

FIELD OF THE INVENTION

This invention relates generally to an integrated communications system using a plurality of cellular-/PDA/GPS phones for the management of a group of people through the use of a communications net and, specifically, to provide each user with a cellular-/PDA/GPS/phone that has features software application programs and databases that permit all the users to continuously know each other's locations and status, to rapidly call and communicate data voice, high speed internet data, photographs and video clips among the users by touching display screen symbols and to enable the users to easily access data concerning other users and other database information.

DESCRIPTION OF RELATED ART

The purpose of a communications system is to transmit information bearing signals from a source, located at one point, to a user destination, located at another point some distance away. A communications system is generally comprised of three basic elements: transmitter, information channel and receiver. One form of communication in recent years is cellular phone telephony. A network of cellular communication eellssystems set up around an area such as the United States allows multiple users to talk to each other, either on individual calls or on group calls. Some cellular phone services enable a cellular phone to engage in conference calls with a small number of users. Furthermore, cellular conference calls can be established through 800 number services. Cellular telephony also now includes systems that include Global Positioning System (GPS) navigation that utilizes satellite navigation. These devices thus unite cellular phone cellular technology with navigation information and, computer information transmission and receipt of data.

Digital SMS (Smart Message Service (SMS)) and TCP/IP messages can be transmitted using cellular technology such as the various versions of GSM and CDMA or via a WiFi local area network. One implementation of these GPS location reporting cellular systems is for the data to go to a remote central site where the information is displayed for a person to monitor the locations of the cellular units that have the combined cellular GPS cellular-phone. Another implementation permits the cellular phone users to also view the location of other GPS equipped units. A drawback of the current implementation is that these systems are either all on or all off. There is no way to selectively activate participants or to stop the participants from participating in the network Another drawback of theor for participants to set their reporting intervals that is based on time or distance traveled. The use of the current combined cellular phone /PDA technology is that whenhas drawbacks when calling. When an operator makes a cellular phone call using the PDA to display a map (that also may depict

~~georeferenced~~geo-referenced businesses, homes and other facilities' locations and phone numbers), ~~and the operator wants to place a call,~~ the cellular phone/PDA operator is required to ~~obtain~~display the numeric phone number by touching the display screen at the correct location of that entity on the map ~~to obtain, memorize~~ the numeric phone number, ~~then the operator has to memorize the phone number, then go~~ ~~and select~~ a different display to physically enter the phone number; to make the call and then, if desired, go back to the map display. Needless to say, this is a cumbersome process. Sending a text message or an email to a location, business, home or facility that appears on a PDA map display or to another cellular phone can also be a cumbersome process as the PDA operator has to find the phone number or email address of the location on the map display, memorize the phone number or email address, then go to a different display to enter a text message, enter the text message, send the text message and then shift back to the map display program. Furthermore, for a phone to send data concerning a new entity of interest ~~(car, person, tank, accident, or other entity) the operator must type in the information and the latitude and longitude of the entity.~~

~~In spite of the rapid advance in cellular phone technology, it would also be desirable to actuate a remote cellular phone to announce an audio message to alert the remote user that there is an emergency (or for another reason) and that the calling cellular phone should be called immediately. Furthermore, it would be desirable to cause the remote phone to display a text message, photograph, video clip or video transmission, to announce the caller's name and to be able to control a remote phone and cause the remote phone to call another phone number (as an example, to automatically establish an 800 number conference call), to vibrate, or increase the loudness of an announcement without any action by the remote phone operator.~~

~~The present software invention overcomes many of these problems shown in the prior art by providing a cellular phone/PDA/GPS user: a) the ability to selectively poll each of the other PDA/GPS phones to start reporting their positions and status information directly to all or selected users equipped with cellular phone/PDA communication/GPS system in the communications net so that each of the systems that the data is transmitted to is provided a display of the location, status and other information of the other users; b) the ability to exchange other entities of interest information and to assign these entities a category (car, person, tank, accident, or other entity) by touching the display screen at their locations on the map, and selecting the appropriate category switch; c) the ability to make rapid voice and data call initiation to locations, businesses, homes and facilities whose phone number is available in a georeferenced database including the cellular phone/PDA/GPS systems in a communications net by touching the display screen at the appropriate location on the PDA display and selecting a call switch; d) the ability to make rapid voice and~~

~~data conference call initiation to locations, businesses, homes and facilities whose phone number is available in a georeferenced database including the cellular phone/PDA/GPS systems in a communications net by touching the display screen at the appropriate locations on the PDA display and selecting a conference call switch; e) the ability to remotely control from one cellular phone/PDA/GPS any of the other cellular phone/PDA/GPS systems phones including the ability to control remote cellular phones to make verbal prerecorded announcements, place return calls, place calls to another phone number, vibrate, execute text to speech software, change sound intensity and process and display information by touching the display screen at their location on the PDA display and selecting the appropriate switch; and f) the ability to layer a sufficient number of switches or buttons on the PDA display to perform the above functions without overlaying the map-, not currently on the geo-referenced map display (car, person, tank, accident, or other entity), the operator must type in the information and the latitude and longitude of the new entity of interest.~~

U.S. Patent Application No. 2003/0139150 published Jul. 24, 2003 shows a portable navigation and communication system. In one embodiment, the system combines within a single enclosure a GPS satellite positioning unit, mobile telephony using cellular phone technology and personal computing capable of wired or wireless internet or intranet access using a standard operating system. The purpose of this invention is to provide portable navigation for an individual. However, to operate the device, one still needs to utilize a keypad with the telephone functions. U.S. Patent Application No. 2003/0139150 described a wireless communication system operating the PDA in a conventional manner. There is no provision for displaying the location of other similarly equipped systems. There is no provision to cause other similarly equipped cellular phone-/PDA users to transmit their ~~location~~locations. There is no provision for entering other entities of interest by touching the display screen at their locations on a map. There is no provision for making a telephone call by touching the display screen at a net participant's symbol or entered facility (police station, fire station, etc.) symbol to initiate automatically the telephone call to that user or by touching multiple symbols to make conference calls. There is no provision for sending text messages, photographs or videos by touching the net participant(s)' symbol(s) on the display screen to automatically send text messages, photographs or videos to that participant or participants. There is no provision to go to a facility's web site or to automatically fill in a facility's E-mail address. There is no description or disclosure of a procedure to cause digital messages to be sent to a remote cellular phone that would cause the cellular phone to make verbal announcements, increase sound intensity, vibrate or to call back or to call another phone number. There is no description of the uses of layered soft switches which confine the switches to a particular vicinity of the PDA's display screen.

SUMMARY OF THE INVENTION

~~A method and system employing cellular telephone communications to provide the location information to a group of geographically dispersed people, and to enable the rapid transmission of data concerning entities of interest to the members of the group and to coordinate the activities of the group through data and voice communications. Each of the cellular telephones includes a visual display with a touch screen, a global positioning system (GPS) receiver and navigation display, a CPU, memory, power supply, battery, microphone, speaker and commercially available software. To this is added: a) communications data and voice exchange software, b) a map database and a database of geographically referenced fixed locations including military bases, homes, businesses, government facilities, street locations and the like, each with a specified latitude and longitude, along with, if available, phone numbers that are associated with of each of these entities, c) another database with the constantly updated GPS location and status of all the software equipped cellular phone/PDA/GPS systems that are part of the communications net.~~

~~Each cellular phone/PDA/GPS system is identified on the display of the other phone systems by a symbol that is generated to indicate its identity. The symbol is placed at the correct geographical location and is correlated with the map on the display. Each cellular phone/PDA/GPS System may enter other entities (locations of people, vehicles, buildings, facilities, and other entities) plurality of cellular phone/WiFi/PDA/GPS devices each having application software and databases to provide a communication network having: a) the ability to selectively poll each of the other PDA/GPS phone devices with each participant to start reporting its position and status information directly to all or selected users equipped with the same cellular phone/PDA communication/GPS devices in the communications net so that each of the devices that the data is transmitted to is provided a display of the location, status and other information of the other users; b) the ability of each of the cellular phone/PDA devices to report to another device at an operator selected time rate or at a rate based on distance traveled; c) the ability to exchange other entities' of interest information and to assign these entities a category (car, person, tank, accident, or other event) by touching the display screen at the entity's location on the displayed map, and selecting the appropriate category switch; d) the ability to make rapid voice and data call initiation to any other participant in the cellular phone/WiFi net whose phone number is available in a geo-referenced database including the cellular phone/PDA/GPS devices in a communications net by touching the display screen at the appropriate map location on the PDA map display and selecting a call switch; e) the ability to make rapid voice, and conference call initiation to locations, businesses, homes and facilities whose phone numbers are available in a geo-referenced database including the cellular phone/PDA/GPS devices in a communications net by touching~~

the display screen at the appropriate other user locations on the PDA map display and selecting a conference call switch; f) the ability to access a facility's URL or to automatically fill in their E-mail address; g) the ability to remotely control from one cellular phone/PDA/GPS any of the other cellular phone/PDA/GPS systems phones including the ability to control remote cellular phones to make verbal prerecorded announcements, place return calls, place calls to another phone number, vibrate, execute text to speech software, change sound intensity, remotely control software and functions resident on the remote phone and process and display information by touching the display screen at their location on the PDA display and selecting the appropriate switch; and g) the ability to layer a sufficient number of switches or buttons on the PDA display to perform the above functions without overlaying the map. ~~into its database. This information can be likewise transmitted to all the other participants on the communications net. The map, fixed entities, and cellular phone/PDA/GPS System communications net participants' latitude and longitude information is related to the display x, y display locations by a mathematical correlation algorithm.~~

~~When the cellular phone/PDA/GPS System user uses his stylus or finger to touch one or more of the symbols or a location on the cellular phone display, the system's software causes the status and latitude and longitude information concerning that symbol or location to be displayed.~~

~~To operate the present invention, the operator ("cellular phone one" or "phone one") starts the system by selecting the software which causes: a) the cellular phone to initiate (if it has not already been activated), b) the GPS interface to be established, c) a map of the geographic area where the operator is located and operator's own unit symbol to appear at the correct latitude and longitude on the map, d) the locations of people, vehicles, buildings, and the like that are part of the database appear as symbols on the map, e) the system selected item read out area (which provides amplification information for the communications net participant or object that has been touched on the display screen) to appear on the display, f) an insert area that contains various varying data including: the list of net participants, a list of messages to be read, an indication of what portion of the map is being displayed in major area and other information to appear on the display, and g) a row of primary software created "soft switches" that are always present on the display. One of these soft switches when touched causes a matrix of software driven layered switches (soft switches) to appear on the display in place of the readout and insert areas. Some of these soft switches, when touched, cause the system's functions to occur. ~~Other soft switches cause yet another layer of soft switches to appear, replacing those that were previously displayed.~~ The operator is provided an indication of where the operator is in the layer of switches, and is able to return to the previous layer or to cause the~~

Explore Litigation Insights

Docket Alarm provides insights to develop a more informed litigation strategy and the peace of mind of knowing you're on top of things.

Real-Time Litigation Alerts



Keep your litigation team up-to-date with **real-time alerts** and advanced team management tools built for the enterprise, all while greatly reducing PACER spend.

Our comprehensive service means we can handle Federal, State, and Administrative courts across the country.

Advanced Docket Research



With over 230 million records, Docket Alarm's cloud-native docket research platform finds what other services can't. Coverage includes Federal, State, plus PTAB, TTAB, ITC and NLRB decisions, all in one place.

Identify arguments that have been successful in the past with full text, pinpoint searching. Link to case law cited within any court document via Fastcase.

Analytics At Your Fingertips



Learn what happened the last time a particular judge, opposing counsel or company faced cases similar to yours.

Advanced out-of-the-box PTAB and TTAB analytics are always at your fingertips.

API

Docket Alarm offers a powerful API (application programming interface) to developers that want to integrate case filings into their apps.

LAW FIRMS

Build custom dashboards for your attorneys and clients with live data direct from the court.

Automate many repetitive legal tasks like conflict checks, document management, and marketing.

FINANCIAL INSTITUTIONS

Litigation and bankruptcy checks for companies and debtors.

E-DISCOVERY AND LEGAL VENDORS

Sync your system to PACER to automate legal marketing.