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SHAREABLE NOTIFICATIONS

Arneil Villena

Laura Paragano

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SHAREABLE NOTIFICATIONS

ABSTRACT

A shareable notification system allows a user to share a notification with other users. The shareable notification system provides a notification to a user on his electronic device. The notification can be about, for example, a user's flight, restaurant reservation, map directions. The system receives a request from the user to share the notification with another user. After receiving the request, the system transmits the notification to the selected user.

PROBLEM STATEMENT

Current notification applications and services notify users with up-to-date information about topics, people, and upcoming events, such as a meeting, upcoming flight, restaurant reservation, sports scores, that are of interest to the user. These notifications keep the user abreast of relevant information so they can plan their actions accordingly. However, current notification systems do not allow the users to share the notifications they receive with other users. For example, a user might get a notification on his electronic device that his flight is delayed. In order to update his friend that is picking him up at the airport regarding the delay, the user has to separately contact, e.g., via a phone call, message, or email. However, the user might be in a rush and it may not be convenient to separately contact his friend regarding the flight delay. The process of separately conveying information received in a notification to other users is a tedious process for the user. A more convenient and robust method for sharing notifications is disclosed.

SHAREABLE NOTIFICATION SYSTEM

The systems and techniques described here relate to a shareable notification system that allows a user to share a notification, presented on the user's client device, with another user. The system can be implemented for use in an internet, an intranet, or another client and server environment. The client device can be any electronic device, e.g., a smartphone, laptop, mobile phone, desktop computer, tablet, electronic wearable device, PDA etc. The shareable notification system can be implemented by an automatic notification service, which may be locally installed on the electronic device or can be a web-based application or service. For example, it can be a functionality implemented at a cloud, a server, or a remote memory location.

FIG. 1 illustrates an example method for sharing notifications which are presented to a user on an electronic device. The method can be performed by the shareable notification system.

The shareable notification system provides a notification to a first user (Block 102). The notification can be generated in response to a trigger event pre-set by the user. For example, a user can set up the system to notify the user to walk his dog every evening at 5. Such notifications can be set by the user using a graphical user interface provided by the system at the user's electronic device. The interface may provide the user with various settings options that enable the user to set up notifications. The notifications may also be generated automatically in response to situational changes. For example, the system may detect that there is a road accident on route to the user's pre-set destination. The system may generate a notification for the user, warning him about delay in travel time before the user begins his journey. In another example, the system may provide a notification to the user indicating that the user's upcoming flight has now been delayed.

The system may have access to relevant applications installed on the user's electronic device in order to obtain information related to user events. For example, the system may access the user's emails, calendar, notes etc. The system may analyze relevant information by virtue of having access to these applications. For example, the system may extract information about a user's upcoming flight from the flight confirmation email. The system may know about a user's upcoming meeting by analyzing the user's calendar. The system may also have access to relevant Application Programming Interfaces (APIs) such as a maps API, airline API, restaurant reservation API, sports API etc. The system can access information that might affect the user's scheduled events. For example, through the airline API, the system can receive updated flight departure/arrival information and any flight related information. Through the airline API and the user's flight information, the system can notify the user about any upcoming change in the user's flight plans. The system may require user's permission in order to access information from any of the user's applications.

After the shareable notification system delivers the notification to the user, the system receives a request from the user to share the notification with other users (Block 104). The notification may include a selectable "share" soft button in the notification interface. The share option may provide multiple sharing options, for example, "share via text message," "share via email," "share with social network," "share with group," "share with contact," etc. These options allow the user to select one or more users with whom he wants to share the notification. For example, the user wants to share a notification with one of his contacts. The user selects the share soft button from the notification interface. In response, the system provides the different sharing options, from which the user can select the option "share with contacts." The system then

presents the user's contact list, from which the user can select one or more contacts with whom he wants to share the notification.

After the user selects another user from the sharing interface, the system causes the notification to be transmitted to a selected second user via the selected sharing option (Block 106). After a user selects a particular sharing option, the system causes the notification to be transmitted to the second user on his electronic device. The system determines the notification transmission medium based on the selected sharing option. For example, if the user selects the option "share with social network," the system causes the notification to be transmitted via user's social network.

FIG. 2 illustrates an example graphical user interface (GUI) 200 of a notification provided by the shareable notification system on a User A's device. As depicted in the figure, the notification is displayed on User A's screen which is provided by the system in response to an event trigger. The notification pertains to a flight scheduled on User A's calendar. The system, through its airline API, detects that User A's flight is delayed and provides the notification 202 to the user.

As shown, the notification is presented on user A's screen in a card format in the notification graphical user interface. The interface shows information about User A's upcoming flight (AXZ airlines 0761 A). The information conveys that the flight is delayed and is scheduled to depart in an hour and 30 minutes. The notification card also depicts additional information about the flight such as the gate number, terminal number, time of departure, time of arrival, etc. After receiving the notification card, User A may wish to share this notification with his friend who is scheduled to pick him up from the airport upon his arrival. The notification card can be

directly shared with his friend using a share soft button 206, provided within the flight notification card of the graphical user interface. Other options may be provided with the flight notification card, including “edit” 204, “search” 208, and “view” 210. As depicted in FIG. 2, User A selects the share option. The selection is conveyed to the user by visually changing the share soft button in the user interface, e.g., by highlighting or changing the color of the share soft button.

After the share soft button is selected, the system provides sharing options. FIG. 3 depicts the GUI 300 of the share menu. The notification card 302 is reduced in size and sharing options are presented below that. The sharing options include “Share with Contacts” 304, “Share with Social Circle” 306, “Share via messages” 308, “Share via email” 310, “Enter contact info” 312. After selecting a sharing option, a particular user may be selected to receive the notification in the selected sharing medium. In this example, User A has selected option 304 “Share with Contacts” through which the user can select another user from his contact list.

FIG. 4 depicts the GUI 400 after User A has selected User B from his contacts. The notification card 402 also includes a confirmation dialog box 404 which confirms that the notification has been shared with User B. The system then delivers the notification to User B on his/her electronic device. The notification may be delivered using any communication protocols such as internet, LTE, 3G etc.

FIG. 5 depicts the graphical user interface 500 of the same notification presented on User B’s client device. The system may present the notification to User B in a similar card based shareable notification system as that of User A. If User B doesn’t have the system installed/activated on his device, the system may notify the User B about the incoming

notification via the communication mean based on the selection made by User A, e.g., email, text message, instant message etc. The system can then prompt the user to install/activate the system, in order to view the notification details. The notification has all the details of the original notification presented on user A's screen along with some other options such as edit, search, view etc. The User B can review all the information about User A's flight at a quick glance.

FIG. 6 is a block diagram of an exemplary environment that shows components of a system for implementing the techniques described in this disclosure. The environment includes client devices 610, servers 630, and network 640. Network 640 connects client devices 610 to servers 630. Client device 610 is an electronic device. Client device 610 may be capable of requesting and receiving data/communications over network 640. Example client devices 610 are personal computers (e.g., laptops), mobile communication devices, (e.g. smartphones, tablet computing devices), set-top boxes, game-consoles, embedded systems, and other devices 610' that can send and receive data/communications over network 640. Client device 610 may execute an application, such as a web browser 612 or 614 or a native application 616. Web applications 613 and 615 may be displayed via a web browser 612 or 614. Server 630 may be a web server capable of sending, receiving and storing web pages 632. Web page(s) 632 may be stored on or accessible via server 630. Web page(s) 632 may be associated with web application 613 or 615 and accessed using a web browser, e.g., 612. When accessed, webpage(s) 632 may be transmitted and displayed on a client device, e.g., 610 or 610'. Resources 618 and 618' are resources available to the client device 610 and/or applications thereon, or server(s) 630 and/or web pages(s) accessible therefrom, respectively. Resources 618' may be, for example, memory or storage resources; a text, image, video, audio, JavaScript, CSS, or other file or object; or other

relevant resources. Network 640 may be any network or combination of networks that can carry data communication.

The subject matter described in this disclosure can be implemented in software and/or hardware (for example, computers, circuits, or processors). The subject matter can be implemented on a single device or across multiple devices (for example, a client device and a server device). Devices implementing the subject matter can be connected through a wired and/or wireless network. Such devices can receive inputs from a user (for example, from a mouse, keyboard, or touchscreen) and produce an output to a user (for example, through a display). Specific examples disclosed are provided for illustrative purposes and do not limit the scope of the disclosure.

FIGURES

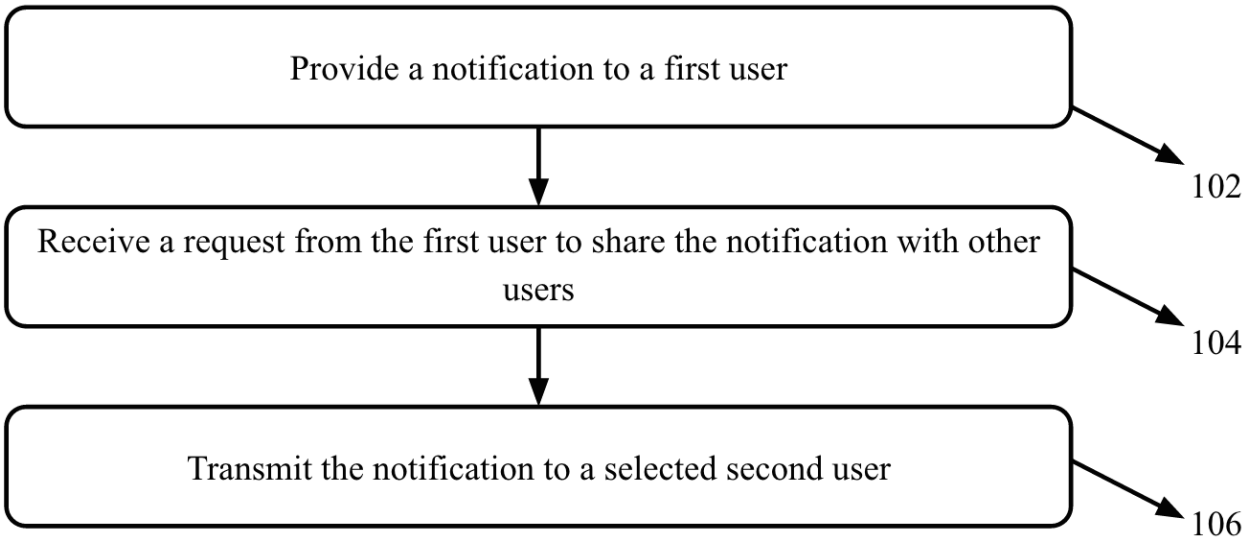

FIGURE 1

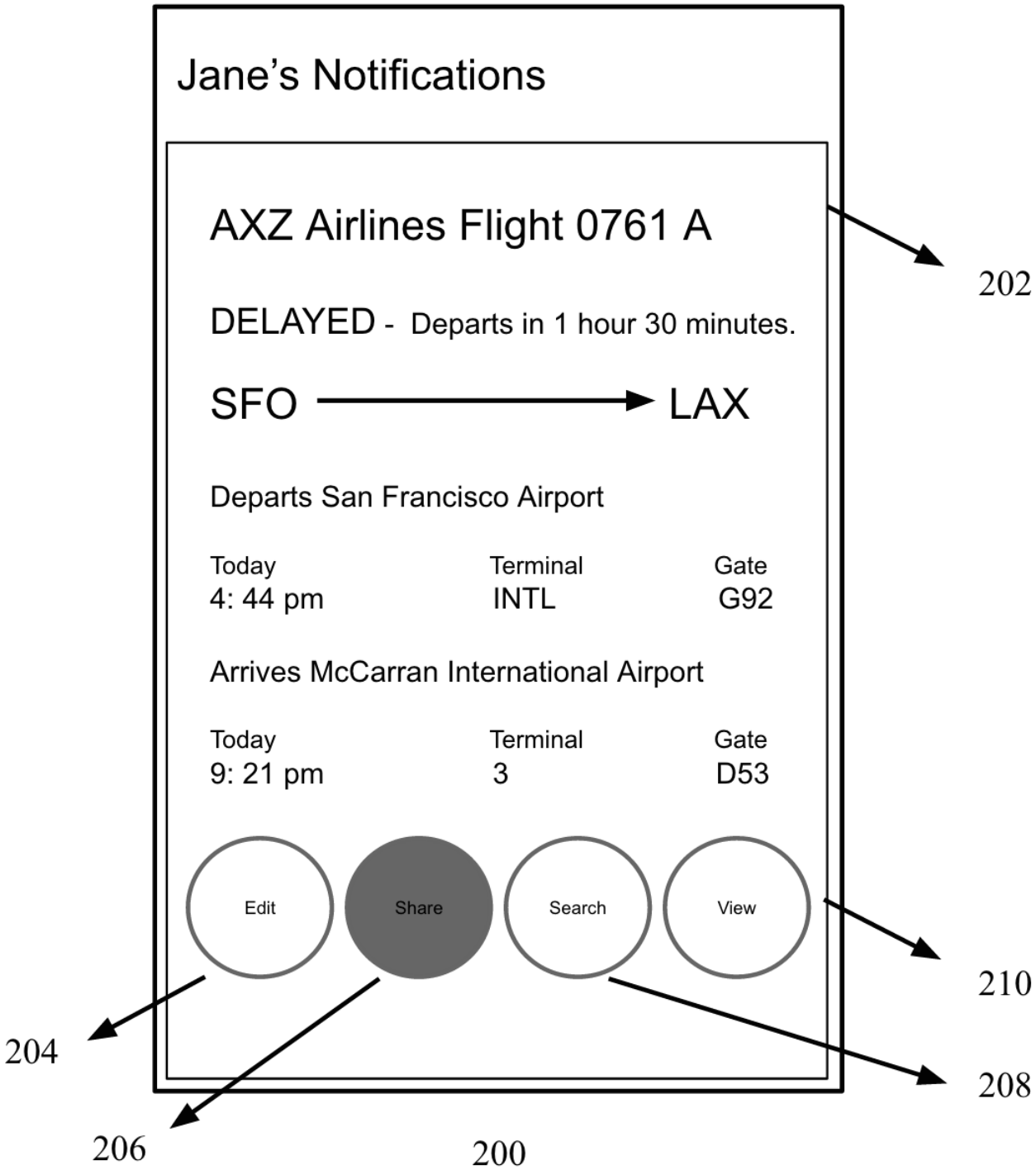
Jane's Notifications
AXZ Airlines Flight 0761 A
DELAYED - Departs in 1 hour 30 minutes.
SFO
LAX
Departs San Francisco Airport
Today
4: 44 pm
Terminal
INTL
Gate
G92
Arrives McCarran International Airport
Today
9: 21 pm
Terminal
3
Gate
D53
Edit
Share
Search
View
202
210
204
208
206
200

FIGURE 2

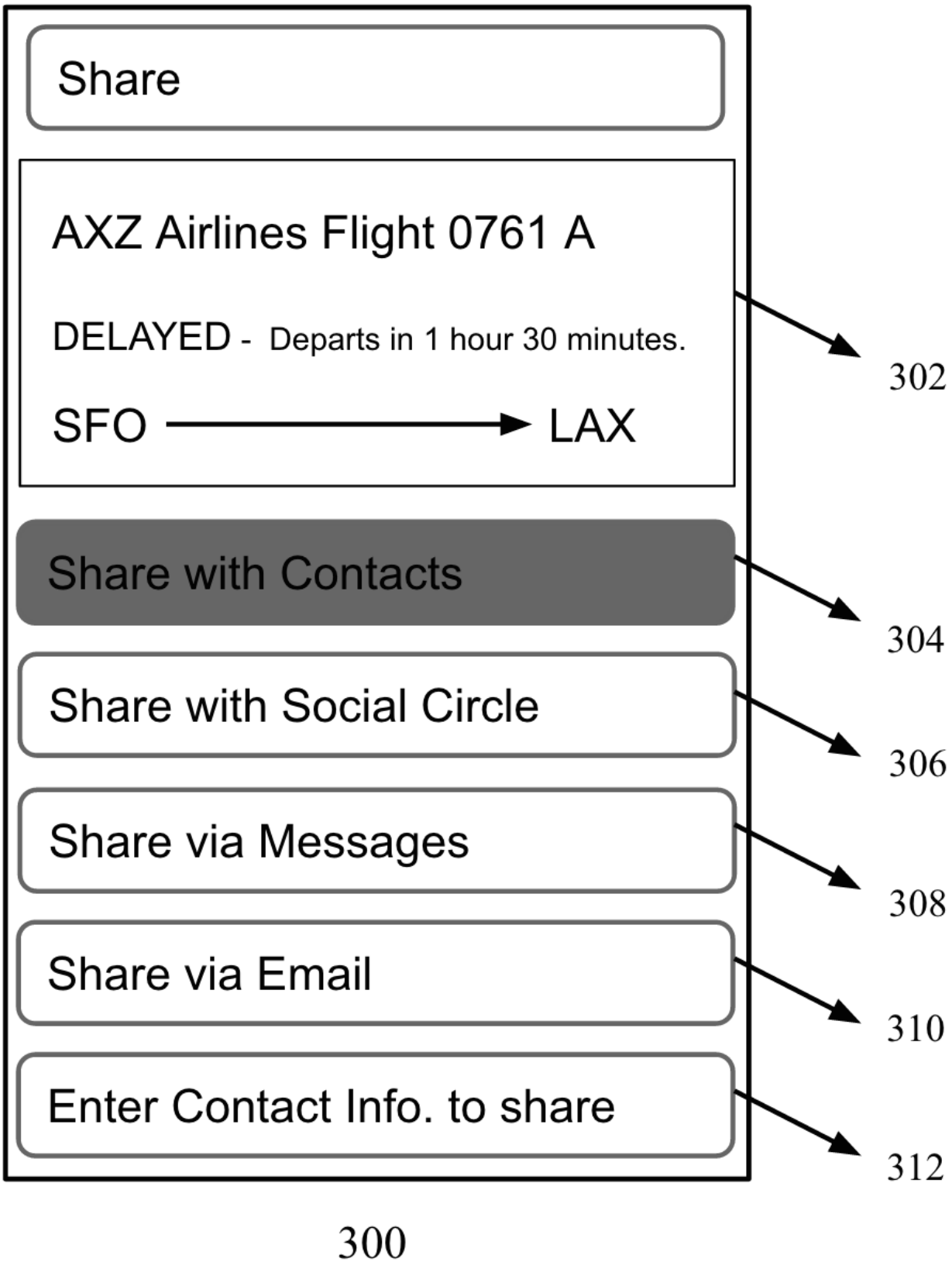
Share
AXZ Airlines Flight 0761 A
DELAYED - Departs in 1 hour 30 minutes.
SFO
LAX
302
Share with Contacts
304
Share with Social Circle
306
Share via Messages
308
Share via Email
310
Enter Contact Info. to share
312
300

FIGURE 3

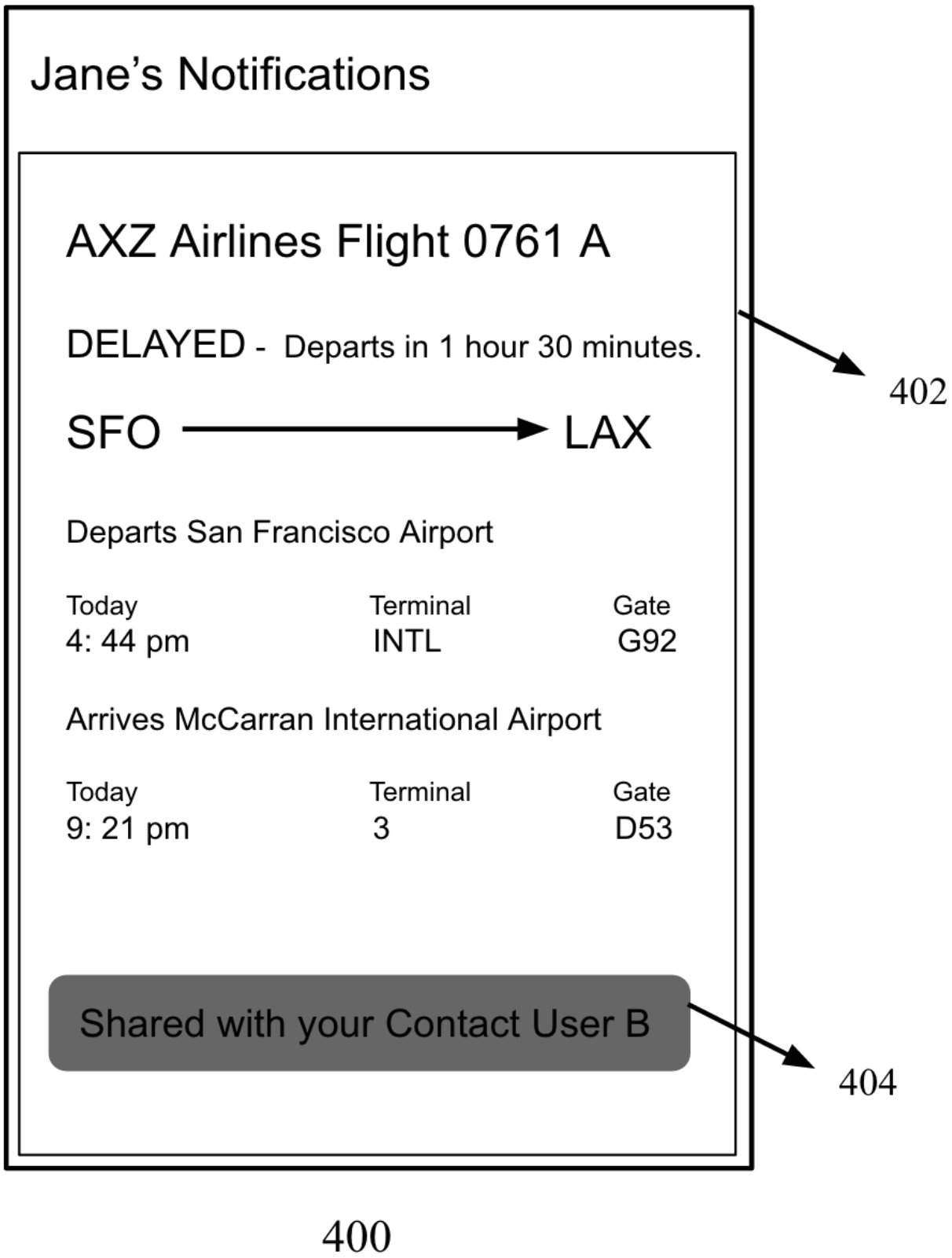
Jane's Notifications
AXZ Airlines Flight 0761 A
DELAYED - Departs in 1 hour 30 minutes.
SFO
LAX
Departs San Francisco Airport
Today
4: 44 pm
Terminal
INTL
Gate
G92
Arrives McCarran International Airport
Today
9: 21 pm
Terminal
3
Gate
D53
Shared with your Contact User B
402
404
400

FIGURE 4

Notifications shared with you by Jane
(1 minute ago)
AXZ Airlines Flight 0761 A
DELAYED - Departs in 1 hour 30 minutes.
SFO
LAX
Departs San Francisco Airport
Today
4: 44 pm
Terminal
INTL
Gate
G92
Arrives McCarran International Airport
Today
9: 21 pm
Terminal
3
Gate
D53
Edit
Report
Search
View
502
500

FIGURE 5

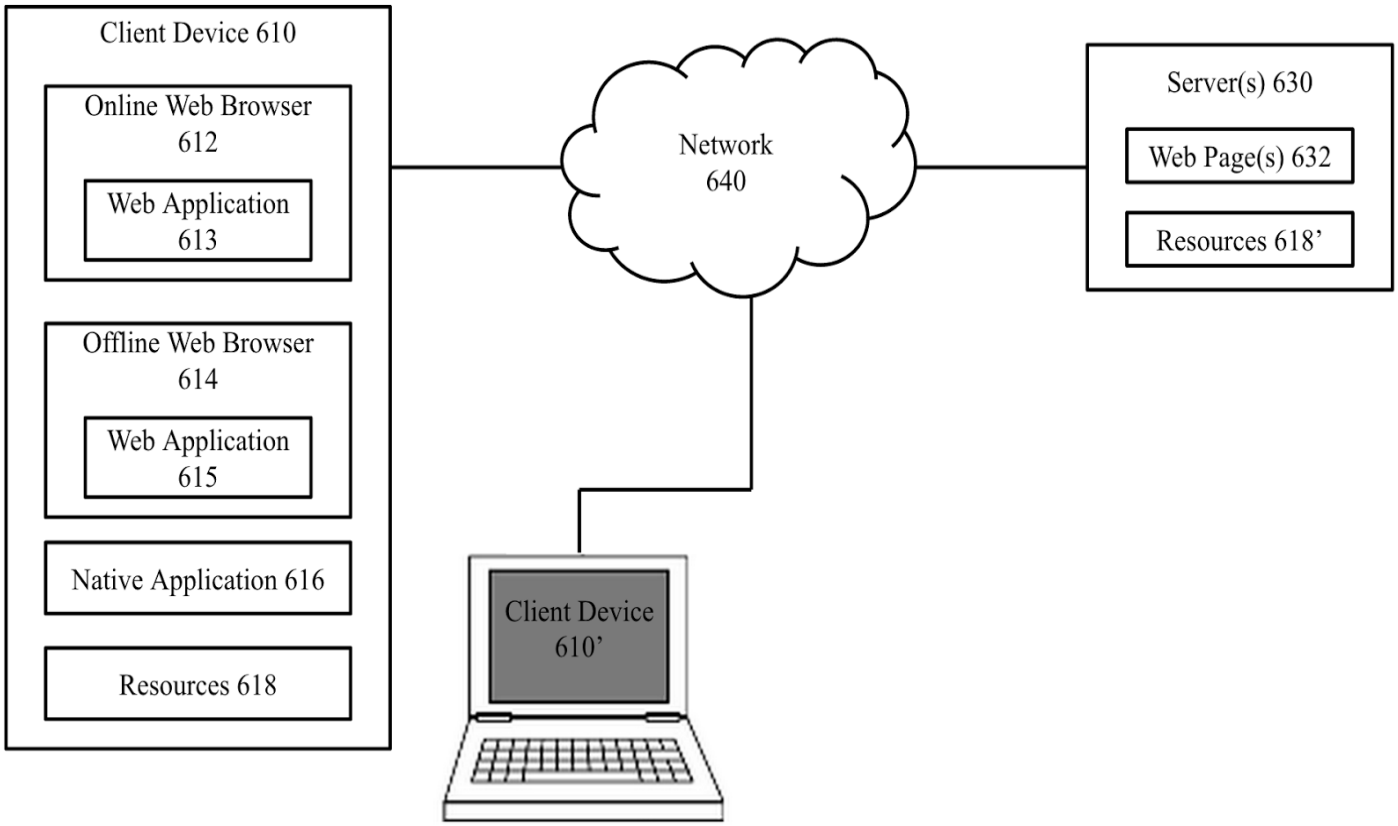
Client Device 610
Online Web Browser 612
Web Application 613
Offline Web Browser 614
Web Application 615
Native Application 616
Resources 618
Network 640
Server(s) 630
Web Page(s) 632
Resources 618'
Client Device 610'

FIGURE 6