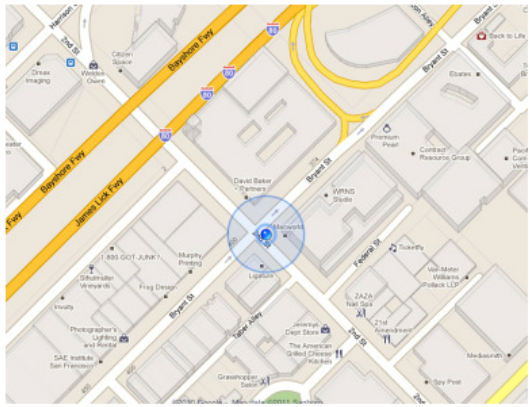
U.S. Patent No. 8,213,975: Foursquare

Claim 44	Analysis	Select Evidence
A method comprising:	Foursquare provides a mobile software application that directs mobile devices to practice the infringing method.	
receiving data on the location of wireless handheld devices that was generated through the use of localization circuitry through the use of a wireless network;	The Foursquare mobile application receives a user's location data that was generated using A-GPS circuitry on smartphone devices. A-GPS (Assisted GPS) is used by smartphones to decrease processing and memory costs associated with locating GPS satellites by utilizing GPS data from wireless network providers, such as cellular carriers. Smartphones use A-GPS localization circuitry to determine the location of a device. A-GPS utilizes data through the use of a wireless network provided by cellular carriers.	Except as discussed below, whenever you open and interact with the foursquare app on your mobile device, we use the location information from your mobile device to tailor the foursquare experience to your current location (i.e. we'll show you a list of nearby venues, friends and Tips). Source: http://support.foursquare.com/entries/239855-does-foursquare-track-my-location The current time can also be used as a clue. With a precise current time, fragmentary satellite data can be decoded to gain a faster lock or figure out the appropriate information to use. In CDMA networks, such as that used by Verizon, GPS-synchronized atomic time is required for the network's basic operations, making it a simple matter to have such information available. (In fact, CDMA cell towers have GPS units built in to maintain better atomic time synchronization.) These extras are what makes GPS into AGPS. Though a lot of people misunderstand AGPS and think it's some faux GPS system, that's not the case: AGPS requires a GPS receiver to work. Apple's iPhone and 3G iPad models include AGPS, as do nearly all competing devices with GPS chips, notably Android phones. (AGPS allows the use of much cheaper and simpler GPS circuits in phones, reducing cost and battery drain.)  You can see your iOS device get a location fix when you open Maps. This is where Apple's statement on Wednesday deviates from full accuracy. Apple uses AGPS for native GPS-lock improvements, and Wi-Fi network and cell tower locations are additional factors in providing a fast initial connection along with improving GPS accuracy. Cellular carriers have extremely precise GPS measurements of the locations of all their towers. With a database of such towers, you can take measurements of the signal strength of those within range—which may be dozens—and trilaterate to find an area that overlaps among them. (Trilateration involves overlapping regions to find an intersecting area; triangulation uses the measurement of angles to find a center point.) Source: http://www.macworld.com/article/1159528/how_iphone_location_works.html

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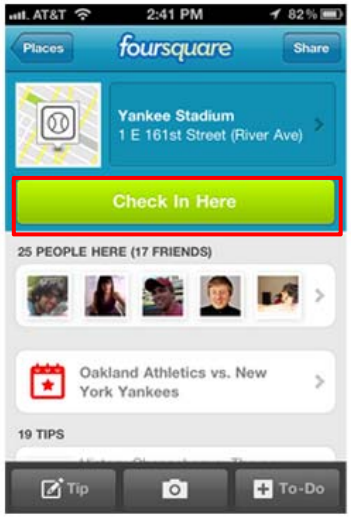
determining whether said handheld devices are within or in the immediate vicinity of a venue;	Foursquare determines whether or not a user is within or in the immediate vicinity of a venue before allowing the user to "Check In" for points or mayorships.	What we'd like to do is award points, mayorships and badges only when you're at the place you say you're at. Last week we started using a few different tricks using your phone's GPS to try to verify this. (and if your phone doesn't use GPS, we use a few different tricks) Source: http://blog.foursquare.com/2010/04/07/503822143/ and badges. Now, you may check in anywhere, but in order to receive points, mayorships and badges your GPS must report that you're within approximately 200-250 meters* of the venue's **map pin location** (among other factors that Foursquare doesn't disclose). If you're outside of that radius, Foursquare reports that your phone thinks you're "a little too far away" from the venue. Source: http://aboutfoursquare.com/too-far-away/
transmitting information for directing the wireless handheld device to prompt the user of the handheld device to enter a response;	When a user is within the vicinity of a venue, the Foursquare application will allow the handheld device to display the "Check In Here" prompt.	 Source: http://blog.foursquare.com/2011/08/18/foursquare_events/

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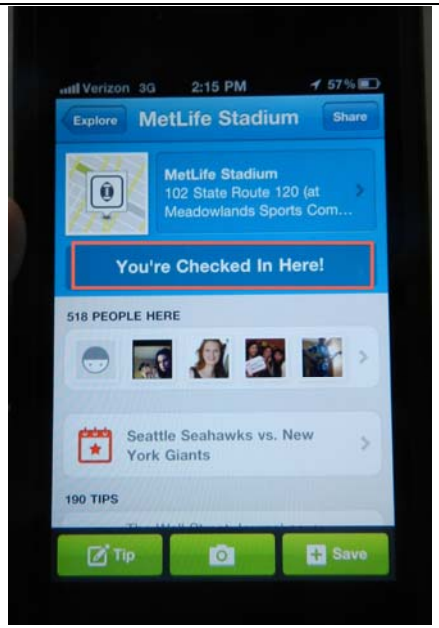
receiving the user's response;	As evidenced to the right, the Foursquare application has received the user's "Check-In," and has updated the user interface to display the "You're Checked In Here!" message.	 Source: Screenshot of smartphone running Foursquare mobile application

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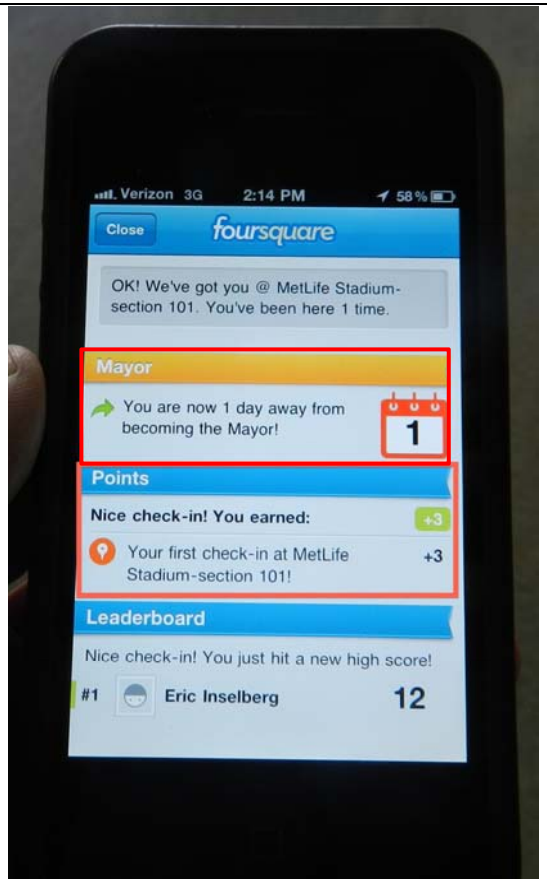
processing the user's response to the prompt;	The Foursquare application processes user check-ins into results such as "Mayors." Mayors are awarded when Foursquare processes check-ins from all users and determines that one user has checked in at a venue more of then than the other users.	 Source: Screenshot of smartphone running Foursquare mobile application **What is a mayor?** A mayor in foursquare is the user with the most number of *days* with check-ins at a specific place within the past 60 days. Only one check-in per day counts towards your mayorship tally. If you have a lot of check-ins that seem fake or consistently far away from where you are checking in, these check-ins will not count towards the mayorship total. Lots of businesses are now offering specials for the mayor of venues, so be sure to keep a look out for specials nearby when you're looking at the places tab in the app. Hint: Only users with a photo uploaded to their account (no faceless mayors!) will be eligible, so you should upload a photo from your settings page. If you're checking in off the grid, click here. If you're checking in via mobile web, click here. Source: http://support.foursquare.com/entries/231262-what-is-a-mayor

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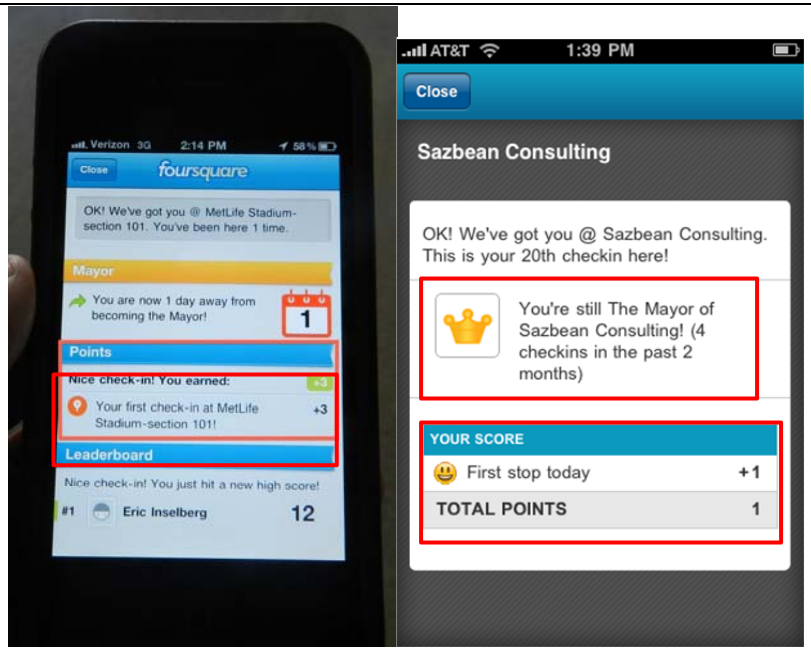
transmitting information for directing the display of the results of the processing of said users response to a wireless handheld device;	After processing a user check-in, the Foursquare application displays the results.	 Source: Screenshot of smartphone running Foursquare mobile application Source: http://sazbean.com/2010/06/02/ask-sazbean-what-is-foursquare/
transmitting feedback to a processor associated with said wireless network; and	The Foursquare mobile application transmits the users' check-in information to Foursquare servers using a wireless network.	 Source: https://foursquare.com Mobile Web If you don't have a phone that will run one of our apps but your phone can access the internet, you can still check in by pointing your mobile web browser to m.foursquare.com. Source: http://support.foursquare.com/entries/384200-i-can-t-use-the-app-on-my-phone-using-mobile-web-sms

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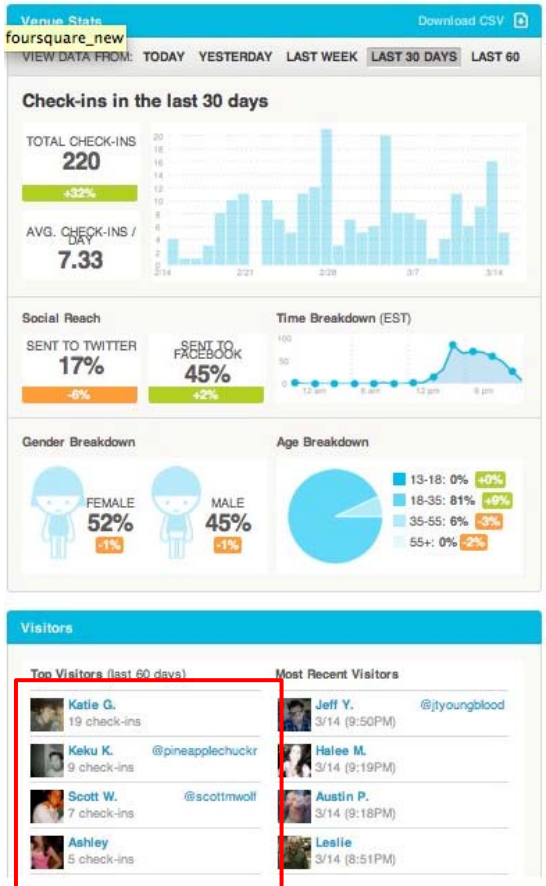
processing the feedback into results, which are provided to a sponsor.	Foursquare servers process the Check-In information, determine the users who have checked in the most during the past 60 days (highest number being declared the Mayor), and provide this information to a sponsor, such as a business owner. As shown to the right, Foursquare provides sponsors with the results of processing user check-ins on a sponsor's "Foursquare Analytics Dashboard."	Foursquare mayorships are awarded to your customers with the most days checked into your venue over the last 60 days, and only users who have uploaded profile photos are eligible. The mayor will always be visible on your foursquare venue page as well as on all the mobile clients (good for special verification/redemption). This title is up for grabs for customers that visit you often, but is not achievable by employees, owners, or managers. You can provide rewards to those crowned in the specials management section, once your venue has been claimed. Source: http://support.foursquare.com/entries/188303-what-is-a-foursquare-mayor  Source: http://teachtofishdigital.com/foursquare-analytics-review/