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

Report on laboratory prototyping and validation for the dispatcher as a service

Result IR.7 activity T.3.1. Dispatcher as a service

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1. Abstract

The abstract is made on the basis of the document IR.7: Report on laboratory prototyping and validation for the dispatcher as a service, which is the result of task T.3.1. Dispatcher as a service of the 5G Safety project.

The document presents the results of the design and prototyping of the new components and building blocks for the dispatcher as a service (DPaaS). The DPaaS components and the prototype implementation have been tested in the laboratory environment.

The basic idea of the DPaaS prototype was to enable mutual communication between users of critical communications (MCX) with equipment of different generations and types (DMR, MCX clients). The common point of all communications is the WebRTC conference, which enables audio and also visual communication. With the intervention of the DPaaS dispatcher, communication outside the MCX environment is also enabled (scenarios with an expert involved, public and private PPDR network, emergency call 112).

Document IR.7 The report on laboratory prototyping and validation for the dispatcher as a service contains a presentation of the project from concept to prototype. The document is divided into the following sections:

- **Changes in the conceptual design of the DPaaS system**, which includes the presentation of the basic concept of the solution and the definition of the necessary changes in relation to the original concept.
- **Dispatcher services in the DPaaS system**, this chapter provides a list of the functionalities (services) that DPaaS supports. A description of them is also available.
- **Validation of technologies and architectural concepts**, this chapter describes the building blocks of the system, their interfaces, connections with the environment and communication flow for supported services.
- **Preparation of the laboratory environment,** this chapter describes the test environment, its individual components and their placement in the laboratory environment.
- **Testing and validation in a laboratory environment**, this chapter describes the installation and configuration of the system, testing the login of users to the system, checking services, security and availability. It also contains the results of validation in the laboratory environment.

Validation procedures and test results in the laboratory environment have shown that the chosen concept is possible. This fact gives good reason for further improvement and development in order to validate DPaaS system in a demonstration environment of wider dimensions.