PATROLL Winning Submission

U.S. Patent 11,086,929

U.S. Patent 11,086,929 ("*Mimzi LLC*" or the "patent-at-issue") was filed on July 8, 2020, and claims an earliest priority date on July 29, 2008. According to the paragraph in the specification entitled "Cross-Reference to Related Applications," the patent-at-issue is a continuation of U.S. patent application Ser. No. 16/205,073, filed Nov. 29, 2018, which is also a continuation of U.S. patent application Ser. No. 15/727,045, filed Oct. 6, 2017, now abandoned. The latter is a continuation of U.S. patent application Ser. No. 13/900,495, filed May 22, 2013, now U.S. Pat. No. 9,792,361, issued Oct. 17, 2017. This patent is also a continuation of U.S. patent application Ser. No. 12/181,956, filed Jul. 29, 2008, now U.S. Pat. No. 8,775,454, issued Jul. 8, 2014. Claim 1 of the patent-at-issue describes a mobile phone system comprising of a Bluetooth transceiver for wireless communication with nearby mobile devices, a cellular transceiver, and a global positioning system device (GPS) device. The system also has an automated processor that controls Bluetooth functions such as receiving and transmitting identifications from nearby devices, recording these identifications along with time and GPS location, and transmitting this data to a remote searchable database via cellular connection. The system has a graphic display which presents GPS-referenced maps and displays location information received through the cellular connection. The remote database receives data from multiple mobile systems, searches and maps global locations of nearby devices, and transmits location information back to the mobile system for display on the GPS-referenced map. This system facilitates tracking and mapping of nearby mobile devices' locations in real-time.

The primary reference, U.S. Pat. App. 2007/0037605 ("*Logan*"), was filed on October 18, 2006, and claims an earliest priority date on August 29, 2000. This patent application describes a method of automating the selection process of alert notifications for incoming calls on a telephone such as by switching between ring or vibrate modes, and/or activating alert lights. Automation can be based on different factors such as the phone's location, the surrounding environment, or the characteristics of the incoming call. The system adjusts the alert signal based on the data indicating the phone's position, ambient light or sound levels, time of day, user's interaction, and more. The alert signal's properties can vary depending on these factors, improving the likelihood of the user noticing and responding to incoming calls. Gathering of the status data is through GPS, sensors detecting beacon signals, ambient conditions, and built-in accelerometers.

The secondary reference, U.S. Patent 6,091,956 ("*LBS Innovations*"), was filed on June 12, 1997, and claims priority on the same date. The patent describes an accessible situation information system that operates without a central dispatcher. The system includes mobile computers with radios being used to transmit location data and receive various types of situation information such as audible, visual, and tactile alerts, as well as updates on service providers and merchandise. Radio locating technology is used to determine the location of these mobile computers and process this data into location-based information, including changes in the position.

A sample claim chart comparing claim 1 of *Mimzi LLC* to *Logan* and *LBS Innovations* is provided below.

US11086929 ("*Mimzi LLC*")	**A. US20070037605** ("*Logan*") **B. US6091956** ("*LBS Innovations*")
[1.pre.] A **mobile phone system**, comprising:	**A. US20070037605** "As described below, **the invention may be used to particular advantage in connection with a cellular telephone and** may be implemented using conventional components of the type commonly used in advanced **cellular phone systems**." *Logan* at par. 0054 **B. US6091956** ". . . **a mobile information system** with which users could represent themselves on other user's computer displays with graphical symbols which could also be executable computer code to provide animation, sound, etc." *LBS Innovations* at col. 10:1-4
[1.a.] **a Bluetooth radio frequency transceiver** configured **to wirelessly communicate with adjacent mobile wireless communication devices**;	**A. US20070037605** "The **cellular telephone also preferable includes a built-in Bluetooth transceiver** which, in addition to other Bluetooth functions, operates as a Bluetooth beacon system 115 **for detecting that other Bluetooth enabled objects are nearby, and for indicating its position to such objects**." *Logan* at par. 0056 "In addition, advanced **cellular phones often include a Bluetooth short range signaling system** which **provides a communications interface to nearby devices and peripheral resources**, as well as Wi-Fi connectivity to the Internet for data and voice communications over channels which may be independent of the cellular network." *Logan* at par. 0052 **B. US6091956** "In the preferred embodiment, a situation information system consists of **at least one mobile computer with multiple transmitters and receivers, i.e., radios**, **a known-location information service provider including one or more radios**, accessible network, computer equipment with memory, which term includes storage, drives, and RAM units, and computer programs **to provide for efficient situation information exchange between them**." *LBS Innovations* at col. 5:13-20

[1.b.] **a cellular wireless transceiver**;	**A. US20070037605** "The **cellular telephone further includes** a microphone 121 for capturing spoken voice signals from the operator, a light sensor 122 for determining whether the cellular phone is in the dark, a pressure sensor or a capacitive sensor123 for determining whether or not the telephone handset is being held, an accelerometer 124 for determining if the cellphone is at rest or in motion, a speaker or earpiece 125 for delivering audible sounds to the operator, and **a cellular transceiver** 128 coupled to an antenna 127 **for sending and receiving radio frequency transmissions to and from the cellular telephone via the cellular network** (and/or the public switched telephone network) to a remote telephone station set as illustrated at 125 by a cellular phone having like functionality." *Logan* at par. 0057 **B. US6091956** "The mobile computer's transmitters and receivers include a receiver for satellite positioning system signals, such as GPS or GLONASS, **a transceiver for wireless voice and data telecommunications capability**, and a transponding transceiver for location finding in topographically complex, that is, mountainous areas or areas surrounded by buildings, e.g., in urban "canyons" and those enclosed within buildings, such as shopping malls." *LBS Innovations* at col. 5:20-27
[1.c.] **a global positioning system device**; and	**A. US20070037605** "The **cellular phones typically include built-in GPS (Global Positioning System) receivers** for continuously or periodically updating location data for that device." *Logan* at par. 0131 **B. US6091956** "The **mobile computer's transmitters and receivers include a receiver for satellite positioning system signals, such as GPS** or GLONASS, a transceiver for wireless voice and data telecommunications capability, and a transponding transceiver for location finding in topographically complex, that is, mountainous areas or areas surrounded by buildings, e.g., in urban "canyons" and those enclosed within buildings, such as shopping malls." *LBS Innovations* at col. 5:20-27

[1.d.] **at least one automated processor** configured to:	**A. US20070037605** "Cellular phones now typically include **one or more microprocessors** and sufficient memory resources to perform complex computational tasks." *Logan* at par. 0052 **B. US6091956** "In the preferred embodiment, a situation information system consists of at least one mobile computer with multiple transmitters and receivers, i.e., radios, a known-location information service provider including one or more radios, accessible network, **computer equipment with memory, which term includes storage, drives, and RAM units, and computer programs** to provide for efficient situation information exchange between them." *LBS Innovations* at col. 5:13-20
[1.e.] **control the Bluetooth radio frequency transceiver to directly receive at least an identification from the adjacent mobile wireless communication devices**;	**A. US20070037605** "Those **Bluetooth device which are programmable** (e.g. personal computers, PDAs, and the like) **may be readily programmed to detect and report the position of nearby devices**. Thus, **the device A may be programmed to detect the fact that devices B, C and D are within its range, that devices E, F, G, H and I are outside its range, and that device C is also within the range of device B but that device D is not within the range of device B**." *Logan* at par. 103 "The **Bluetooth enabled devices and the RFID tag readers are each coupled to a communications network**, which may include the Internet, **whereby position and identification information is passed to a processor which processes the supplied information** in accordance with the previously defined rules." *Logan* at par. 0112 **B. US6091956** "8. A method for conducting shopping functions in shopping areas including stores and malls wherein information is communicated wirelessly by providers of services and merchandise, including offers pertaining to the buying and selling of said services and merchandise, to potential customers severally using mobile computers with radios substantially continually receiving telephone numbers of said providers and obviating the resulting interference imposed by the obligatory answering of a ringing telephone as automated updates occur, comprising the steps of:

(cont.) **[1.e.]** **control the Bluetooth radio frequency transceiver** to directly **receive at least an identification from the adjacent mobile wireless communication devices**;	a. acting substantially simultaneously with receipt of a gating pulse from a transmitter, **transmitting customer information, including identification and location information, severally by said mobile computers with radios, and receiving said identification and location information in said situation information system, ...**" *LBS Innovations* at claim 8
[1.f.] **control the Bluetooth radio frequency transceiver** to directly **transmit at least an identification to the adjacent mobile wireless communication devices**;	**A. US20070037605** "The **Bluetooth enabled devices and the RFID tag readers are each coupled to a communications network**, which may include the Internet, **whereby position and identification information is passed to a processor which processes the supplied information** in accordance with the previously defined rules." *Logan* at par. 0112 "A server seen at 530 is connected to the Internet, and hence to devices A and F. The server 230 receives HTTP messages from the remote devices A and F containing the position information obtained by **transmitting Bluetooth inquiry messages from devices A and F, and by gathering position information obtained from satellite Bluetooth devices, such as the device B**. The server 530 executes a supervisory program which **records the position information contained in received messages to establish state information at predetermined times. By comparing the state information at different times, transition events can be detected**. Thus, if device B moves outside the range of device A, the time at which that movement occurred can be determined." *Logan* at par. 104 **B. US6091956** "8. A method for conducting shopping functions in shopping areas including stores and malls wherein information is communicated wirelessly by providers of services and merchandise, including offers pertaining to the buying and selling of said services and merchandise, to potential customers severally using mobile computers with radios substantially continually receiving telephone numbers of said providers and obviating the resulting interference imposed by the obligatory answering of a ringing telephone as automated updates occur, comprising the steps of: a. acting substantially simultaneously with receipt of a gating pulse from a transmitter, **transmitting customer information, including identification and location information, severally by said mobile computers with radios, and receiving said**

(cont.) **[1.f.]** **control the Bluetooth radio frequency transceiver** to directly transmit at least an identification to the adjacent mobile wireless communication devices;	**identification and location information in said situation information system**, ..." *LBS Innovations* at claim 8
[1.g.] **record the identification of the adjacent mobile wireless communication devices received through the Bluetooth radio frequency transceiver**, along with a time and a determined global location of the communication determined by the global positioning system device;	**A. US20070037605** "**Using the location and function database** seen at 323, **a cellular phone** 301 **equipped with** a GPS location sensor may transmit its current location as a geographic position designation comprising a latitude value and a longitude value to the database 311 when an incoming call arrives and when the cell phone user would normally be alerted." *Logan* at par. 0079 "A server seen at 530 is connected to the Internet, and hence to devices A and F. The server 230 receives HTTP messages from the remote devices A and F containing the position information obtained by transmitting Bluetooth inquiry messages from devices A and F, and by gathering position information obtained from satellite Bluetooth devices, such as the device B. The server 530 executes a supervisory program which **records the position information contained in received messages to establish state information at predetermined times**. **By comparing the state information at different times, transition events can be detected**. Thus, **if device B moves outside the range of device A, the time at which that movement occurred can be determined**." *Logan* at par. 104 **B. US6091956** "11. A method of communicatively executing, including making apparent to the aural and tactile senses of the user, one or more transmittable mappable hypertext items representing people, organisms, and objects, including buildings, roads, vehicles, and signs, on a computer in a manner scalably representing interrelationships of said objects, comprising the steps of: . . . c. displaying selectably scalably said items on said computer whereby said user may quickly **receive and display timely situation information mapped in the context of spatial information, including appropriate to a geographical or other area, in which said mappable hypertext items are**

(cont.) **[1.g.] record the identification of the adjacent mobile wireless communication devices received through the Bluetooth radio frequency transceiver**, **along with a time and a determined global location of the communication determined by the global positioning system device**;	**quickly received, mapped, and optionally executably selected by said user** to **provide additional of said situation information or received, stored, and transmitted by a provider of said situation information**." *LBS Innovations* at claim 11
[1.h.] transmit the identification received from the adjacent mobile wireless communication devices along with the time and the determined global location of the communication **to a remote automated searchable database through the cellular wireless transceiver**; and	**A. US20070037605** "**Using the location and function database** seen at 323, a cellular phone 301 equipped with **a GPS location sensor may transmit its current location as a geographic position designation comprising a latitude value and a longitude value to the database** 311 when an incoming call arrives and when the cell phone user would normally be alerted." *Logan* at par. 0079 "This measured location may be compared with **a location database to translate the measured position into data which is more easily understandable to the user**, such as "Home", "Office," etc. Such **a database may be remotely located** as discussed in more detail later in connection with FIG. 3." *Logan* at par. 0055
[1.i.] a graphic display configured to present a global positioning system referenced map, and **to display location information received through the cellular wireless transceiver on the graphic display**,	**A. US20070037605** "Oracle8i Spatial may accordingly be used to support web-based searches by proximity from a given location and is designed to facilitate tasks such as supplementing business information with a location attribute (latitude and longitude) and to perform distance queries, and to **present a graphical representation of locations for easier visualization by users**." *Logan* at par. 0132 **B. US6091956** "Accompanying each of the transponder signals is an identification code which uniquely identifies its device by means of which the location of each user is determined and identified by the situation information service provider. **The user's location coordinates** are then transmitted to the user's device for incorporation into display-program variables (not shown) **and presented appropriately on**

	display 4a in FIG. 2." *LBS Innovations* at col. 12:64-67 through col. 13:1-3
[1.j.] wherein **the remote automated searchable database is adapted**: **to receive information from the mobile phone system to search and map the determined global locations where the adjacent mobile wireless communication devices were detected**;	**A. US20070037605** "Another method of setting ring-tone volume and mode would be to do so "globally". In this method, the user would ask the phone (which would work in conjunction with the server and other data sources) to **deduce the social setting and ambient sound characteristics of whatever location the user found himself in**. Thus, **using a detailed database that could correlate GPS coordinates or other location data with building types, functions (subway stations), and settings (outdoors at the beach)**, the system could make certain deductions concerning how loud the ring might need to be to be heard and whether the ring might need to be attenuated for social purposes." *Logan* at par. 0074 **B. US6091956** "FIG. 11 shows **a portion of device** 2g **with display** 4d **which displays exemplary map data of locations in advance of the mobile user's current location** and is called a look ahead session. The **graphically displayed map data, which may consist of mappable hypertext code sequences** such as that shown in FIG. 12, includes element road 3k, elements Deneba 3m and Pietown 3n which represent towns, element mountain 3p, and element Airport 3q." *LBS Innovations* at col. 21:32-39
[1.k.] **to receive further information from a plurality of different mobile phone systems comprising time, global location, and identification of respective adjacent mobile wireless communication devices**; and	**A. US20070037605** "The invention may be advantageously applied to automatically control the characteristics of alert signals issued by portable devices to notify their users when actions (such as answering an incoming call) are expected. **By using the user-defined rules for monitoring the relative and absolute positions of various devices, in combination with user-defined actions which should be performed when associated conditions are satisfied, the system can be tailored to the needs of the particular user and the specific devices which that user owns and operates**." *Logan* at par. 0093 "The **server** 311 **further supports log-in and log-out messages in which a participant posts its current location, telephone number** and offered service to the database 323, or alternatively a location and an indication of the ring tone

(cont.) **[1.k.] to receive further information from a plurality of different mobile phone systems comprising time, global location, and identification of respective adjacent mobile wireless communication devices**; and	characteristics that are appropriate when a requesting cell phone is in the vicinity of that location." *Logan* at par. 0082 **B. US6091956** "6. The system of claim 5 wherein said **location data is provided substantially by said mobile computers with radios to said source of said situation information for information about traffic patterns in said areas whereby traffic data are collected automatically by said radio locating means to aid organization of layout, merchandise, displays, and said user access to said area**." *LBS Innovations* at claim 6
[1.l.] to transmit location information from the database to the mobile phone system for display on the global positioning system referenced map.	**A. US20070037605** "Another method of setting ring-tone volume and mode would be to do so "globally". In this method, the user would ask the phone (which would work in conjunction with the server and other data sources) to **deduce the social setting and ambient sound characteristics of whatever location the user found himself in**. Thus, **using a detailed database that could correlate GPS coordinates or other location data with building types, functions (subway stations), and settings (outdoors at the beach)**, the system could make certain deductions concerning how loud the ring might need to be to be heard and whether the ring might need to be attenuated for social purposes." *Logan* at par. 0074 **B. US6091956** "Accompanying each of the transponder signals is an identification code which uniquely identifies its device by means of which the location of each user is determined and identified by the situation information service provider. **The user's location coordinates are then transmitted to the user's device for incorporation into display-program variables** (not shown) **and presented appropriately on display** 4a in FIG. 2." *LBS Innovations* at col. 12:64-67 through col. 13:1-3