537A1

(19) **United States**

(12) **Patent Application Publication** (10) **Pub. No.: US 2020/0193537 A1**

Beatty et al. (43) **Pub. Date: Jun. 18, 2020**

(54) **DATA AT THE DOOR REAL ESTATE APPLICATION**

(71) Applicant: **CARRIER CORPORATION**, Palm Beach Gardens, FL (US)

(72) Inventors: **Jackson Beatty**, Molalla, OR (US); **Jan Phillips**, Salem, OR (US); **Yenong Qi**, Salem, OR (US); **Jonathan Lush**, Salem, OR (US); **Tom Hill**, Salem, OR (US); **Alissa D. Doose**, Farmington, CT (US)

(73) Assignee: **CARRIER CORPORATION**, Palm Beach Gardens, FL (US)

(21) Appl. No.: **16/613,284**

(22) PCT Filed: **Apr. 20, 2018**

(86) PCT No.: **PCT/US2018/028525**

§ 371 (c)(1),
(2) Date: **Nov. 13, 2019**

Related U.S. Application Data

(60) Provisional application No. 62/507,018, filed on May 16, 2017.

Publication Classification

(51) **Int. Cl.**

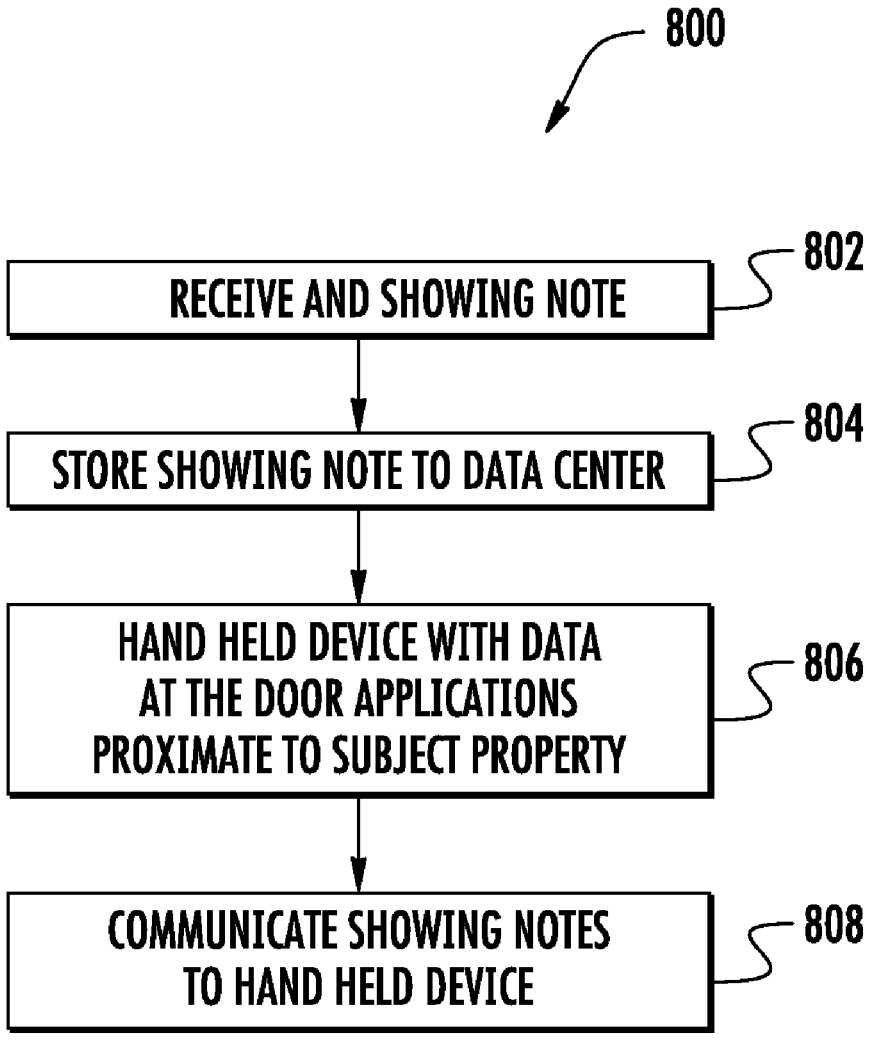
G06Q 50/16	(2006.01)
G06Q 10/10	(2006.01)
H04W 4/30	(2006.01)
H04W 4/02	(2006.01)

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

CPC ***G06Q 50/16*** (2013.01); ***H04W 4/023*** (2013.01); ***H04W 4/30*** (2018.02); ***G06Q 10/10*** (2013.01)

(57) **ABSTRACT**

A method for communicating data for a subject real estate listing including receiving a showing note regarding a subject real estate listing; storing the showing note; and communicating the showing note to a handheld device operating a data at the door application.



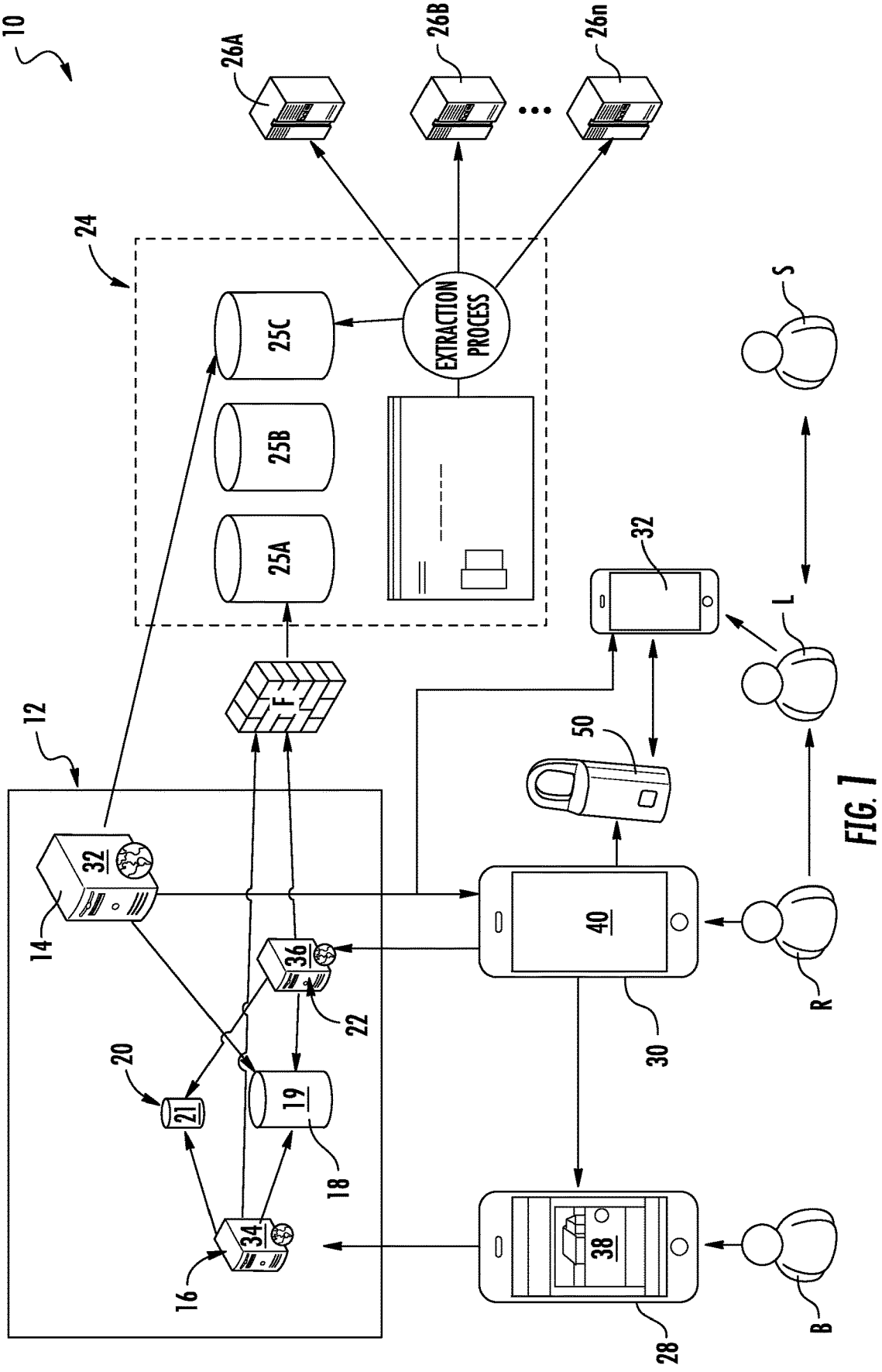

10
12
14
16
18
19
20
21
22
24
25A
25B
25C
26A
26B
26n
28
30
32
34
36
38
40
50
EXTRACTION PROCESS
F
S
L
R
B

FIG. 1

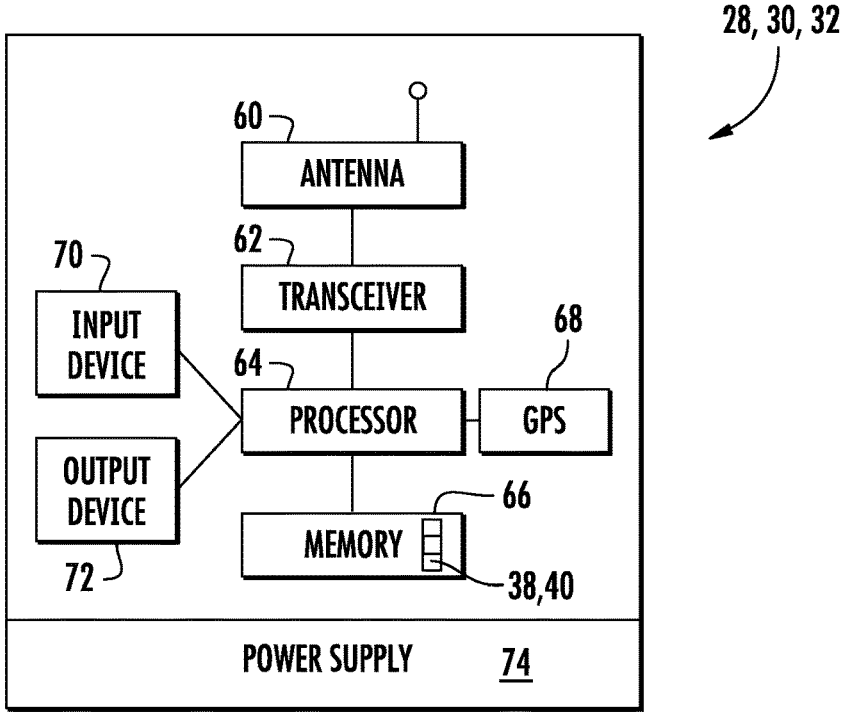

28, 30, 32
60
ANTENNA
62
TRANSCEIVER
70
INPUT DEVICE
68
64
PROCESSOR
GPS
OUTPUT DEVICE
66
MEMORY
72
38,40
POWER SUPPLY
74

FIG. 2

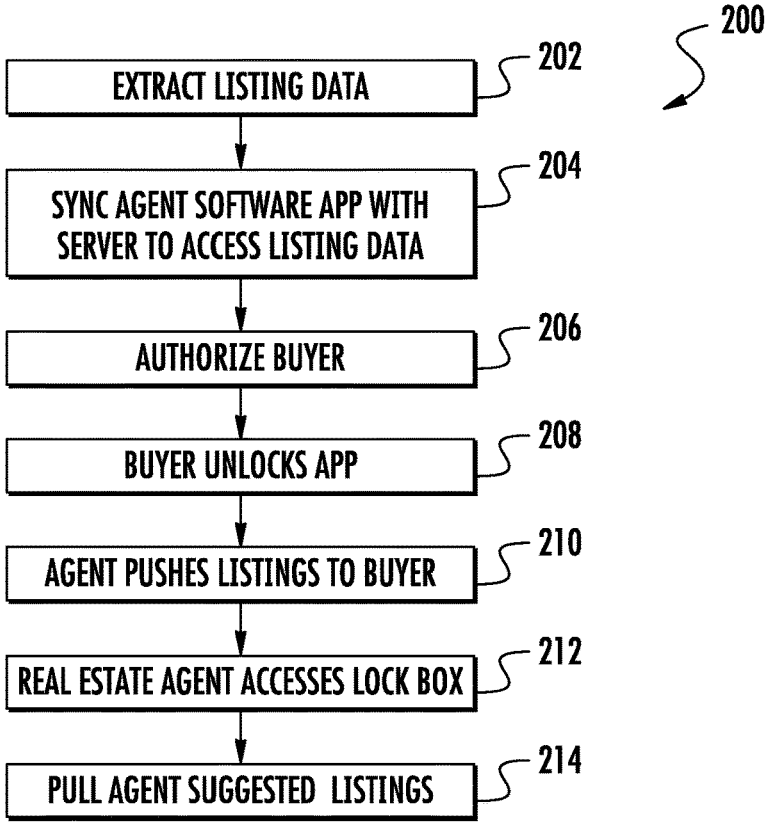

200
EXTRACT LISTING DATA
202
SYNC AGENT SOFTWARE APP WITH SERVER TO ACCESS LISTING DATA
204
AUTHORIZE BUYER
206
BUYER UNLOCKS APP
208
AGENT PUSHES LISTINGS TO BUYER
210
REAL ESTATE AGENT ACCESSES LOCK BOX
212
PULL AGENT SUGGESTED LISTINGS
214

FIG. 3

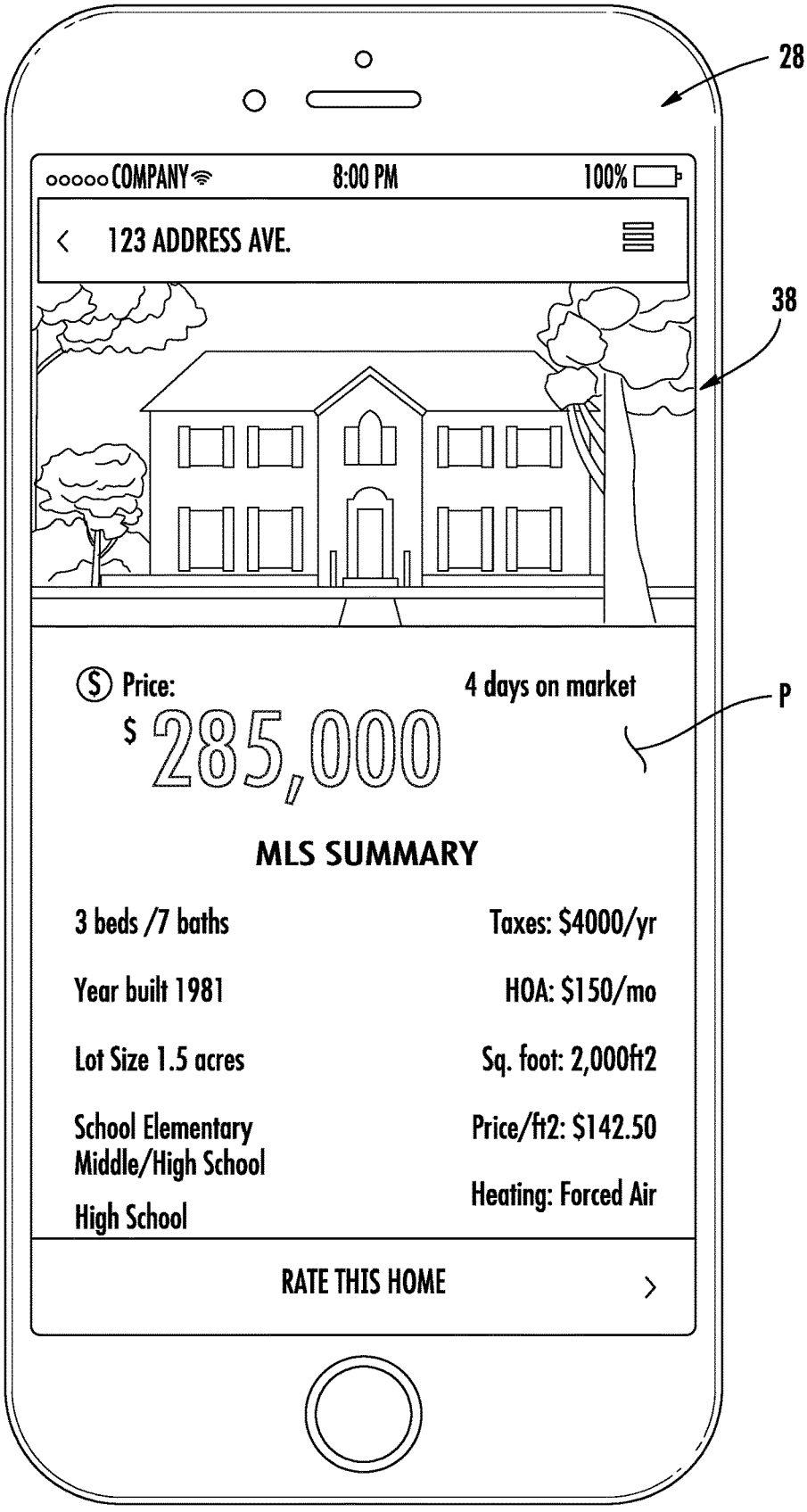

28
COMPANY
8:00 PM
100%
123 ADDRESS AVE.
38
Price:
$ 285,000
4 days on market
P
MLS SUMMARY
3 beds /7 baths
Taxes: $4000/yr
Year built 1981
HOA: $150/mo
Lot Size 1.5 acres
Sq. foot: 2,000ft2
School Elementary
Middle/High School
High School
Price/ft2: $142.50
Heating: Forced Air
RATE THIS HOME

FIG. 4

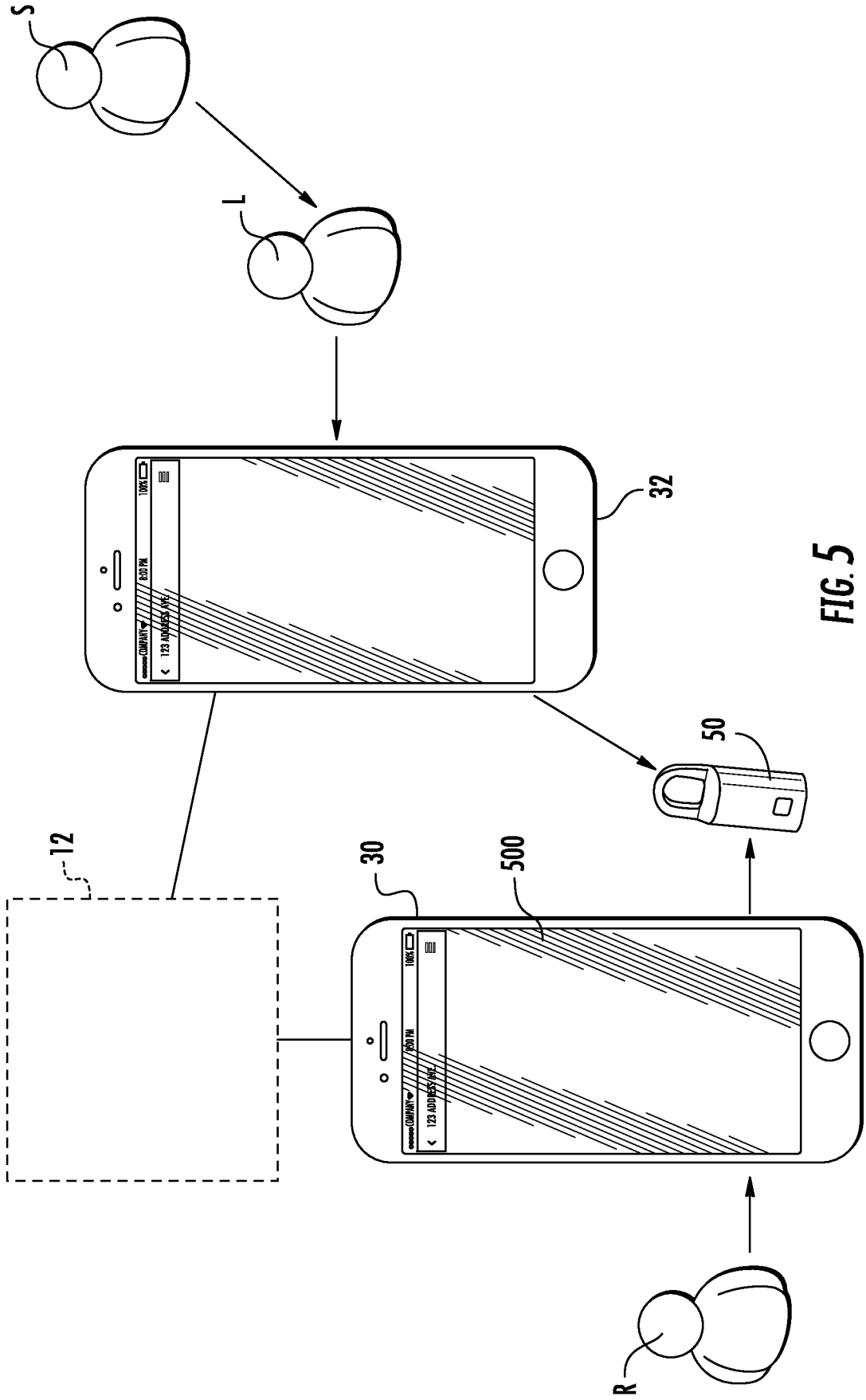


FIG. 5

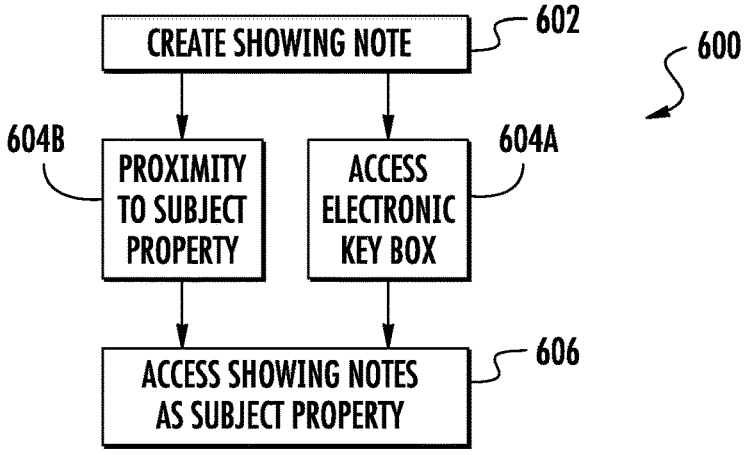

CREATE SHOWING NOTE
602
600
604B
PROXIMITY TO SUBJECT PROPERTY
ACCESS ELECTRONIC KEY BOX
604A
ACCESS SHOWING NOTES AS SUBJECT PROPERTY
606

FIG. 6

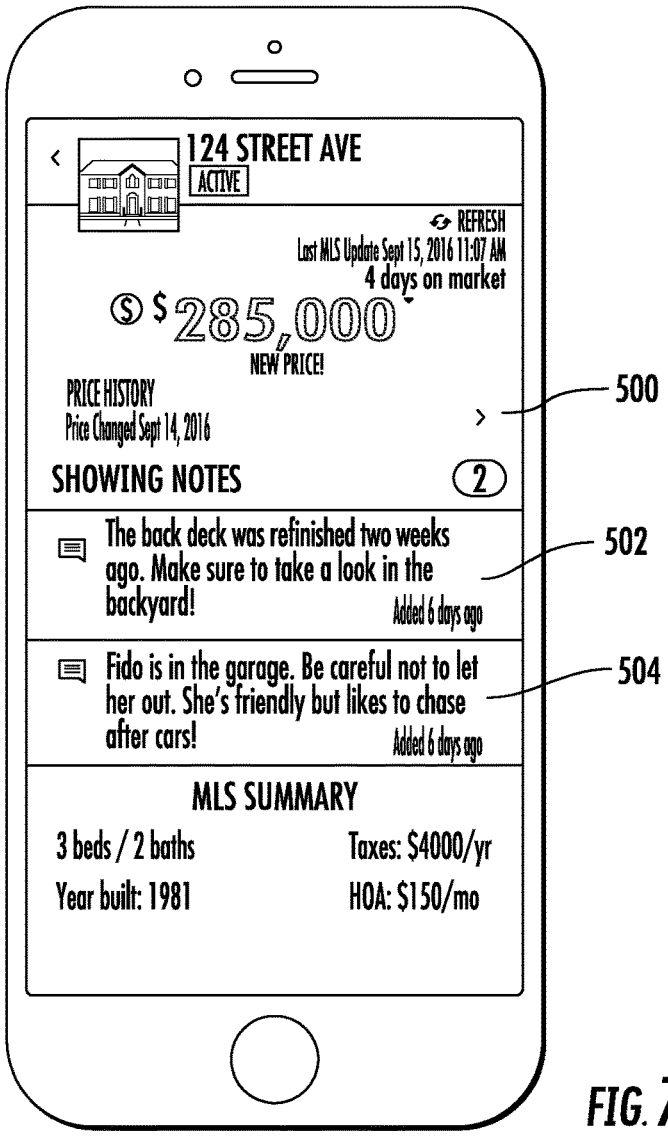

124 STREET AVE
ACTIVE
REFRESH
Last MLS Update Sept 15, 2016 11:07 AM
4 days on market
$285,000
NEW PRICE!
PRICE HISTORY
Price Changed Sept 14, 2016
500
SHOWING NOTES
2
The back deck was refinished two weeks ago. Make sure to take a look in the backyard!
Added 6 days ago
502
Fido is in the garage. Be careful not to let her out. She's friendly but likes to chase after cars!
Added 6 days ago
504
MLS SUMMARY
3 beds / 2 baths
Taxes: $4000/yr
Year built: 1981
HOA: $150/mo

FIG. 7

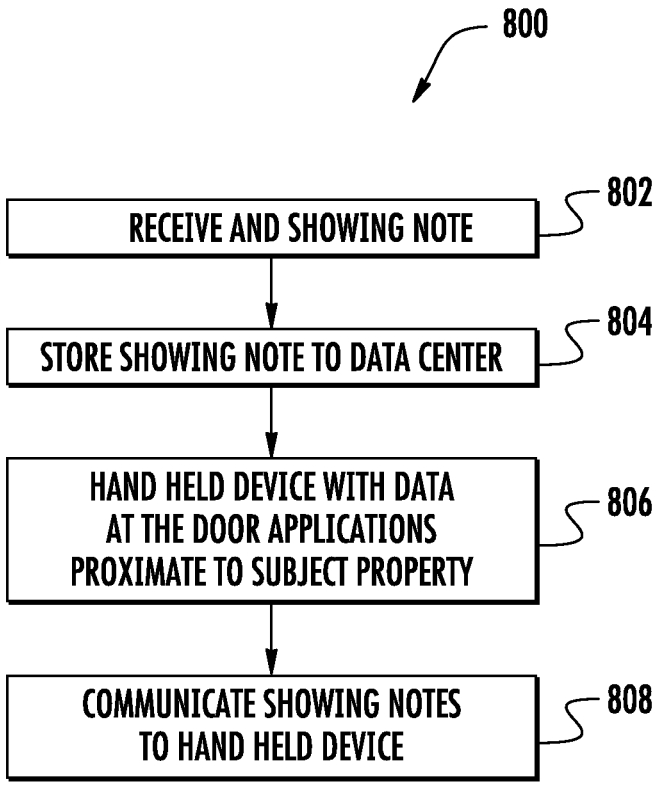

800
RECEIVE AND SHOWING NOTE
802
STORE SHOWING NOTE TO DATA CENTER
804
HAND HELD DEVICE WITH DATA AT THE DOOR APPLICATIONS PROXIMATE TO SUBJECT PROPERTY
806
COMMUNICATE SHOWING NOTES TO HAND HELD DEVICE
808

FIG. 8

DATA AT THE DOOR REAL ESTATE APPLICATION

BACKGROUND

[0001] The present disclosure relates generally to a real estate communication system, and more particularly, to a system and method to provide time sensitive showing notes to a real estate agent who is showing the property.

[0002] In the real estate industry, there exists significant activity relating to the sale of a home that is decoupled from the real estate agent's knowledge. Real estate agents typically carry paper information for the subject property and don't always have up-to-date and relevant data for the subject property. Home owners also don't typically have a way to inform the real estate agent of time sensitive information concerning the property such as the dog will be in the garage the day of the showing.

SUMMARY

[0003] A method for communicating data for a subject real estate listing according to one disclosed non-limiting embodiment of the present disclosure includes receiving a showing note regarding a subject real estate listing; storing the showing note; communicating the showing note to a handheld device operating a data at the door application.

[0004] A further aspect of the present disclosure includes time sensitive data in the showing note.

[0005] A further aspect of the present disclosure includes MLS data in the showing note.

[0006] A further aspect of the present disclosure includes data not in an MLS listing in the showing note.

[0007] A further aspect of the present disclosure includes local attractions in the showing note.

[0008] A further aspect of the present disclosure includes communicating the showing note to the handheld device operating the data at the door application in response to a proximity to the subject property.

[0009] A further aspect of the present disclosure includes communicating the showing note to the handheld device operating the data at the door application in response to accessing an electronic key box for the subject property.

[0010] A handheld device according to one disclosed non-limiting embodiment of the present disclosure includes a power supply; a memory to store executable instructions for operation of a data at the door application; a processor in communication with the memory and the power supply, the processor operable to execute the executable instructions to showing notes regarding a subject real estate listing; and a display in communication with the processor, the display configured for displaying the showing notes.

[0011] A further aspect of the present disclosure includes time sensitive data in the showing note.

[0012] A further aspect of the present disclosure includes MLS data in the showing note.

[0013] A further aspect of the present disclosure includes data not in an MLS listing in the showing note.

[0014] A further aspect of the present disclosure includes that the executable instructions include executable instructions to communicate with an electronic key box.

[0015] A further aspect of the present disclosure includes opening the data at the door application in response to communication with the electronic key box.

[0016] A further aspect of the present disclosure includes a GPS module in communication with the processor to determine a distance to the subject property.

[0017] A further aspect of the present disclosure includes opening the data at the door application in response to the handheld device coming within a predetermined distance to the subject property as determined by the GPS module.

[0018] A method for communicating data for a subject real estate listing according to one disclosed non-limiting embodiment of the present disclosure includes

[0019] receiving a showing note regarding a subject real estate listing in a data at the door application in response to a handheld device operating the data at the door application being proximate to the subject real estate listing.

[0020] A further aspect of the present disclosure includes determining a proximity to the subject real estate listing via a GPS module of the handheld device.

[0021] A further aspect of the present disclosure includes determining a proximity to the subject real estate listing via accessing an electronic key box for the subject property.

[0022] The foregoing features and elements may be combined in various combinations without exclusivity, unless expressly indicated otherwise. These features and elements as well as the operation thereof will become more apparent in light of the following description and the accompanying drawings. It should be understood, however, the following description and drawings are intended to be exemplary in nature and non-limiting.

BRIEF DESCRIPTION OF THE DRAWINGS

[0023] Various features will become apparent to those skilled in the art from the following detailed description of the disclosed non-limiting embodiment. The drawings that accompany the detailed description can be briefly described as follows:

[0024] FIG. **1** is a general schematic system diagram of a real estate application system.

[0025] FIG. **2** is a schematic diagram of a handheld device.

[0026] FIG. **3** is a flowchart of a method to provide communication for a real estate transaction with the system of FIG. **1**.

[0027] FIG. **4** is a screenshot of the real estate application property listing view.

[0028] FIG. **5** is schematic system diagram of a portion of the real estate application system.

[0029] FIG. **6** is a flowchart of a method to obtain time sensitive information using a data at the door application.

[0030] FIG. **7** is a screenshot of the data at the door application for display on a handheld device.

[0031] FIG. **8** is a flowchart of a method of operation of the data at the door application.

DETAILED DESCRIPTION

[0032] FIG. **1** schematically illustrates a system **10** to facilitate communication for real estate transactions. A showing agent "R" has a fiduciary duty to a home buyer "B" while a listing agent "L" has a fiduciary duty to a home seller "S." The showing agent "R" typically shows the property to the home buyer "B." The listing agent "L" typically communicates with the buyer "B" only indirectly, such as by communication with the showing agent "R" who then communicates information to and from the buyer "B." Although

only particular agents are referred to in the illustrated embodiments, the functions of such personnel may be otherwise assigned or rearranged. For example, the listing agent "L" may utilize a seller's assistant.

[0033] Showing information is accessible through the system **10** so that the listing agent "L" can generate reports for their seller "S", send updates about a particular listing to showing agents "R" who recently showed that listing, or provide feedback from a showing. The feedback may also include data generated by an electronic key box **50** that occurs as a function of the showings, such as number of showings, time spent at the subject property, return showings, etc. Listing agents "L" may also use the system **10** to receive automatic notification (e.g., email notices) when a showing occurs at their listings. The buyer "B" may also benefit as the system **10** provides a central repository for buyer information (e.g., details of each home the buyer has viewed).

[0034] The system **10** generally includes a subsystem **12** that may be controlled by a single owner. The subsystem **12** generally includes a listing recommendation server **14**, a buyer server **16**, a buyer database system **18**, a log database system **20**, and an electronic key server **22**. A multiple of handheld devices **28**, **30**, **32**, communicate with the subsystem **12**. The first handheld device **28** is herein associated with the potential buyer "B," the second handheld device **30** is associated with the showing agent "R" and the third handheld device **32** is associated with the listing agent "L."

[0035] "Server" conveys its customary meaning and further includes a corporate datacenter that provides service and/or data connection, e.g., to the handheld device and/or an electronic locking device. "Handheld device" refers to a portable electronic device that is at least configured to send messages to, and/or receive messages from the listing recommendation server **14** over a long-range wireless communication network, such as a SMS, wireless, or cellular network. Examples of handheld devices include, but are not limited to: a cell phone; a personal digital assistant ("PDA"); a portable computer configured to store and playback digital pictures, songs, and/or videos; and the like. In addition, the handheld device is typically also configured for short-range wireless communications.

[0036] The listing recommendation server **14** communicates with the buyer database system **18**, the log database system **20**, and a data center **24**. The buyer database system **18** includes a database **19** that stores rating and notes taken by the buyer "B," and the log database system **20** includes a database **21** that collects activity data. The data center **24** may host one or more servers that may include, but not be limited to, a database for managing key holders **25**A, a security database **25**B that hosts security protocols, and a listing database **25**C that stores extracted real estate listings from external servers **26**A, **26**B, **26**N.

[0037] The data center **24** communicates with the external data servers **26**A-**26**N such as a Real Estate Transaction Standard (RETS) framework that stores MLS data. The MLS data includes information such as number of bedrooms, number of bathrooms, price of listing, etc. RETS is a framework that can be adopted by computer systems to receive data from the Multiple Listing Service (MLS) servers, as well as those of other real estate systems provided they also have software installed designed to communicate using the RETS framework. The National Association of Realtors refers to RETS as a "common language." The data center **24** may also host real estate servers including a database for managing key box inventories, a security database that houses security protocols, a listing database of property listings, and/or other databases.

[0038] The listing recommendation server **14** hosts, for example, at least an analytics software application **32** that compiles and runs analytics against buyer ratings and MLS listing data from the data center **24**. The buyer server **16** hosts a buyer application program interface (API) **34**, and the electronic key server **22** hosts an electronic key API **36**. An application program interface (API) is a set of routines, protocols, and tools for building software applications. An API specifies how software components should interact. APIs are used when programming graphical user interface (GUI) components. A server-side web API is a programmatic interface consisting of one or more publicly exposed endpoints to a defined request-response message system.

[0039] The listing recommendation server **14** communicates with a real estate application **38** on the handheld device **28** through the buyer API **34** and buyer database system **18**. An agent application **40** on the handheld device **30** communicates with the listing recommendation server **14** and the electronic key server **22**. The buyer API **34** and the electronic key API **36** also communicate with the data center **24** through a firewall "F" or other security protocol.

[0040] The real estate application **38** may be a mobile application that may be used by the home buyer "B" to rate the properties they have seen via, for example, recordation of feedback and cataloging of the properties of interest. The real estate application **38** communicates with the buyer database system **18** through the buyer API **34** which then stores the ratings and notes taken by the home buyer in the buyer database system **18**.

[0041] The agent application **40** may be a mobile application that may be used by the showing agent "R" to access the electronic key boxes **50**. The electronic key API **36** communicates with the agent application **40** to sync activity from the electronic key boxes **50** to the electronic key API **36** (e.g., key boxes the key has opened), and showing notifications (e.g., messages about accessed key boxes and associated showing agent "R").

[0042] With reference to FIG. **2**, each handheld device **28**, **30**, **32**, generally includes a handheld device antenna **60**, a handheld device transceiver **62**, a handheld device processor **64**, a handheld device memory **66**, a GPS module **68**, an input device **70**, a display **72**, and a handheld device power supply **74**. The handheld device processor **64** may be any type of microprocessor having desired performance characteristics. The handheld device memory **66** may include any type of computer readable medium that stores the data and executable instructions described herein below. The executable instructions may be stored or organized in any manner and at any level of abstraction, such as in connection with one or more applications, processes, routines, procedures, methods, etc. The handheld device transceiver **62** is a transceiver of a type corresponding to the transceiver **62** and the handheld device antenna **60** is a corresponding antenna.

[0043] With reference to FIG. **3**, a method **200** for operation of the system **10** is disclosed in terms of functional block diagrams. The functions are programmed software routines capable of execution in various microprocessor based electronics control embodiments and represented herein as block diagrams.

[0044] Initially, the owner of the subsystem **12** may have agreements with MLS to extract (**202**) MLS data from the external data servers **26**A-**26**N into the listing recommendation server **14**. Next, the agent application **40** syncs (**204**) with the listing recommendation server **14** and pulls MLS data for desired listings. This may be performed through an automated sync through the agent application **40**. The showing agent "R" may also do a manual sync to obtain updated MLS data.

[0045] Through the agent application **40**, the showing agent "R" can authorize (**206**) the home buyer "B" to access the desired listings of interest to the buyer "B". Through the agent application **40**, the showing agent "R" authorizes the buyer "B" through input of buyer identification information (e.g., name and email address.) The buyer identification information is then synced with the listing recommendation server **14**. The listing recommendation server **14** then communicates with the buyer "B" (e.g., via email) that can include a link to an app store and a code to unlock (**208**) the real estate application **38**. The buyer "B" is then authorized to download the real estate application **38** and desired listings, or to maintain the value of the showing agent "R" in the real estate transaction.

[0046] Through the agent application **40**, the showing agent "R" can continue to push (**210**) listings to the real estate application **38**. Access may be provided for one or more properties by a showing code, or other link to unlock one or more features in the real estate application **38**. The showing agent "R" is able to selectively push properties (one example property illustrated by screenshot "P"; FIG. **4**) to be viewable within the real estate application **38**. The showing agent "R" also uses the agent application **40** to operate the electronic key box **50** to access the property for showing to the buyer "B."

[0047] With reference to FIG. **5**, in addition to the features discussed above, the showing agent "R" can utilize a data at the door application **500** to receive time sensitive information. The data at the door application **500** may be a separate application and/or a portion of the agent application **36** and/or other application.

[0048] With reference to FIG. **6**, a method **600** for receipt of showing notes utilizing the data at the door application **500** is illustrated in terms of functional block diagrams. Initially, at any time the listing is on the market, the showing agent "R" or the home owner can create (**602**) a showing note or input other data not typically in MLS data through the agent application **36**. As one example, the showing note could be a home owner time sensitive showing note (e.g., the dog is in the garage; the deck has been refinished; FIG. **7**). The data at the door application **500** may also provide MLS data (e.g., price changes, school districts, taxes, crime rates, etc.) as well as local attractions (shops, parks, restaurants, etc.). Various sources (e.g., internet search, dedicated attraction sources) may be utilized to populate data that is not typically provided as MLS data.

[0049] The data at the door application **500** communicates with the listing recommendation server **14** to obtain the showing notes **502**, **504**, as well as any other data that is not typically in MLS data but has been previously uploaded for use by the data at the door application **500**. A user such as the showing agent "R" then may access the data at the door application **500** when showing the subject property. In one embodiment, the data at the door application **500** may automatically open when the showing agent "R" accesses the electronic key box **50** (**604**A). Alternatively, the data at the door application **500** may automatically be opened in response to a proximity (**604**B) to the subject property (e.g., the proximity may be determined by the GPS module **68** (FIG. **2**) and the agent application **36**) when the showing agent "R" comes within a predetermined distance of the subject property even prior to access of the electronic key box **50**.

[0050] With reference to FIG. **8**, a method **800** of operation of the data at the door application **500** is disclosed in terms of functional block diagrams. The functions are programmed software routines and executable instructions capable of execution in various microprocessor based electronic control embodiments and represented herein as block diagrams.

[0051] Initially, a showing note is received (**802**) for the subject property through the agent application **36** or another interface with the subsystem **12**. The showing note or other information is then stored (**804**) to the data center **24**. Then, later when a showing is essentially in progress, and in response to either proximity to the subject property, or access to the electronic key box **50** of the subject property (**806**; FIG. **6**), the data at the door application **500** is automatically opened and the showing data displayed (**806**).

[0052] The data at the door application **500** allows the showing agent "R" to have relevant information without carrying sheaves of paper information and permits home owner participation in the showing process by providing timely and up-to-date information.

[0053] The elements described and depicted herein, including in flow charts and block diagrams throughout the figures imply logical boundaries between the elements. However, according to software or hardware engineering practices, the depicted elements and the functions thereof may be implemented on machines through computer executable media having a processor capable of executing program instructions stored thereon as a monolithic software structure, as standalone software modules, or as modules that employ external routines, code, services, and so forth, or any combination of these, and all such implementations may be within the scope of the present disclosure.

[0054] The use of the terms "a," "an," "the," and similar references in the context of description (especially in the context of the following claims) are to be construed to cover both the singular and the plural, unless otherwise indicated herein or specifically contradicted by context. The modifier "about" used in connection with a quantity is inclusive of the stated value and has the meaning dictated by the context (e.g., it includes the degree of error associated with measurement of the particular quantity). All ranges disclosed herein are inclusive of the endpoints, and the endpoints are independently combinable with each other.

[0055] Although the different non-limiting embodiments have specific illustrated components, the embodiments of this invention are not limited to those particular combinations. It is possible to use some of the components or features from any of the non-limiting embodiments in combination with features or components from any of the other non-limiting embodiments.

[0056] It should be appreciated that like reference numerals identify corresponding or similar elements throughout the several drawings. It should also be appreciated that

although a particular component arrangement is disclosed in the illustrated embodiment, other arrangements will benefit herefrom.

[0057] Although particular sequences are shown, described, and claimed, it should be understood that steps may be performed in any order, separated or combined unless otherwise indicated and will still benefit from the present disclosure.

[0058] The foregoing description is exemplary rather than defined by the limitations within. Various non-limiting embodiments are disclosed herein, however, one of ordinary skill in the art would recognize that various modifications and variations in light of the above teachings will fall within the scope of the appended claims. It is therefore to be understood that within the scope of the appended claims, the disclosure may be practiced other than as specifically described. For that reason the appended claims should be studied to determine true scope and content.

What is claimed:

1. A method for communicating data for a subject real estate listing, comprising:

receiving a showing note regarding a subject real estate listing;

storing the showing note;

communicating the showing note to a handheld device operating a data at the door application.

2. The method as recited in claim **1**, wherein the showing note includes time sensitive data.

3. The method as recited in claim **1**, wherein the showing note includes MLS data.

4. The method as recited in claim **1**, wherein the showing note includes data not in an MLS listing.

5. The method as recited in claim **1**, wherein the showing note includes local attractions.

6. The method as recited in claim **1**, further comprising communicating the showing note to the handheld device operating the data at the door application in response to a proximity to the subject property.

7. The method as recited in claim **1**, further comprising communicating the showing note to the handheld device operating the data at the door application in response to accessing an electronic key box for the subject property.

8. A handheld device, comprising:

a power supply;

a memory to store executable instructions for operation of a data at the door application;

a processor in communication with the memory and the power supply, the processor operable to execute the executable instructions to showing notes regarding a subject real estate listing; and

a display in communication with the processor, the display configured for displaying the showing notes.

9. The handheld device as recited in claim **8**, wherein the showing notes include time sensitive data.

10. The handheld device as recited in claim **8**, wherein the showing notes include MLS data.

11. The handheld device as recited in claim **8**, wherein the showing notes include data not in an MLS listing.

12. The handheld device as recited in claim **8**, wherein the executable instructions include executable instructions to communicate with an electronic key box.

13. The handheld device as recited in claim **12**, further comprising opening the data at the door application in response to communication with the electronic key box.

14. The handheld device as recited in claim **18**, further comprising a GPS module in communication with the processor to determine a distance to the subject property.

15. The handheld device as recited in claim **14**, further comprising opening the data at the door application in response to the handheld device coming within a predetermined distance to the subject property as determined by the GPS module.

16. A method for communicating data for a subject real estate listing, comprising:

receiving a showing note regarding a subject real estate listing in a data at the door application in response to a handheld device operating the data at the door application being proximate to the subject real estate listing.

17. The method as recited in claim **16**, further comprising determining a proximity to the subject real estate listing via a GPS module of the handheld device.

18. The method as recited in claim **16**, further comprising determining a proximity to the subject real estate listing via accessing an electronic key box for the subject property.

* * * * *