

Increasing shared information availability during urban emergency responses

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Abstract

Firefighters are responsible for dealing with several types of urban emergencies, such as fires, car crashes and explosions. The participants in an emergency response process require shared information to make effective, on-time decisions, and to coordinate their activities. The information sharing process is currently performed using message exchange through a radio system. However, limitations in this communication medium jeopardize information availability during the emergency. This may produce undesirable situations, such as lack of coordination among firefighters or wrong decisions due to lack of supporting information. As a way to deal with the problem, this article proposes a computer-based system, which complements the radio system. The system helps increase the availability of the information that is most frequently requested by firefighters in the field, identified by a study of 65 past emergencies. The results of a preliminary evaluation indicate the solution is able to ensure the availability of at least the 30% of the most requested information during an emergency.

Keywords

Fires, Software, Availability, Communication channels, Emergency services, Proposals, Collaboration.