The reason why a new system is needed

For democratic countries the interests of the state is tantamount to the interests of the society, ordinary people, for whom the primary need is safety and a sense of security in any place and at any time.

Surely you are familiar with cases of mass shootings in schools, bars, concerts and other public places. Messages about this are in the nature of information about the number of corpses and wounded people. But how often have you read reports that such cases were prevented and all people were saved, including with the help of the mobile applications??

Imagine following situation (it is similar to real past situations, although it is fictitious for the sake of example). The teenager, taking an automatic rifle in his bag, entered the school and headed to his class to shoot all his offenders. In the hallway, he takes the rifle out of his bag, covering it with his jacket and preparing to start shooting in 30 seconds. This rifle is accidentally noticed by a cleaning lady who is cleaning the corridor. At the slightest cry, the teenager begins shooting immediately.

At this time, in the next class there is a chemistry teacher, a man who does not know the cleaning lady, is physically developed and served in the army, who can come out in 10 seconds and disarm this teenager BEFORE HE STARTS SHOOTING. But he doesn’t know or suspect anything. The cleaner has on her phone all the applications with SOS button available on the market. Which of the existing applications will inform a chemistry teacher in 5 seconds that 20 meters away from him, behind the wall of his classroom, his help is needed to save people? There is no such an application now.

In the described case, the cleaner will call 112 or a similar telephone number, the police will arrive in 1-2 minutes (at best) and will see several corpses. Applications existing on the market will also notify the telephone contacts of the cleaner - her husband, son, police officer acquaintance (who are located 5 kilometers from the school). Also, these applications can notify the school security guard on duty (but only if he is included in the cleaning lady’s contact list), who will arrive in 40 seconds from the school reception and will come under rifle fire that is already underway.

None of the existing applications on the market allow a cleaning lady to inform a chemistry teacher that his help is needed 20 meters away, and thus save several people from death.

And dozens, hundreds and thousands of such examples, taken from life, can be given.

I want to come to a big city in your country. I want to be able to walk down the street in the evening, and if a group of drunken, aggressive young men meets me and demands money, I want to have such a button on my smartphone so that after pressing it, 30 seconds later, near me will stand three decent athletes, one former a policeman (who was sitting in a nearby bar), and a military serviceman passing by, all of whom are strangers to me and are not my contacts. Which app do you recommend for me? I and people around don't know such an application. In reality, such a system does not exist anywhere now.

The system I proposed, after its implementation, is exactly the kind of application that you and I need in such situations.

It should be especially noted that this system and its subsequent development are based on the new method of Social Algorithms and on a systematic analysis of the underlying causes of aggression. They are presented in a book available at http://a9414495.eu5.org/anofagr/sysagr.pdf. Therefore, the creation and development of this system by programmers and technical scientists will not bring the desired result, but can only worsen the situation.

Is there an application on the market that allows a woman to press a button 30 seconds before a suicide-terrorist bomb explodes in the city center, and after 20 seconds a former military man who received a message from this application will come from a nearby alley and will understand in 2 seconds what is going on and to neutralize the terrorist and a bomb? If there is no such application on the market, then the police will arrive in 1 minute and see dozens of corpses.

My proposal is to create such an application that prevents deaths, disasters and terrorist attacks. But for this we need to create a whole system. This system is described in my proposal, in my PCT application IB2023/060719 and can be quickly created.

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PCT/IB2023/060719 Patent Application was filed 24.10.2023

This text is the author's translation into English of the text of the international PCT patent application for the invention Method of network electronic multifunctional notification and coordination of actions to provide assistance in emergency situations. It consists of a Description, Claims and Abstract. This application was filed with RO/IB (Geneva) on 24.10.2023 and registered under number PCT/IB2023/060719.

law. The author has the exclusive right to publish, copy, distribute this text, as well as permit or prohibit its use by others.

The presence of a specified international patent application does not currently mean the existence of a patent in a specific country, nor does it currently mean that the method is legally protected from use by others. It means the right of the inventor to file a national patent application in any PCT country within the established time frame (including in 2024-2025). A patent in a particular country may or may not be issued.

Without a patent in a certain country, the author has the right to implement this technology on a general basis in such country. In those countries where the current application is denied a patent, an applications will be filed for other algorithms that are included in the system but not disclosed in the first application . Without these undisclosed algorithms, the system will be ineffective, useless and may even harm people.

If corrupt patent officials and patent trolls interfere with the creation of an effective system by the author, both public and police sanctions will be applied to them. The main fact is that such effective system does not exist anywhere at the moment.

The original of this text (without translation) was published by the author on October 25, 2023 on the Internet, and the publication was documented, including in the archive; and English translation of original text was published on November 6, 2023 on the Internet, and the publication was documented, including in the archive https://archive.li/bhEnt . This means that from 25.10.2023 the described method is the existing state of the art and patent applications of other persons for this method filed after 25.10.2023 do not have a sign of novelty and are not subject to protection. At the same time, for the author of application IB2023/060719, novelty is retained with priority 24.10.2023 for all subsequent national applications filed within the established time frame (for example, in 2024 or 2025). If the PCT application is withdrawn or unpaid, the priority for filing national applications for the author remains until December 24, 2024.

The current absence of a patent in a particular country does not mean that the author is unable to implement the described technology now. The inventor has the right, pending receipt of patent protection or in the absence thereof, to produce and distribute this technology on a general basis in any country, unless the patent rights of others are violated. When a patent is obtained by author in a particular country, after its publication, this technology receives protection from copying and using by others.

This text is the primary text for subsequent editing (within the framework of the declared method), subsequent filing of national applications (within the framework of the described method), entering the necessary references to previous patents, a list of references, changing the claims (within the framework of the described method) and fulfilling the requirements of national legislation in each specific country. Such editing must be performed by patent attorneys. However, with all the changes, the essence of the claimed method remains unchanged.

At the end of the file there is an explanation and comparison of Two possible ways of developing the system (Appendix 1). An explanation The reason why a new system is needed is above.

Abstract

The invention discloses a method of network electronic multifunctional notification and coordination of actions for providing assistance in emergency situations, designed to alert and coordinate the actions of those people who can reach the disaster site faster than the rescue station crew and who can provide assistance.

The method is that, if necessary, to send an emergency signal for help, a person authenticated in the system presses the help program button on his mobile device, and several buttons for types of help appear on the screen. When he presses the desired button, a message for help is automatically sent to the nearest rescue station of the desired type with the coordinates of the disaster site, and at the same time a priority pop-up message is sent about the need for help of a certain type with the distance to the disaster site to all people authenticated in the system who can reach the disaster site faster than the rescue stations crew. The set of people to be notified is determined by the system server using the algorithm of this method. The person who has sent his consent to provide assistance is automatically sent the coordinates of the disaster site, route, and messages to coordinate actions to his mobile device.

The assistance group is limited by the method algorithms to the maximum number specified by the rescue station. At the same time, the people closest to the disaster site and those who have the special skills necessary to help are automatically included in the assistance group in the first place. The members of the assistance group exchange information, and the rescue station manages the operation using the station's program. Data preparation, reception, processing, transmission to mobile devices, and storage are carried out by a central server.

The result of the invention is a reduction in the time before the start of assistance to those in distress and an increase in the number of people competent to provide assistance at the beginning of assistance. The effect of the implementation of this invention is to increase the number of saved lives, health and property saved.

Description

Method of network electronic multifunctional notification and coordination of actions to provide assistance in emergency situations

Field of technology.

The invention relates to the field of Information and communication technologies, as well as to the field of Life-saving.

Current level of the technology.

Providing immediate assistance in disasters or emergency situations is an absolute necessity to save lives, preserve health, property and other valuables. In many cases, salvation depends on minutes and even seconds, for example, in case of dangerous injuries, attacks by bandits, the threat of a man-made disaster, and in many other cases.

Currently, it is possible to make an emergency call to rescue services by telephone or the Internet. For example, in some smartphones there is an SOS button, when pressed a certain number of times, the coordinates and identification data of the person in need of rescue are transmitted to the rescue station.

However, on average, before the rescue service arrives at the scene of an incident, it takes from several minutes (in the city) to several tens of minutes (in remote rural areas). In many cases, during this time, the person in distress either dies or loses health or other valuables.

At the same time, in many cases, there are people next to the person in distress who can provide first aid and save lives or other valuables, and who can arrive at the scene of the incident earlier than the rescue service. But they do not know about the need for help and the whereabouts of the person in distress. A historical example - within direct visibility next to the sinking liner "Titanic" during the disaster, the ship "Californian" was always located, which could have saved all the people on the "Titanic". But he did not accept the transmitted SOS signal and did not come to the rescue, as a result of which more than a thousand people died.

On the Internet, on social networks and instant messengers, there are groups in which a person can convey a message about the need for help. However, these groups do not cover the majority of the population, and the likelihood that any member of such a group will be close to the scene of the incident (closer than the rescue station) at the right time is very small. In addition, such groups do not provide for official liability for the transmission of false signals for help, which is provided for when reporting to rescue stations. This creates the possibility of false signals and distrust of distress signals in such a network in general. In addition, preparing a distress message in an instant messenger or social network requires time, which in many cases the person in distress does not have. In addition, distress coordinates are not automatically transmitted in this case, and additional time is required to enter them into the distress message and route.

Rescue services have the opportunity, after receiving a distress signal, to prepare and transmit a broadcast request for help via radio, television, instant messengers, the Internet and other networks. However, this method has significant disadvantages that make this method ineffective. Firstly, preparing the text of such a message with disaster coordinates and preparing its transmission takes time, from a minute to several minutes, which can be decisive for rescue. Secondly, the number of people

who are connected to the communication channel used for transmission during the transmission of a distress message is limited and often very small. Thirdly, entering the coordinates of the scene of the incident into the map and searching for a route takes time, from several seconds (when receiving coordinates in the messenger) to several minutes (when receiving by radio). Fourthly, with this method, the rescue station does not know the exact number of people rushing to help and cannot coordinate their actions. This reduces the effectiveness of the action and reduces the likelihood of success of the rescue operation. In addition, in some situations, a crowd may arise around the scene of the incident, which will interfere with the actions of rescuers. Fifth, when disaster coordinates are broadcast to the general public without control, it can attract looters, irresponsible amateurs and bandits who can harm a person in distress.

Thus, the technical task is to create a method by which a person in distress would be able to communicate in the shortest possible time (a few seconds) about the disaster, its type and its coordinates, so that people who can help and who are at the moment near the scene of the incident and can reach it faster than the rescue station, could immediately (within a few seconds) receive a distress message and information for the fastest arrival at the scene of the incident, and so that the rescue station could have all the information about people rushing to help, could coordinate their actions and ensure the effectiveness of the operation.

The technical solution to this task is the invention “Method of network electronic multifunctional notification and coordination of actions to provide assistance in emergency situations.”

Brief disclosure of the invention.

The invention is intended to:
- by electronic means, ensure the ability, in the event of an emergency, to transmit via an electronic network in the shortest possible time a message about the need for assistance of a certain established type with the exact geographical coordinates of the scene of the incident simultaneously to the rescue station and to those people who can reach the disaster site faster than the rescue station, and who reported a desire to help;
- immediately provide participants in the rescue operation with a route and operational information about the changing situation;
- ensure coordination and management of the actions of participants in the rescue operation;
- limit the number of participants in the rescue operation;
- ensure priority participation in the operation of the people most skilled to provide assistance;
- create and save audio, video and text materials for subsequent analysis, response and possible litigation.

The technical result of the invention is the creation of a method and software that will ensure the greatest efficiency of rescue operations and assistance in emergency situations.

Briefly, the method is that if it is necessary to send an emergency signal for help, a person authenticated in the system presses the help program button on his mobile device, four buttons appear on the screen according to the type of help (police, ambulance, fire service, emergency service) . The number of buttons for disaster types may be another. When you press the desired button, a help message is immediately sent to the nearest aid station with the coordinates of the disaster site, and at the same time a priority pop-up message is sent about the need for assistance of a certain

type with the distance to the disaster site to all people authenticated in the system who can reach the disaster site faster than the station command salvation. When registering a desire to help from an alerted person, the coordinates of the disaster location, route, messages for effective assistance are immediately sent to this person on his mobile device as a priority pop-up message. The assistance group is limited by the method algorithms to the maximum number specified by the rescue station. At the same time, the people closest to the disaster site and those who have the special skills necessary to help are automatically included in the assistance group in the first place. The members of the assistance group exchange information, and the rescue station manages the operation using the station's program. Data preparation, reception, processing, transmission to mobile devices, and storage are carried out by a central server according to the algorithms described in this description.

The method can also be used for corporate purposes.

Detailed disclosure of the invention.

The described invention includes the joint operation of the following software:

- a new program for transmitting a distress message (TP) for a mobile device with Internet access (for example, a smartphone, tablet and others), either as a separate application or as part of the operating system;
- a new program for receiving distress messages and coordination messages (RP) for a mobile device with Internet access (for example, a smartphone, tablet and others), either as a separate application or as part of the operating system;
- a new computer system program for the rescue station (SP) for receiving, transmitting, processing and storing data necessary to ensure the organization of an effective rescue operation and assistance in emergency situations;
- a new central server (CS) program (with or without a distributed architecture) to receive, transmit, process and store all the data and knowledge necessary to ensure the organization of effective rescue operations and assistance in emergency situations.

In this description the following terms and designations are used:

- system participant - a person who has installed TP and RP software on his mobile device, who has registered his data on the CS, received information about responsibility for his actions, passed authentication and given the necessary consents and permissions;
- type of disaster (also type of assistance) - one of the pre-established types of emergency situations. By default, there are 4 types of disaster - the need to call: 1) police squad, 2) ambulance, 3) fire brigade, 4) emergency rescue team. The number of types may increase as the system develops. When using the system corporately, the corporation itself determines the number and meaning of disaster types.
- rescue station - an organization that officially provides assistance for a given type of disaster in a certain area and has a specific location with coordinates;
- rescue station operator - an employee of the rescue station who is located in it and is responsible for its work at a given time, enters data into the SP and manages the rescue operation;
- a special participant in the system for a given type of disaster - a participant who has a special participant flag and a skill level value for the specified type of disaster in the database on the CS. The flag and skill level value are recorded in the CS database by the rescue station operator at the request of the participant. For example, for disaster type 1, special participants may be police officers, including former, military, other people with special training, for type 2 - doctors, nurses and other people trained to provide medical assistance, and so on;

- system sector - a section of the planet’s surface with boundaries in the form of two parallels with a difference of 0.001 degrees, starting from the equator, and two meridians with a difference of 0.002 degrees, starting from the prime meridian. The sectoring may be changed depending on technical conditions. Each sector has a unique number; each physical sector, which has state borders within the sector, corresponds to two or more sectors of the system with country markers. Any sector can, if necessary, be divided into subsectors (for example, in densely populated areas), with each subsector receiving its own unique number in the system and then participating in the processes of the method along with the sectors;
- mobile device with Internet access - any device that has the functions of immediately receiving and transmitting text messages via the Internet or another network, determining its geographic coordinates using GPS or another method with an accuracy of at least 0.0002 degrees, recording and transmitting audio and video via network, working with digital executable codes (for example, a smartphone or a tablet);
- system (in relation to this invention) – the totality of all people, programs, mathematical and technical means described here and intended to solve the technical task of this invention;

T1 – period for updating the geographical coordinates of participants in the CS database, by default 1 second, can be changed depending on technical conditions;
K1 – reaction speed coefficient of a specific rescue station, the result of dividing the average speed of the station command by the average speed of the participant, recorded by the operator of the rescue station on the CS and is equal to 1 by default;
B1 – distress type number;
R1 – distance from the disaster site to the nearest rescue station of the corresponding type;
R2 – the effective distance from the disaster site to the station, R2=R1/K1, this is the maximum distress notification distance;
RZ – distance from a specific participant to the disaster site at a given time;
N1 – the initial required number of any participants for rescue, by default it is 10;
M1 – maximum allowed number of participants for rescue, default is 20;
D1 – the number of active participants in a specific rescue operation at a given time.

For the joint operation of the specified programs, the following databases are used:

- BPP - a database of all possible participants in rescue operations (including both transmitting a distress message and receiving it), which is stored on the CS, with the following fields: a unique number in the system, mobile electronic device identifier, telephone number, email address, name, surname, citizenship, address, place of work, type and number of identification document, social security number, operating system, RP version, TP version, flag of presence in the system, geographic coordinates at a given time, system sector at a given time, country , flag of a special participant for each type of operation, value of the skill level of a special participant for each type of operation, flag of participation in the corporate system, corporation identifier, corporate identifier of the participant, flag of participation in the rescue operation at a given time and operation number, numbers of previous rescue operations and links to the participant’s results and to his audio, video and text recordings, other data. Filling out all fields is not necessary; to register participant's presence in the system, authentication using one confirmed parameter is sufficient (for example, by phone number, if it is registered to a specific person). The fields may change as the method is used for the purposes of a certain organization and as the system evolves. Filling out the fields is carried out by the RP at the first registration and when making changes, as well as by the CS and SP in the future. Authentication and registration in the system is carried out by the RP each time when accessing the Internet. Confirmation of presence in the system and transmission of new coordinates is carried out by the RP after a certain period of time, by default 1 second, which can be changed by the CS

depending on specific technical conditions. If confirmation of presence in the system is not received, the participant’s presence flag in the system is reset to zero;

- BCO - a database of the current rescue operation, which is created, stored and processed on the CS, with the following fields: a unique operation number in the system, a unique number of the participant who sent the signal for help, disaster type B1, time of receipt of the disaster signal by the server, geographic coordinates of the disaster, current system sector for the disaster site, country, links to transmitted audio, video and text recordings, number of the nearest rescue station, distance from the disaster to the nearest rescue station R1, maximum distance of participants from the disaster site for notification R2, N1, M1, A2 array of sector numbers for searching for participants for the operation, A6 array of participant numbers for notification, A7 array of numbers of participants wishing to provide assistance with a flag of refusal to send coordinates, A8 array of numbers of active participants to whom disaster coordinates were sent with the following nested fields: - geographic coordinates of the active participant at the current point of time, the distance from the active participant to the site of the disaster at a given point in time, the value and direction of the speed of the active participant at a given point of time, links to their transmitted audio, video and text recordings, the level of skill of the active participant for the given type of disaster, - the number of the leader of the rescue operation at a given time, the number of active participants D1, the number of active special participants for this type of disaster, the operation flag in the corporate system, corporation identifier, corporate identifiers of all participants in the operation, operation ending flag, other data;

- BRS - a database of rescue stations, which is created in advance, stored and processed at the CS, with the following fields: unique number of the station in the system, type of disaster, geographic coordinates of the station, system sector for the station, country, K1, N1, M1, station flag in the corporate system, corporation identifier, other data;

- BSP - a database of system sectors parameters, which is created in advance by calculations, stored and processed at the CS, with the following fields: unique sector number, minimum and maximum values of the geographic coordinates of this sector, country, A1 - array of rescue station numbers for finding the nearest rescue station in case of disaster in the given sector for each type of disaster, A2 - array of sector numbers for searching for participants when a disaster site appears in a given sector for each type of disaster and for each possible rescue station of this type for this sector, border sector flag, A3 - array of permissible coordinate ranges of the border sector, other data;

- BCS - a database of current states of sectors, which is updated with a period of T1, stored and processed at the CS, with the following fields: sector number, country, number of participants in the sector at a given time, A4 array of participant numbers who are in this sector at a given time moment of time, number of special participants in the sector at a given time, A5 array of numbers of special participants who are in this sector at a given time, other data.

Depending on the technical conditions and architecture of the server, databases can be structured in other ways, preserving the specified purpose and data types.

The sequence of actions when using the method is as follows. At the CS, after dividing the planet's surface into sectors, the necessary calculations are carried out and the BRS and BSP databases are filled. Wherein, A1 is created by selecting stations with a minimum distance to each corner of the sector, A2 for sector number SX is created by calculating the distance RX from this station to the corner of the SX sector farthest

from the station, calculating the distance RY from each corner of the SX sector to the corner closest to it another sector SY and checking the condition RY<(RX/K1), A3 is created by dividing the sector into sections according to state borders and checking that this section belongs to a particular country. Other algorithms may be used to populate databases.

PB and PP are distributed as one application or part of the operating system of a mobile device. When registering participants and each authentication, the databases of possible participants BPP and the current states of the sectors BCS are filled in.

When a disaster situation arises, a participant wishing to send a distress signal opens the TP on their mobile device with one pressing. Four buttons corresponding to the types of disaster appear on the screen, with inscriptions and icons (the number of buttons may vary depending on the number of disaster types in the system). At the same time, a warning appears about liability for false messages. When pressing the button according to the type of disaster, the current coordinates of the participant's mobile device (disaster point), its number, type of disaster and other data are immediately transmitted to the CS over the network. TP automatically turns on the camera, microphone of the mobile device in the background, recording audio and video and transmitting them in the background to the CS over the network with possible quality. The CS sends a confirmation of receipt to the TP, after which a confirmation of receipt of the distress signal appears on the screen of the mobile device and a window asking to immediately enter a description of the distress situation, if there is time for this. The entered text is immediately transmitted to the CS, from the CS to the rescue station, and with the approval of the station to the active participants, all or some.

When the CS first receives a distress message with coordinates, it immediately creates a new BCO using the bases of the BSP, BRS, BPP and BCS, immediately calculates the nearest rescue station of the corresponding type from the A1 array, immediately sends the distress coordinates and all data arriving at the CS to this station. The time it takes for the station to receive distress coordinates is no more than a second after the signal is sent, but may vary depending on technical conditions. The station operator begins to manage the operation using the SP and, as necessary, changing the parameters in the BCO on the CS, sending messages to the active participants, appointing a leader of the rescue operation from among the active participants and carrying out other actions.

At the same time, the CS, upon first receiving a distress message with coordinates, using the bases of the BSP, BRS, BPP and BCS, calculates R1 and R2, then for each sector from the A2 array and for each participant registered in this sector in the A4 array in the BTS, calculates the distance RZ from this specific participant to the disaster site, checks the condition RZ<R2 and in case this condition is true (that is, if this participant is able to provide assistance earlier than the rescue station), enters the number of this participant into the A6 array, and immediately sends to participant mobile device for the RP a priority pop-up message that at a distance of RZ from him a person asks for immediate help type B1, and if he can immediately go to help, press the consent button for assistance on the screen. Simultaneously with this message, the RP displays a consent button to provide assistance on the screen. The time it takes for the RP to receive a distress message is no more than a second after the signal is given, but may vary depending on technical conditions. When pressing the consent button to provide assistance, the RP immediately transmits a consent signal to the CS, the participant's number is entered into the A7 array. From the CS to the participant is immediately sent the coordinates of the disaster and a file with his route to the disaster site, which is displayed by the RP on the screen of the mobile device. The RP sends confirmation of the receipt of coordinates to the CS, the number of this

participant is entered by the CS into array A8, D1 is increased by 1. The RP opens windows on the screen of the mobile device for exchanging messages with the rescue station, with the leader of the operation and with other active participants. The RP opens the Maps application (if available) and displays the route and movement of the participant to the disaster site. The RP in the background turns on a camera, a microphone of a mobile device, recording audio and video and transmitting them in the background to the CS over the network with possible quality.

After each new participant is added to array A8, the condition D1<N1 is checked. If it is not fulfilled, then all subsequent messages about the desire to help from participants are processed according to the following algorithm. If the current distance from the new participant to the disaster site is less than the shortest current distance of all current participants to the disaster site (condition Rmin), then the new participant is entered into array A7, and all subsequent actions are performed for it like for the active participant.

If condition Rmin is not true, then the participant is entered into array A7, then condition D1<M1 (condition Dmax) is checked.

If the Dmax condition is satisfied, then the special participant flag is checked. If this flag is equal to 1 (the participant is special), then the distress coordinates are sent to the participant and all subsequent actions are performed with entering into the A8 array. If this flag is equal to 0 (the participant is not special), then flag 1 of refusal to send coordinates in the A7 array is assigned to it, and no further actions are performed for it.

If the Dmax condition is not true, the participant who sent the message about the desire to help is assigned flag 1 of refusal to send coordinates in the A7 array, and no further actions are performed for him.

Thus, from all participants located at a distance of less than R2 from the disaster site, the method ensures unhindered including into the help group of N1 first participants who sent consent, then unhindered including into the help group the first special participants who sent consent until the number of M1 in the group. In any case, every participant who is closest to the disaster site at the time the CS receives its message of consent to help is included in the assistance group, even if there are already M1 number of people in it.

At this time, the rescue station operator, using the SP, can send messages to any participant, out of turn include participants of his choice in the help group and exclude participants from the help group, appoint an operation leader, quickly change the values of K1, N1, M1, and perform other management actions operation. The SP displays for the operator of the rescue station a map with the initial and current location of the disaster, with the current location of each participant, the value and direction of his speed, as well as all messages. The station operator can use audio and video transmitted to the CS during the operation. At this time, the participants exchange messages with each other and with the leader of the operation.

A separate SP procedure allows the station operator to set a point on the map and send a distress signal to the CS in the same way as it would be sent from the operator’s mobile device at this point. This allows the method of this invention to be used when the rescue station receives distress information from other sources.

A separate SP procedure allows the station operator to transmit a priority pop-up message, for example about the danger of approaching a point selected by the

operator, to all participants located closer to this point than the distance set by the operator .

In this way, the result of the rescue (assistance) operation is achieved with maximum efficiency. Since the databases of BPP, BRS, BSP, BCS are created in advance, all mass calculations in the system are carried out in the shortest possible time.

When an operation is completed, the station operator enters a completion command in the SP, it sets the operation ending flag 1 in the BCO, and the CS sends completion commands to all the RPs of the active participants and the TP. All data is archived for further analysis and possible use in court.

If the described method is applied by a certain corporation, the number and meaning of disaster types can be any and is established by the corporation.

The algorithms described above, initial values of variables, database architecture, and technical means used can be changed depending on the conditions for using the method within its framework.

Implementation of the invention.

The described method, after creating new program codes, can work on currently existing mobile devices and develop as they are improved. The technical result of the invention is to reduce the time before the start of assistance to those in distress and to increase the number of people competent to provide assistance at the beginning of assistance. The effect of the implementation of this invention is to increase the number of saved lives, health and property saved.

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Claims

1. A method of network electronic multifunctional notification and coordination of actions to provide assistance in emergency situations, comprising:

- a signal about the need for emergency assistance of a certain type established in the system is sent by a participant authenticated in the system from his mobile device via the Internet simultaneously to a rescue station of the corresponding type and to all participants authenticated in the system who have the opportunity to reach the disaster site earlier than the rescue station crew;
- to the rescue station, the geographic coordinates of the disaster site from the mobile device that sent the signal for help are received immediately along with the signal, and the participants, simultaneously with the signal, receive the distance from the specific participant to the disaster site, the type of disaster and a request for help;
- geographic coordinates of the disaster site and the route are sent to the participant who received the signal only after receiving consent from him to provide assistance.

2. A method as in claim 1, which also includes creating an array of participants for disaster notification by checking the condition RZ<R2, where RZ is the distance from a specific participant to the disaster site, R2=R1/K1, R1 is the distance from the disaster site to the nearest station, K1 is the reaction speed coefficient of a specific rescue station, the result of dividing the average speed of the station command by the average speed of the participant, K1 is set on the central server by the rescue station operator.

3. A method as in claim 1, which also includes the immediate automatic opening of separate windows on the screens of mobile devices of active participants for instant messaging with the station and with other active participants.

4. A method as in claim 1, which also includes the immediate automatic activation of the camera and microphone, recording and transmission to the server of audio and video in the background of the mobile devices of the person who signaled for help and the active participants.

5. A method as in claims 1 and 3, which involves sending messages to participants in the form of priority pop-up messages.

6. A method as in claims 1, 2, 3, 4, 5, in which instead of the Internet, any other data transmission network is used, partially or completely, allowing the performing of the functions described in points 1, 2, 3, 4, 5.

7. A method as in claims 1, 2, 3, 4, 5, in which the functions described in points 1, 2, 3, 4, 5 are carried out, partially or completely, by means of the operating system of the participant’s mobile device.

8. A method of sending a signal for help from a mobile device, comprising that after pressing the distress signal button, buttons appear on the screen, the number of which corresponds to the number of distress types installed in the system, and a distress signal of a certain type is transmitted over the network when the button of the corresponding type is pressed .

9. A method for limiting the number of system participants in a group for providing assistance, which consists of the fact that of the participants notified of a disaster, the first N1 participants who agreed to help are automatically included in the group without restrictions; the following participants who agreed to help are automatically included in the help group only if they are marked as special participants on the

system server; When the total number of participants in the assistance group reaches the number M1, recruitment into it stops, and that numbers N1 and M1 are set in the system in advance by the rescue station, but can be changed during the process of recruiting participants into the assistance group.

10. A method as in claim 9, in which the participant who is currently closer to the disaster site than all other participants in the group is freely included in the assistance group at any time.

11. A method for accelerating of the determination of a set of participants for a disaster notification, comprising that the entire surface of the planet is divided into sectors with a unique number, the mobile device of each participant periodically automatically registers its current coordinates on the system server, the server determines the current location sector of participant, using these coordinates, and when a distress signal of a certain type is sent from a certain sector, the server checks the conditions for sending a notification only for those participants whose current sector belongs to an array of sectors that corresponds to the sector of the distress signal, and the specified array is calculated in advance and stored on the system server.

12. A method as in claim 11, which also includes dividing some sectors into subsectors, which are assigned their own unique number, and which participate in system processes along with sectors.

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Appendix 1: Two ways of system development

There are two ways to develop and implement this system. The first way is that in each country that understands the need and usefulness of this system, several companies begin writing codes. In this case there is no patent. They demonstrate their finished programs and mobile applications to competent government organizations that will install system programs on their rescue stations.

A tender is held, the requirements of which are determined based on the knowledge that civil servants of ministries have and may be insufficient for the full operation of the system. Government organizations select the cheapest system, implement and distribute it. At the same time, different types of rescue services belong to different ministries, and their choice may be different. In some countries, such differences can lead to either a delayed tender, an impossibility, or a system that breaks down into separate parts even in one country or one region.

The advantage of this approach is that there is free competition and any programmer who has free time and any company that can invest money in development can develop codes.

However, only one company will receive the contract and income. Choosing a product via tender based on the principle of cheapness does not necessarily mean that it is better than others in terms of reliability, functionality and the final result - based on the principle of cheapness, the result may be the opposite.

In addition, in many countries this tender will be a tasty morsel for corruption, various frauds and intrigues.

A company that does not have a patent and that did not invent the system’s algorithms cannot fully understand the path of its development. Therefore, the system either does not develop or develops very slowly.

What about those companies that lost the tender? Imagine that you have invested one hundred thousand in coding, and after the tender you have to forget about this money. Moreover, you are sure that your product is functional and more reliable than the one that won the tender. Negative emotions can lead to creating by programmers viruses and fakes aimed specifically at discrediting this system, and with a high probability they will succeed.

If, for example, a multiplicity of Linux distributions lead to frequent freezing and limited running applications (that is, to user discomfort), then multiplicity of versions of the life-saving system will inevitably lead to the loss of human lives, catastrophe and suffering that could have been prevented.

Once the system shows its inability to work and save people several times, trust in it will be lost, and its public support will be nullified. Which will automatically lead to its complete inoperability.

As we see, in this version of “free competition” the negative aspects are so enormous that they will lead not only to the complete collapse of the system, but also to significant harm to society and to specific people.

In addition, in different countries, with this option, different systems will be implemented, and a person will not feel protected when traveling to other countries. This is especially important for the EU, where movement is not limited.

An alternative to such a flawed path is the second option for developing and implementing the system. It consists in the fact that the basic algorithms of the system will be patented in all countries of the world by the author of the algorithms (who already knows the development paths) and by a large company that can guarantee the reliability of coding and the rapid distribution of the system in most countries of the world.

In this option, the presence of a patent provides protection for the development company from possible competitors in most countries of the world. Nobody spends money on development irrevocably, none of the programmers are left offended, and no one has a motive to write viruses and harm the system.

The unity of the system for most countries in this version will lead to the fact that a person will be protected wherever he is.

In addition, in this development option, the system will be several times cheaper for rescue stations and ministries due to the large volume of sales around the world. High sales volume also allows us to maximize system reliability, quality of service and operational efficiency, which is measured in lives and valuables saved.

In addition, in this option, the development company bears full responsibility for the operation of the system. The issue of combating monopolism in the presence of a patent for basic algorithms is solved by two versions of codes, for example, written in different programming languages.

As you can see, the first and second options for developing the system lead to completely different results.

