IN-PREP

"An INtegrated next generation PREParedness programme for improving effective inter-organisational response capacity in complex environments of disasters and causes of crises"

D5.1 Interoperable communication adapters (Iteration One)

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Document Summary Information

Grant Agreement No	740627	**Acronym**	IN-PREP
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Executive Summary

IN-PREP's overarching goal is to support collaborative response planning and training for transboundary disasters and causes of crises. To do so, IN-PREP delivers the Mixed Reality Preparedness Platform and a Handbook that supports Preparedness that allow civil protection agencies to: 1. Make/enter a plan; 2. Create a scenario; 3. Define criteria to test; 4. Play (train); 5. Score, assess and 6. Adapt.

All above are realized thanks to the IN-PREP tools, namely:

1. The Scenario Builder (SB) for dynamically creating, editing, storing and executing training scenarios;
2. The Modelling tools for risk and impact assessments which enhance the dynamicity and realism of the training session and further to that facilitate collaborative response planning process;
3. The Training Platform for sharing the operational picture to decision makers and merging response plans whilst evaluating achievement of training objectives;
4. The C2s that allow insertion of individual response plans and support operational and tactical management during a training session;
5. The Recommendations Engine that supports decision-making in the form of notifications (the latter visualized in the Training Platform);
6. The Communication Modules (i.e. Emergency Management Content Router and Data Distribution Module) which interconnect all above sub-systems.

The Communication Framework of IN-PREP is primarily part of the «Application Layer» of the TCP/IP model. In IN-PREP there are two modules that are responsible for this communication, the Emergency Message Content Router (EMCR) and the Data Distribution Module (DDM). All IN-PREP sub-systems bi-directionally communicate with these two modules in order to exchange information in a reliable and efficient way, in real time. The EMCR is mainly used for exchanging operational information, such as dispatching, availability of assets, tasking and notifications from the field, whereas DDM facilitates the interconnection of the Training Platform with the scenario storyline, the modeling results and decision-making aspects. Special attention has been payed to incorporating and complying to information and data exchange standards, ensuring in this way that the IN-PREP system is extendable, scalable and ready to be connected, with little or no effort, to other legacy or external sub-systems.

This deliverable focuses on the implementation aspects of Emergency Message Content Router (EMCR) and the Data Distribution Module (DDM). It is intended to be used as a guidance for developing EMCR and DDM adapters for facilitating the communication between various components.

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