5G Safety - Phase 1 Industrial survey, sub-phase IR.3

A study on unified user experience

Result IR.9 activity T.3.2. Mobile Apps and Interaction Modalities

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1. Abstract

The document presents the conceptual design of user interfaces intended for dispatchers in call centres for the fire service and regional information centres. The results were based on the analysis of the given functional requirements and comments by domain experts, initial focus groups with target users (dispatchers) and final focus groups, which resulted in the optimization of the first design versions produced. Despite the initial premise that these are fundamentally separate domains, during the development of wire frames it was found that by including some additional settings of the interface itself, it would be possible to create a universal user interface that would cover both domains. Within all focus groups, the desire to integrate subsystems and keep statistics in one common system was repeatedly expressed. Users also expressed a desire to automatically retrieve data from the subsystems and record the final report, without additional interactions. The content displayed on the screen should be limited (by principle, less is more) and displayed with appropriate contrast and spacing, which helps to read the situation and needs more easily. Following the completion of evaluations with end users, it was also found that the proposed method of interaction and user interface layout would greatly contribute to the efficiency of the work of dispatchers in ReCO call centres and fire brigades.

For measuring the user experience and usability of the proposed interface concept, the basic graphical design of the user interface was added to the wire frames and the basic gestures for screen management were implemented. This was done exclusively for the needs of performing user experience evaluations and was not part of the task. The developed interface concept was additionally tested by measuring user experience and usability using standard methods (UEQ and SUS questionnaires).

The results of the implemented focus groups are encouraging, as they show the suitability of the proposed user interface design. The produced wire frame models thus represent a good basis for upgrading with graphic design and implementation in program code in the selected target environment. In the later stages of development, it would make sense to implement focus groups by involving additional end users, which can provide additional feedback on the adequacy of the implemented solution on the target platform, which necessarily requires the development of the suitable graphical design.