

First Aid Assistance Service

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Abstract—The first medical aid may be delivered untimely due to some difficulties such as a traffic jams, a lack of free ambulances, etc. Volunteers may be involved to decrease the emergency response time. The proposed first aid assistance service enables the first aid to be delivered from volunteers to patients.

All panic signals are processed by dispatching service that automatically distributes patients who need to get help to free nearby volunteers according to their locations. Electronic Health Record service provide medical information about patient. And First Aid Guide service gives number of first aid steps to volunteers according to patient state, as it is shown in Fig. 1.

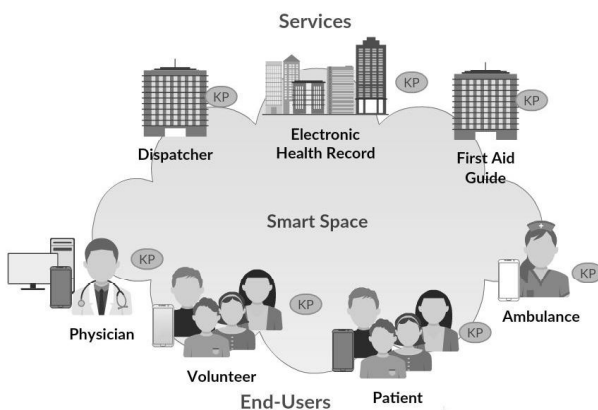


Fig. 1. Architecture of First Aid Assistance Service

The users are authenticated through their account and publish their current location. When a patient feels bad and needs medical help, he may send panic signals using the mobile application, as it is shown in Fig. 2. A volunteer uses the similar mobile application to receive such notification, as it is shown in Fig. 2. He may accept help request or reject it.

In case of a positive answer, a route from patient to volunteer is built.

The service uses Smart-M3 platform and a software framework SmartSlog for a virtual information environment construction of the user and the publication of information to smart space based on a given ontological model. Information describing the interaction of participants in the smart space is presented in the ontological model, which is part of the application.

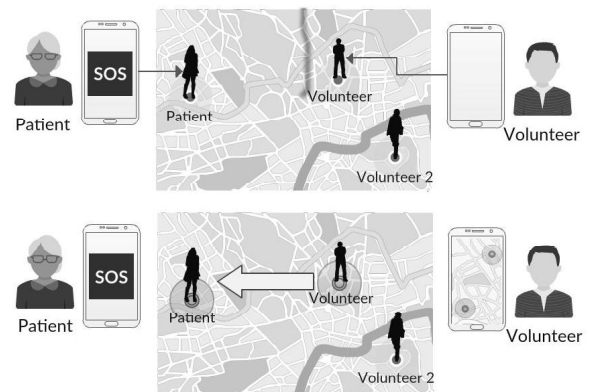


Fig. 2. First aid scenario: panic button.

ACKNOWLEDGMENT

This research is financially supported by the Ministry of Education and Science of the Russian Federation within project # 14.574.21.0060 (RFMEFI57414X0060) of Federal Target Program “Research and development on priority directions of scientific-technological complex of Russia for 2014–2020”. The reported study was partially funded by RFBR according to research project # 16-07-01289.