



## Attachment to Final Report

<b>Instrument</b>	Collaborative Project
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<b>Project Acronym</b>	A4A
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<b>Project Duration</b>	33 months

<b>Document History</b>			
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## List of Acronyms

A4A	Alert for All
ASM	Alert Simulation Module
DVB-S	Digital Video Broadcast – Satellite
DVB-SH	Digital Video Broadcast to Satellite Handhelds
DVB-T2	Digital Video Broadcast – Second generation Terrestrial
GAG	Global Alerting Gateway
GNSS	Global Navigation Satellite System
HbbTV	Hybrid Broadcast Broadband TV
IMP	Information Management Portal
SNM	Screening of New Media tool

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# 1 Introduction

This document contains information about the A4A project partners, the project logo, diagrams and photographs illustrating and promoting the work done in the project (including links to videos that have been published in internet).



## 2 Project Partners

Partner	Short Name	Web	Contact
Deutsches Zentrum für Luft- und Raumfahrt e.V.	DLR	<a href="http://www.dlr.de">www.dlr.de</a>	Mrs. Cristina Párraga Niebla <a href="mailto:Cristina.Parraga@dlr.de">Cristina.Parraga@dlr.de</a>
German Red Cross	DRK	<a href="http://www.drk.de">www.drk.de</a>	Mr. Matthias Max <a href="mailto:MaxM@drk.de">MaxM@drk.de</a>
Avanti Communications	AVA	<a href="http://www.avantiplc.com">www.avantiplc.com</a>	Mr. Joseph Muna <a href="mailto:Joseph.Muna@avantiplc.com">Joseph.Muna@avantiplc.com</a>
British Association of Public Safety Officials	BAPCO	<a href="http://www.bapcojournal.com">www.bapcojournal.com</a>	Mr. Paul Hirst <a href="mailto:euprojects@bapco.org.uk">euprojects@bapco.org.uk</a>
Tecnosylva S.L.	TSYL	<a href="http://tecnosylva.com">http://tecnosylva.com</a>	Dr. Joaquin Ramirez <a href="mailto:jramirez@tecnosylva.com">jramirez@tecnosylva.com</a>
EDISOFT	EDI	<a href="http://www.edisoft.pt">www.edisoft.pt</a>	Mr. Antonio Chagas <a href="mailto:Antonio.chagas@edisoft.pt">Antonio.chagas@edisoft.pt</a>
TECNALIA Research & Innovation	Tecnalia	<a href="http://www.tecnalia.com">www.tecnalia.com</a>	Mrs. Maribel Narganes <a href="mailto:Maribel.narganes@tecnalia.com">Maribel.narganes@tecnalia.com</a>
University of Stuttgart IAT	USTUTT	<a href="http://www.iat-uni-stuttgart.de">www.iat-uni-stuttgart.de</a>	Dr. Wolf Engelbach <a href="mailto:wolf.engelbach@iat.uni-stuttgart.de">wolf.engelbach@iat.uni-stuttgart.de</a>
Swedish Defence Research Agency	FOI	<a href="http://www.foi.se">www.foi.se</a>	Dr. Joel Brynielsson <a href="mailto:joel.brynielsson@foi.se">joel.brynielsson@foi.se</a>
Federal Office of Civil Protection and Disaster Assistance in Germany	BBK	<a href="http://www.bbk.bund.de">www.bbk.bund.de</a>	Mr. Gerrit Moews <a href="mailto:gerrit.moews@bbk.bund.de">gerrit.moews@bbk.bund.de</a>
Eutelsat S.A.	EUT	<a href="http://www.eutelsat.com">www.eutelsat.com</a>	Mrs. Roberta Campo <a href="mailto:rcampo@eutelsat.fr">rcampo@eutelsat.fr</a>
Institut fuer Rundfunktechnik	IRT	<a href="http://www.irt.de">www.irt.de</a>	Mr. Ralf Neudel <a href="mailto:neudel@irt.de">neudel@irt.de</a>

### **3 Project Material**

#### **3.1 Project Logo**



Figure 3-1: Alert4All logo

#### **3.2 Links to Project Video / Interviews / Video Presentations**

[www.alert4all.eu](http://www.alert4all.eu)

<http://www.youtube.com/watch?v=EiowVQISN30>

<http://www.youtube.com/watch?v=0OE8ZXOPpb8>

[http://www.youtube.com/watch?v=9aWlbVzJk\\_M](http://www.youtube.com/watch?v=9aWlbVzJk_M)

<http://www.youtube.com/watch?v=l481YNtkcnU>

<http://www.youtube.com/watch?v=WwOxI5Vr68Q>

<http://www.youtube.com/watch?v=a2KPXXnw0gs>

### 3.3 Diagrams and Figures of the Overall System

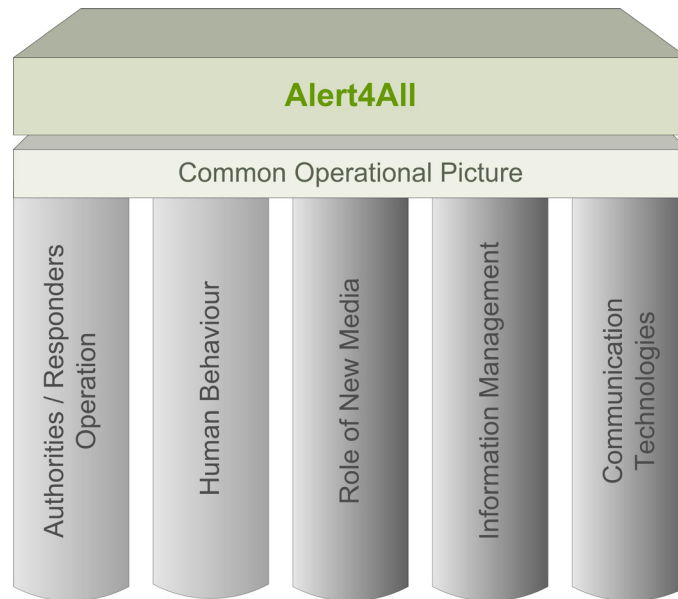


Figure 3-2: Alert4All research areas

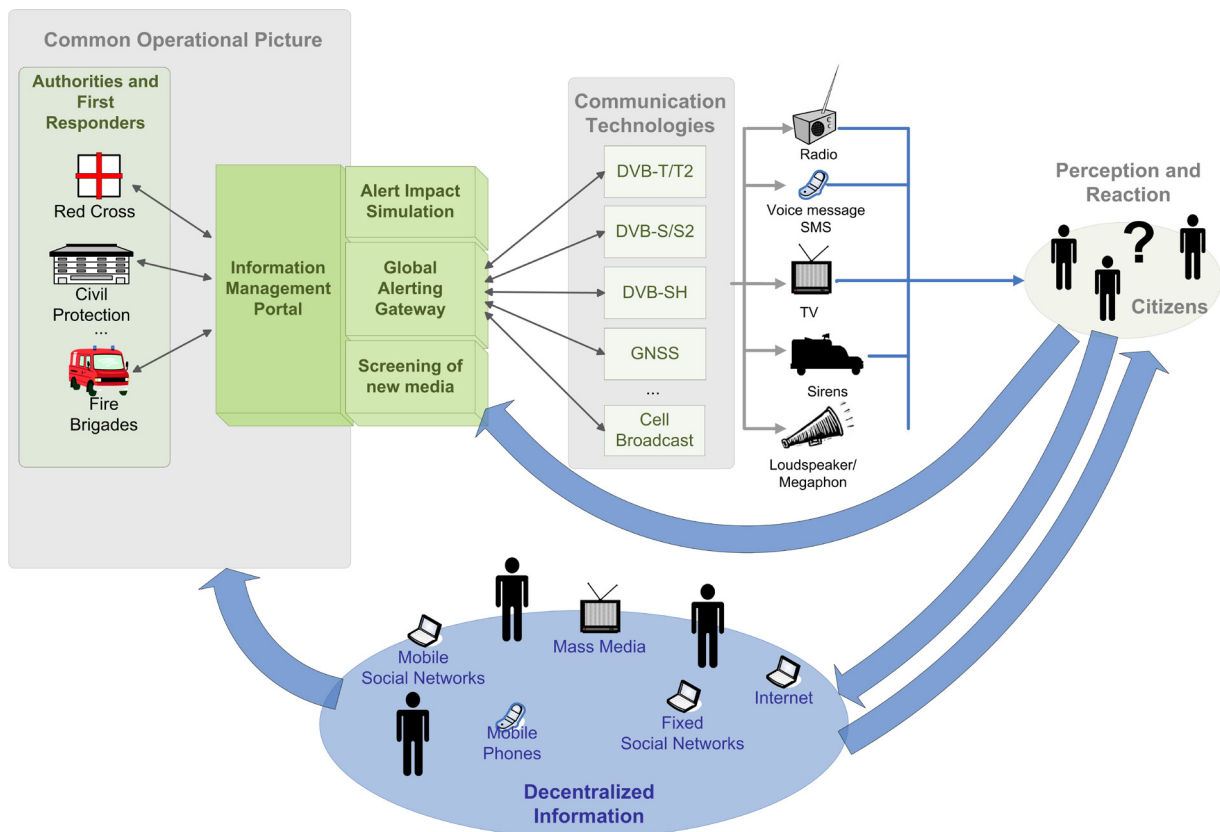


Figure 3-3: Alert4All concept

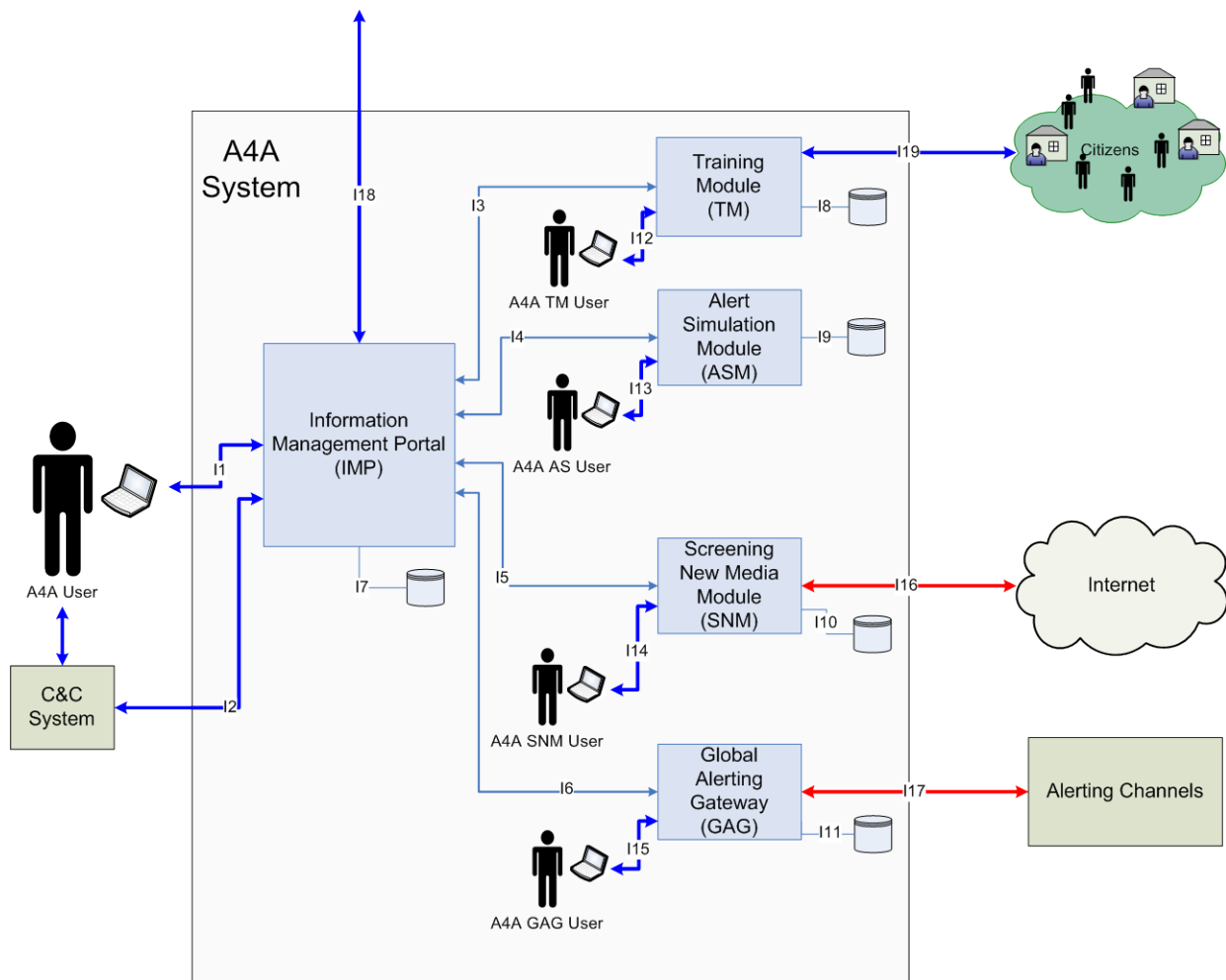


Figure 3-4: Alert4All system architecture diagram

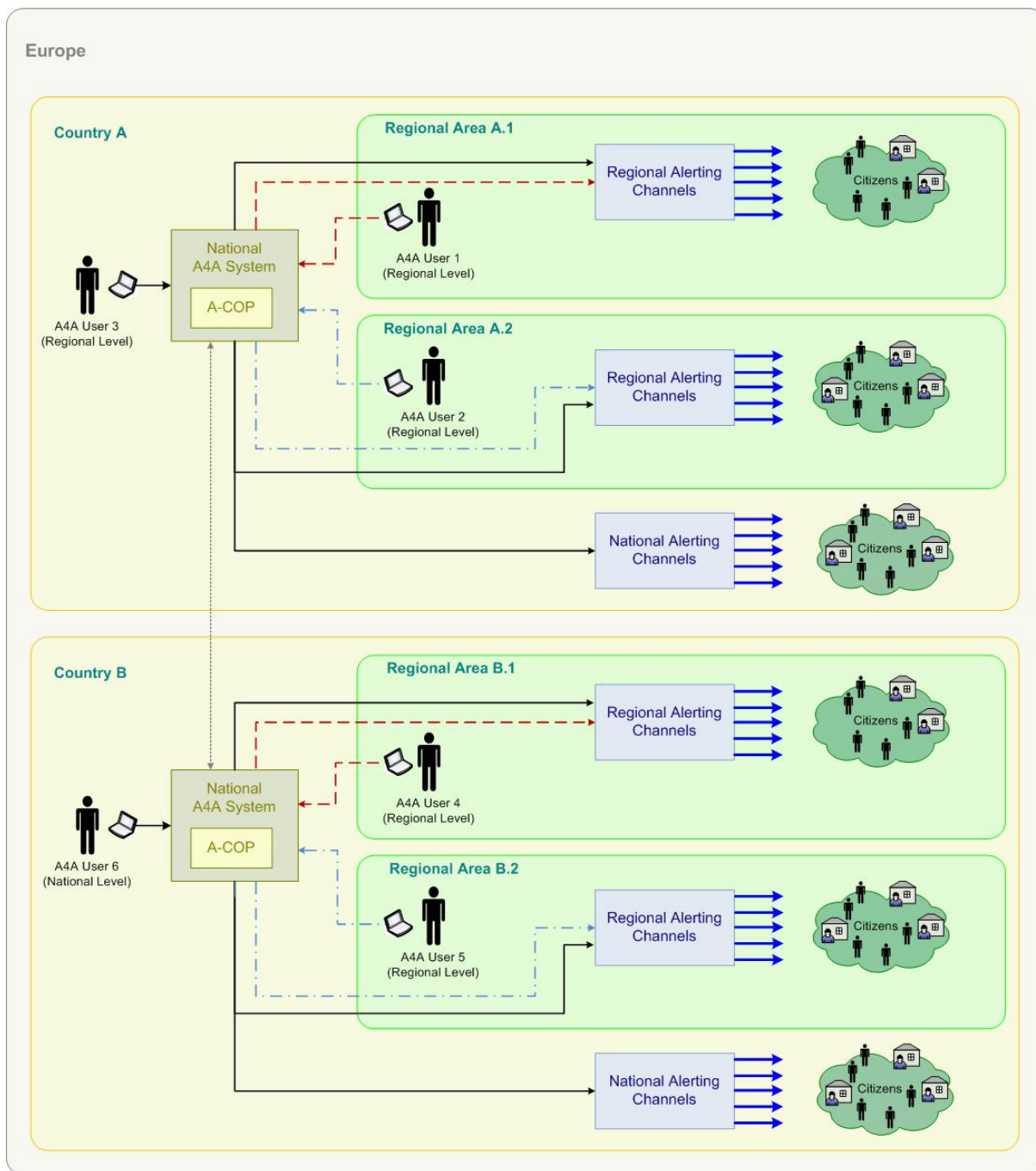


Figure 3-5: Alert4All partly distributed deployment architecture

### 3.4 Diagrams and Figures of the A4A Sub-Systems

#### 3.4.1 The Information Management Portal (IMP)

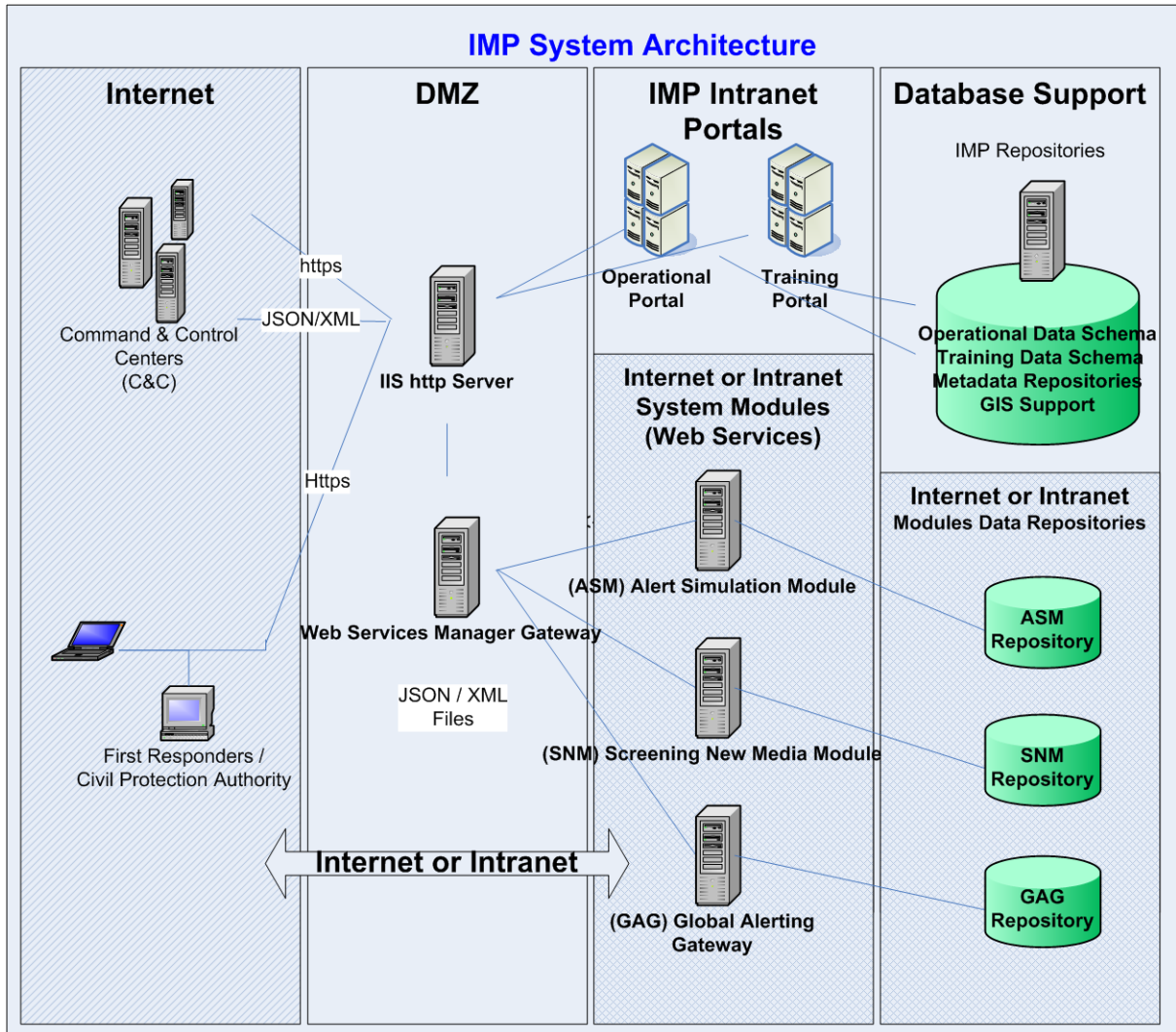


Figure 3-6: IMP system architecture

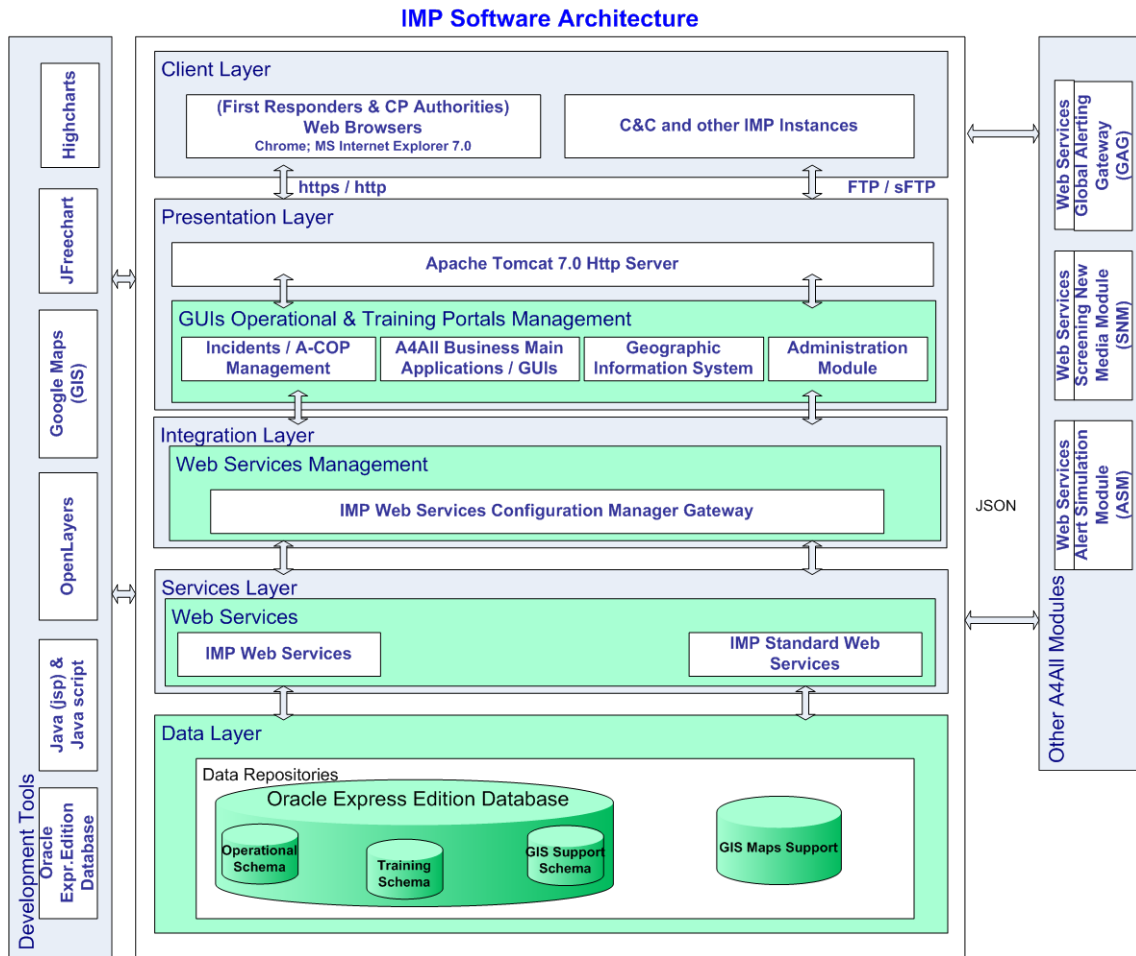


Figure 3-7: IMP software architecture

### 3.4.2 The Alert Simulation Module (ASM)

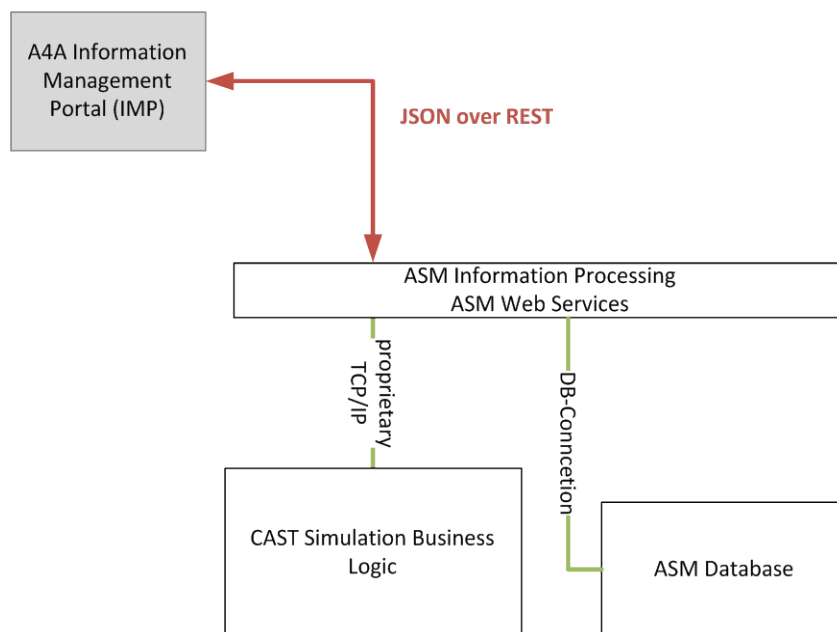


Figure 3-8: Alert Simulation Module (ASM) system architecture



### 3.4.3 The Screening of New Media (SNM) Tool

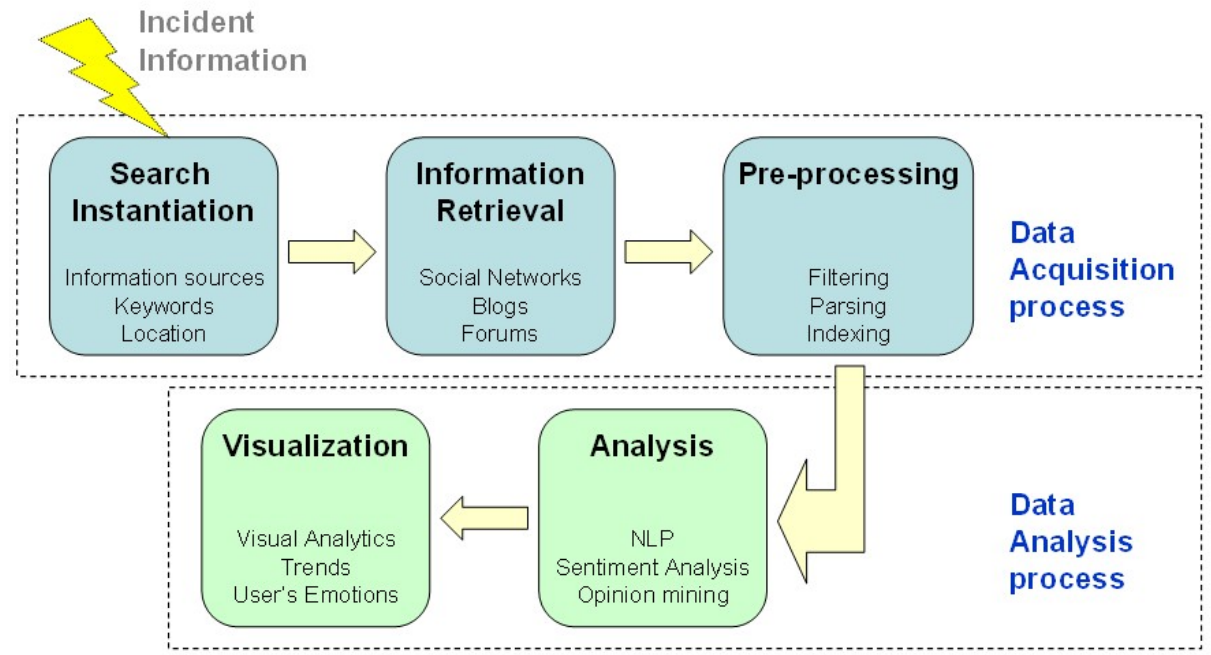


Figure 3-9: Overall view of the Screening of New Media (SNM) components

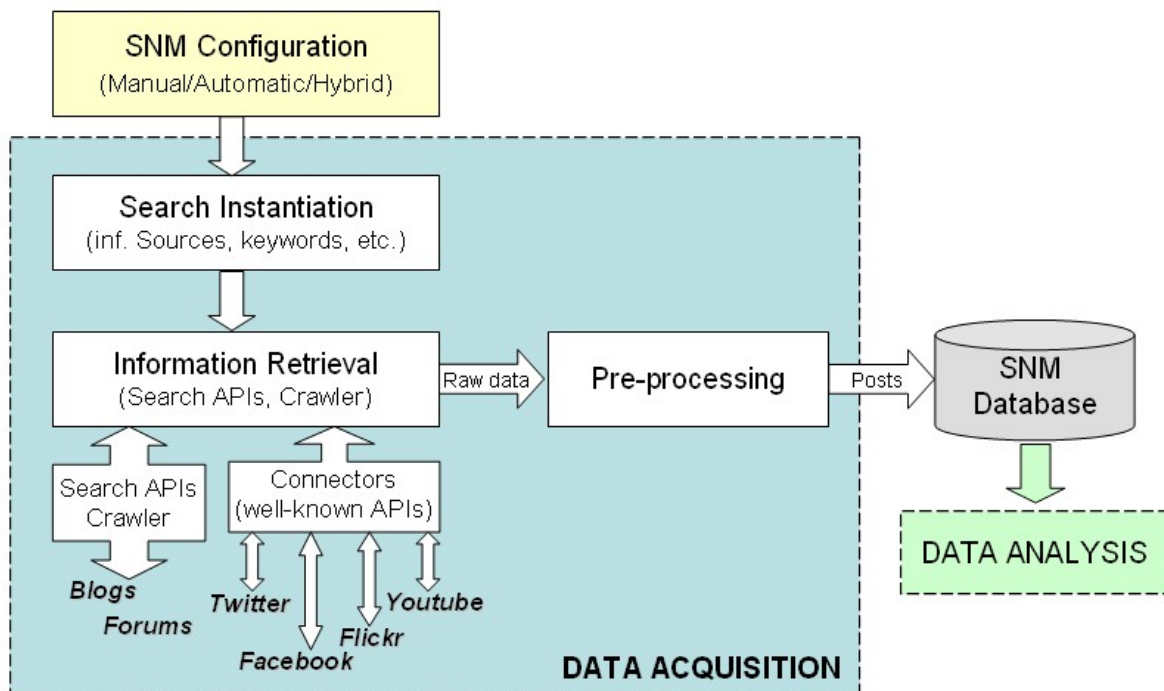


Figure 3-10: Design of SNM data acquisition module



### 3.4.4 The A4A Communications Paradigm

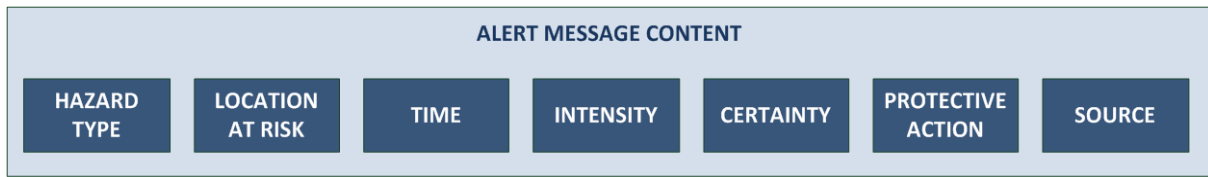


Figure 3-11: Alert message content abstraction

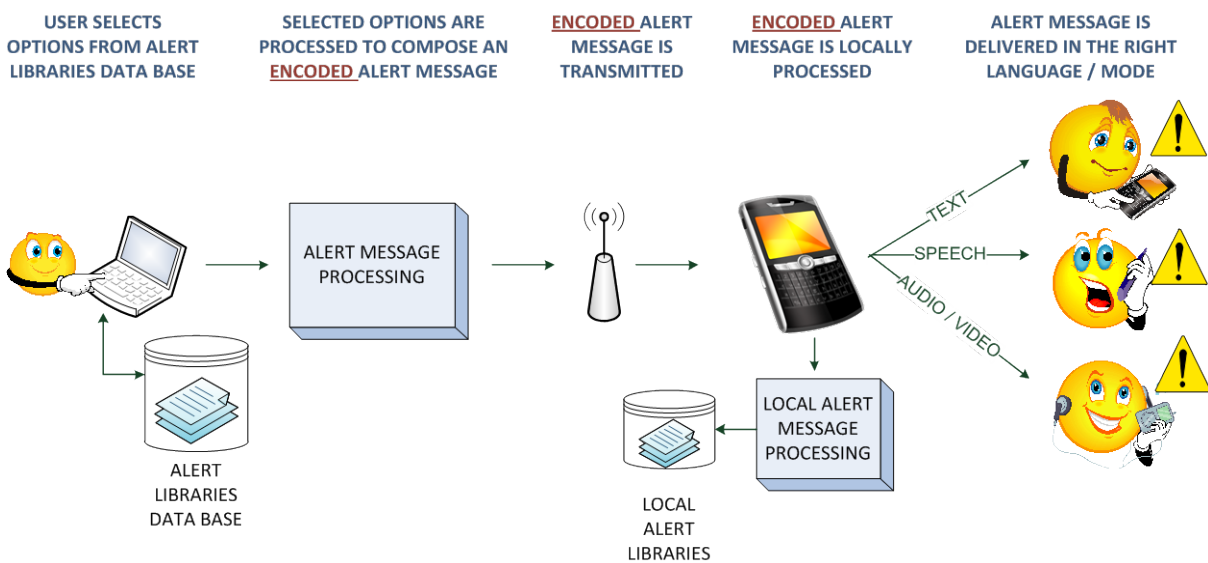


Figure 3-12: Using alert message libraries with client-based applications.

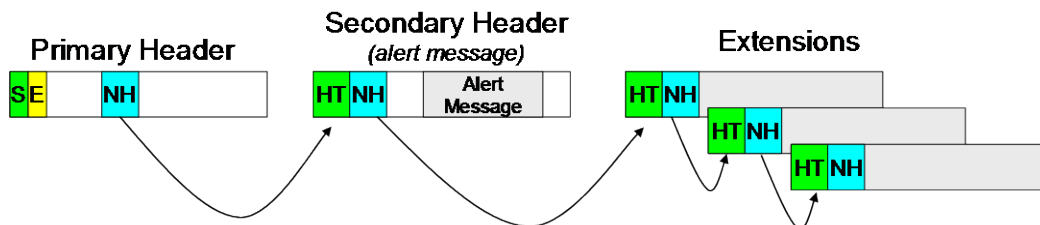


Figure 3-13: A4A protocol extension headers concept

### 3.4.5 The A4A Communications System

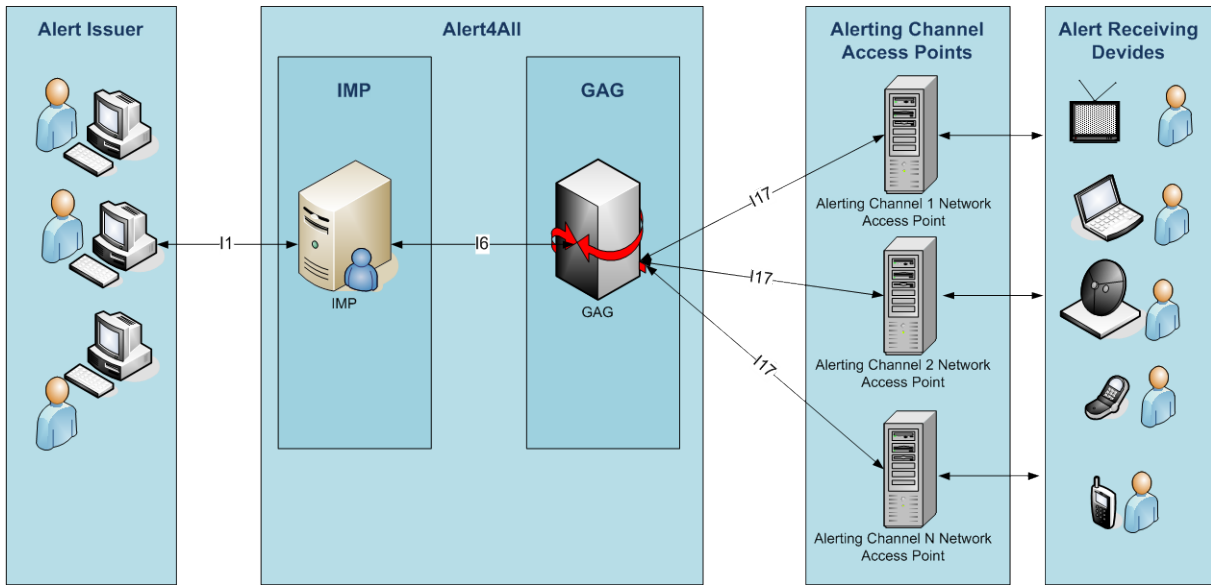


Figure 3-14: Communications system elements

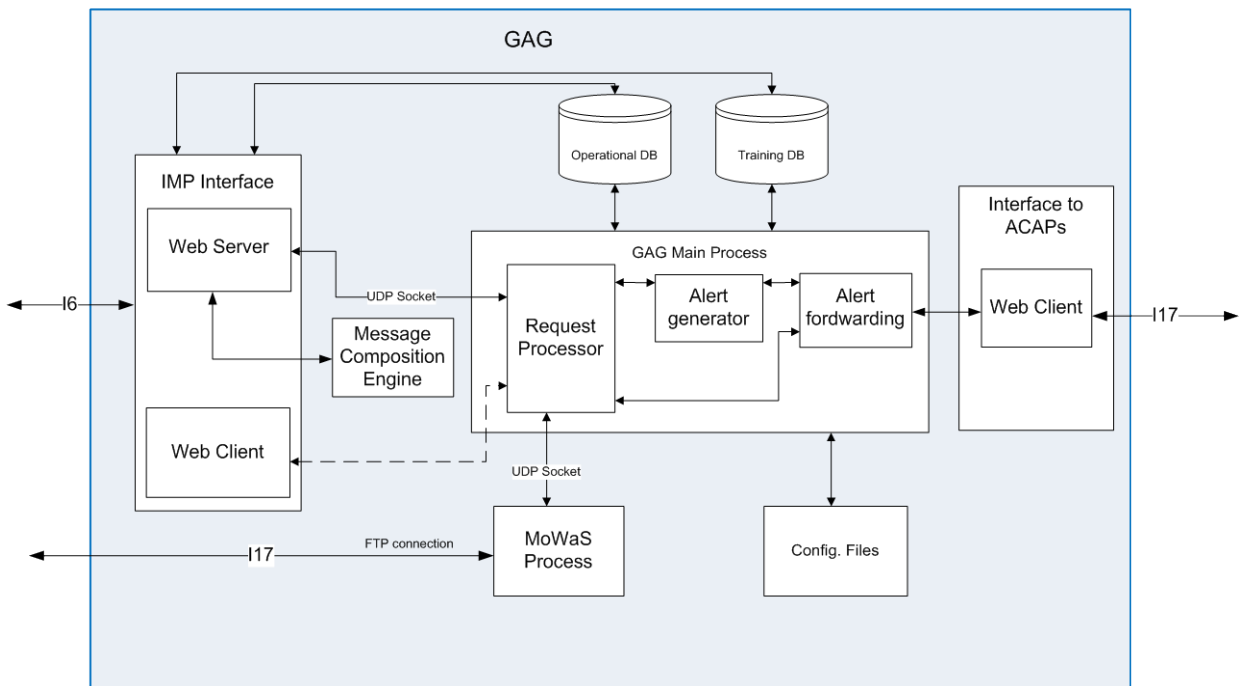


Figure 3-15: Global Alerting Gateway (GAG) architecture

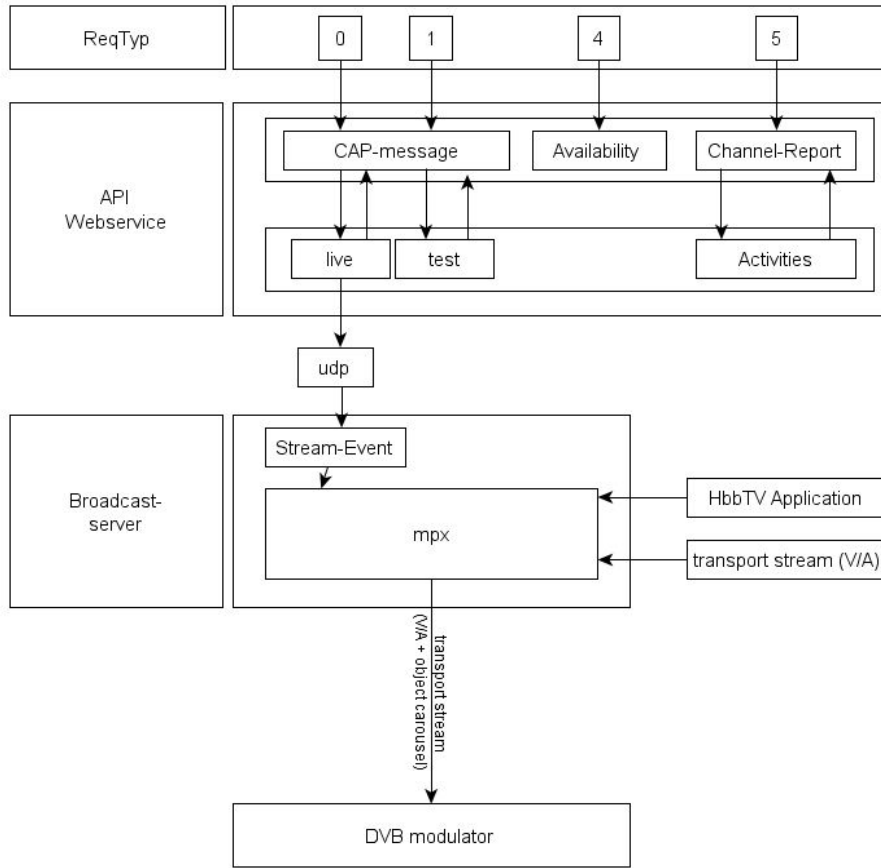


Figure 3-16: Block diagram of Broadcast handling of messages for HbbTV solution

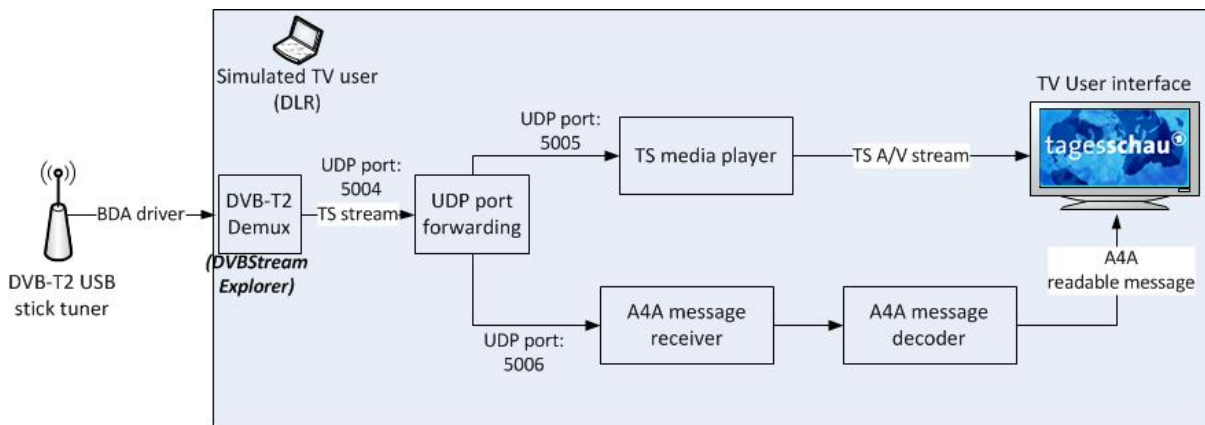


Figure 3-17: DVB-T2 receiver implementation diagram

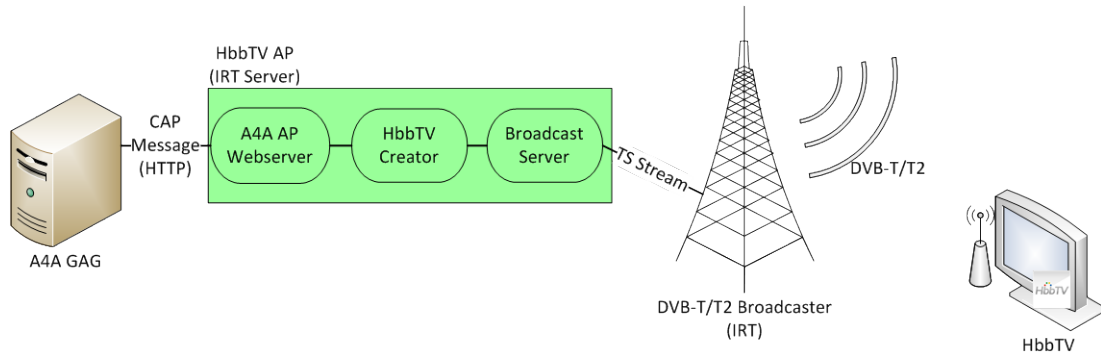


Figure 3-18: System architecture for alert delivery using HbbTV over terrestrial TV

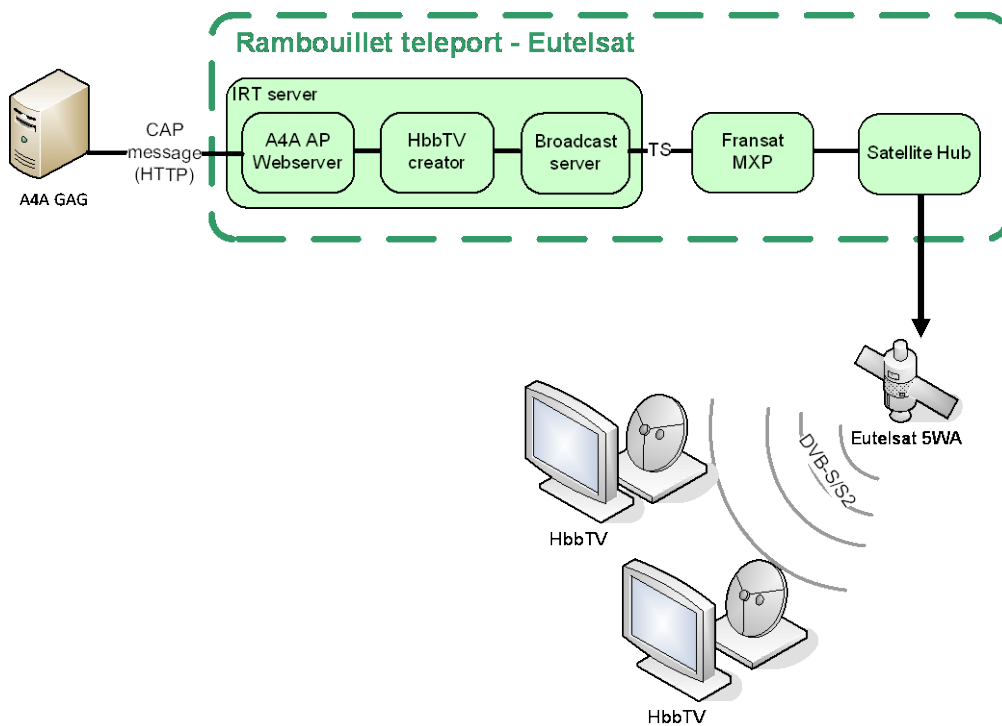


Figure 3-19: System architecture for alert delivery using HbbTV over satellite TV

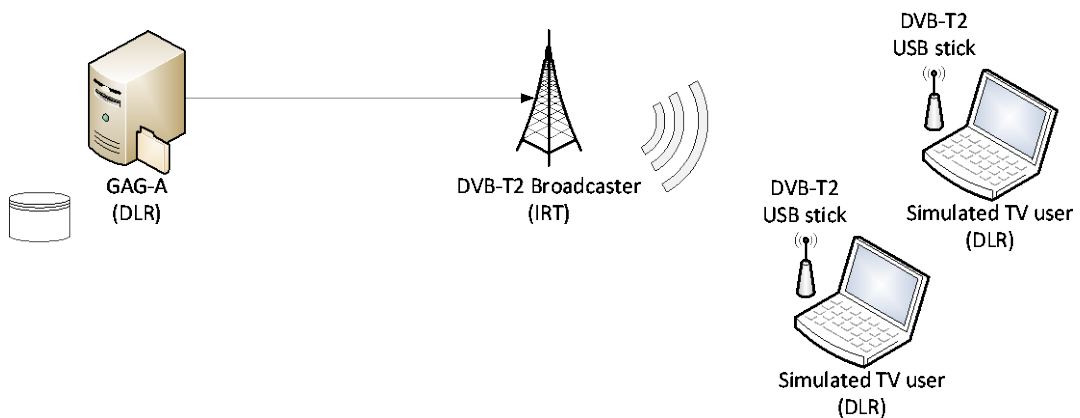


Figure 3-20: System architecture for alert delivery using enhanced DVB-T2 receiver

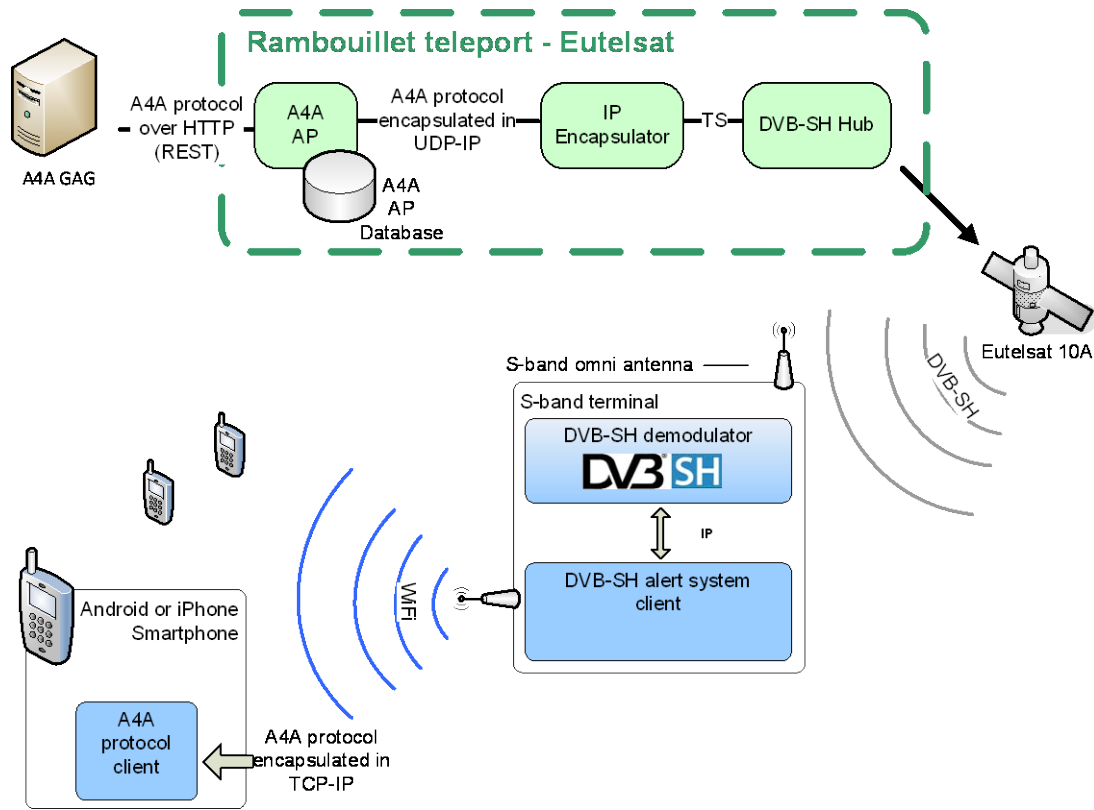


Figure 3-21: DVB-SH broadcast to portable devices architecture

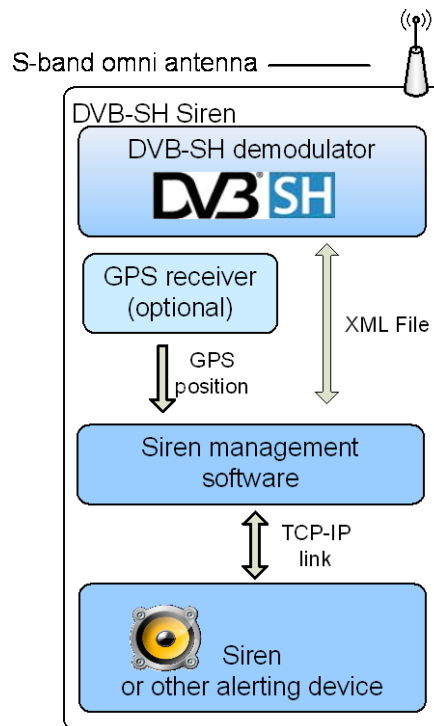


Figure 3-22: DVB-SH siren architecture

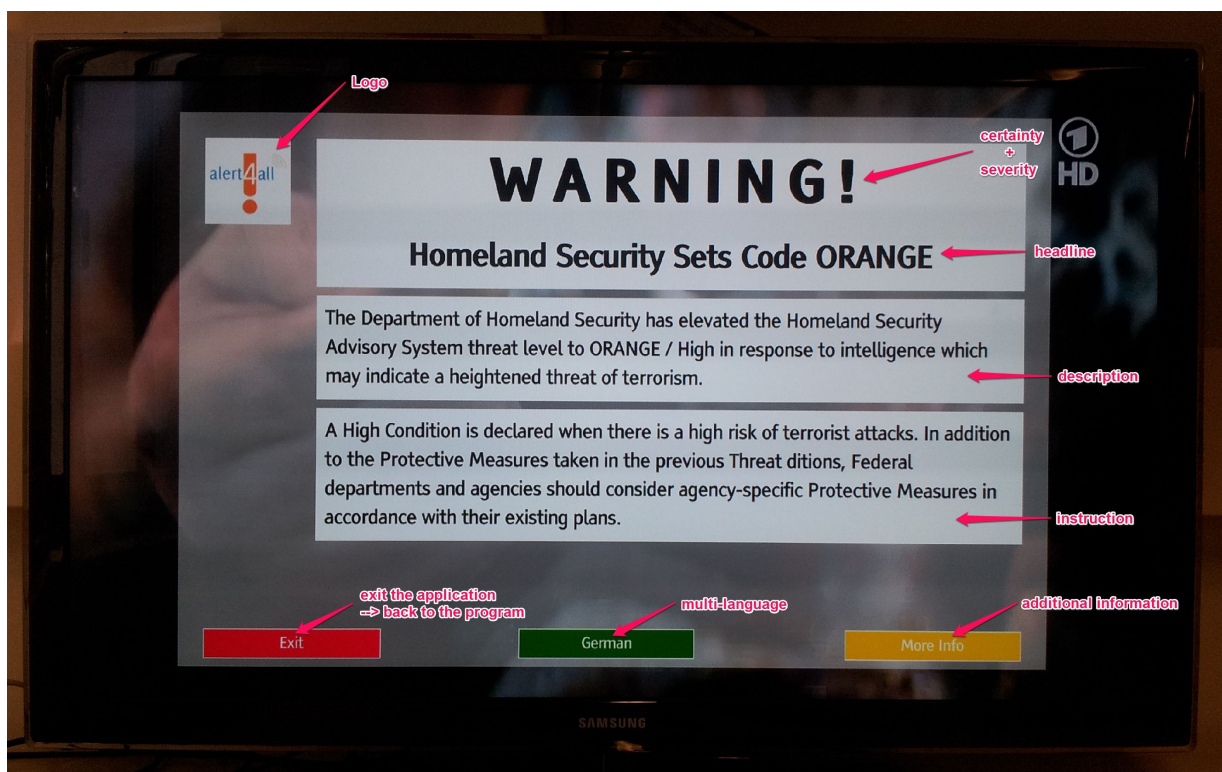


Figure 3-23: An alert displayed on common TV set delivered over HbbTV



Figure 3-24: DVB-T2 configuration dialog

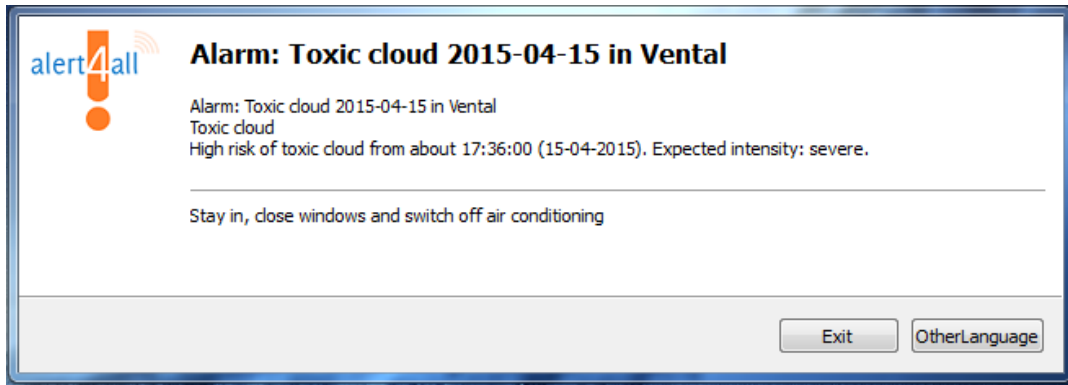


Figure 3-25: DVB-T2 receiver – alert message pop-up window



Figure 3-26: DVB-T2 receiver – alert message pop-up window with “Other Language” clicked

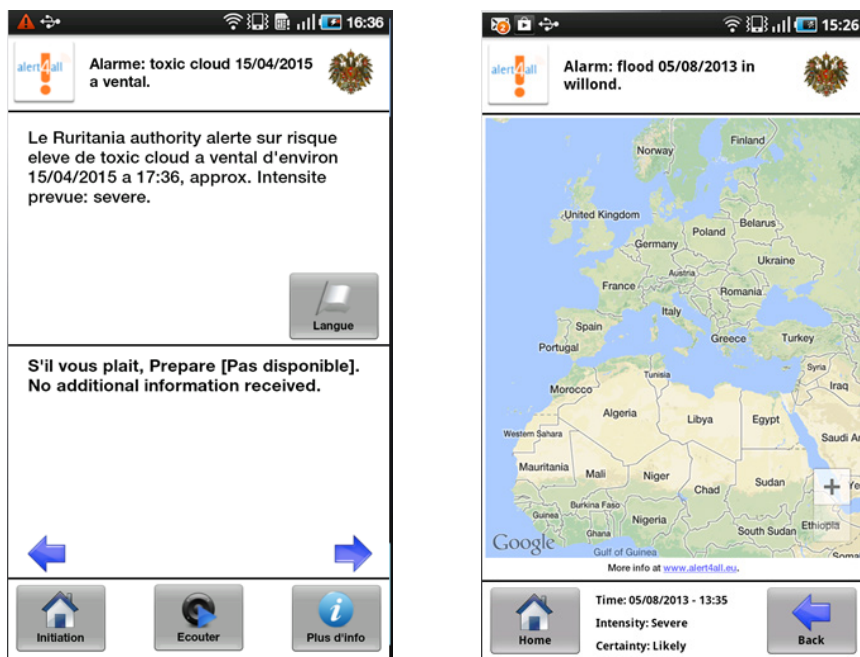


Figure 3-27: An alert displayed on a smartphone receiver



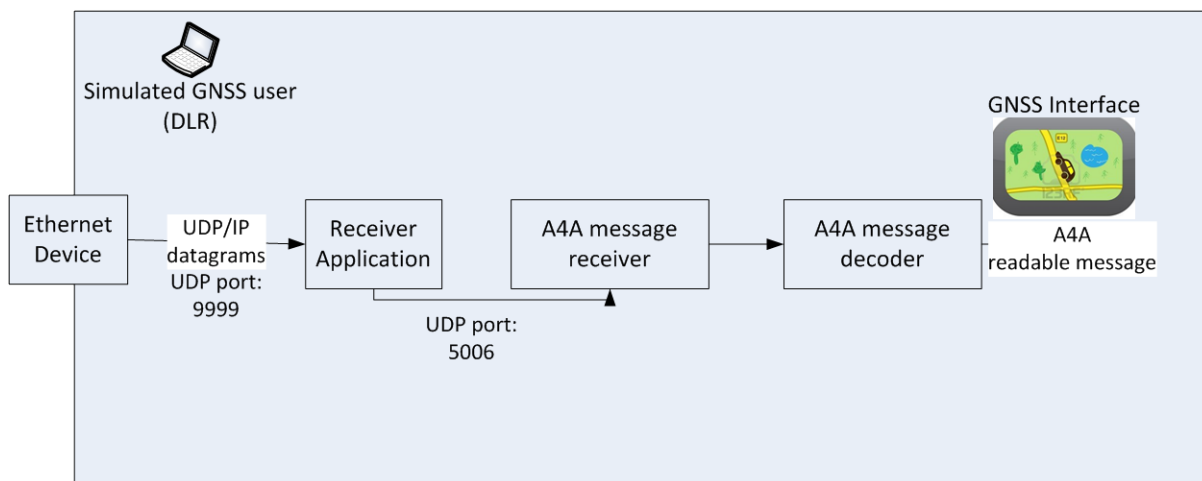


Figure 3-28: Emulated GNSS receiver architecture

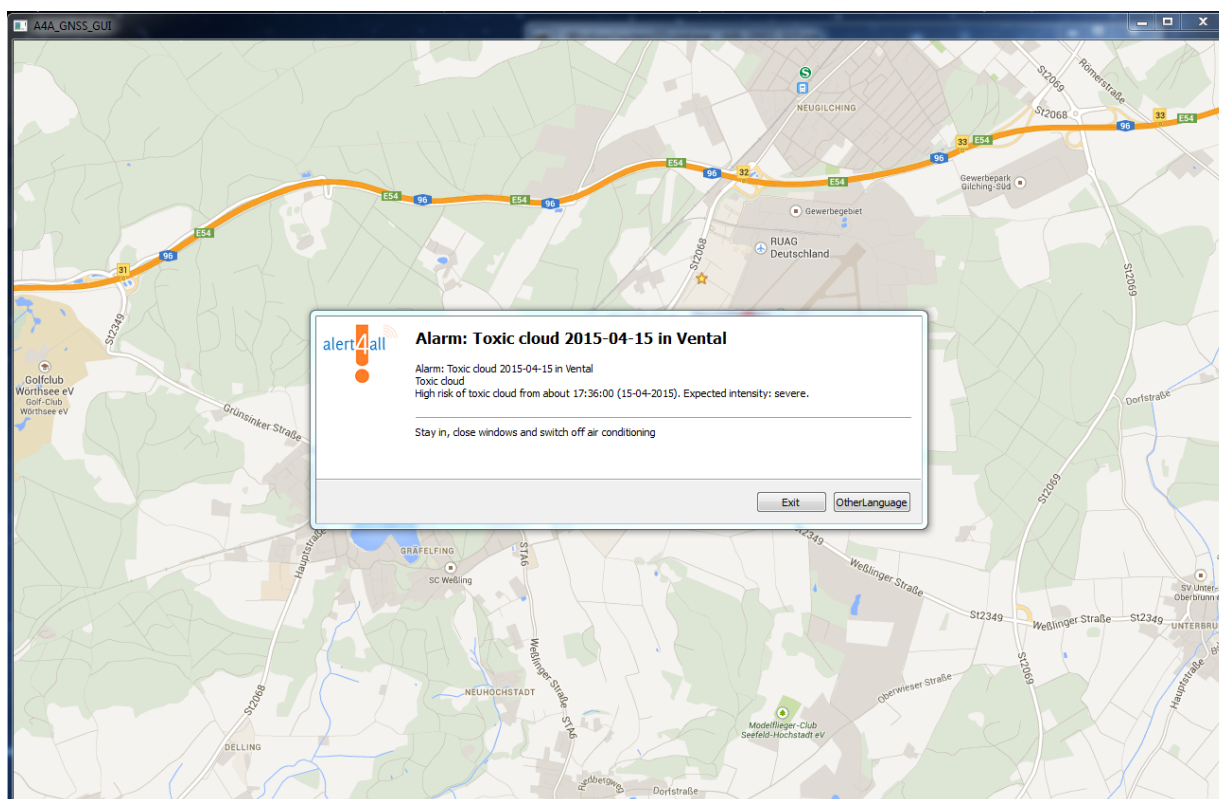


Figure 3-29: Emulated GNSS receiver displaying an alert message



### 3.4.6 Pictures of the Alert4All Proof-of-Concept Testbed

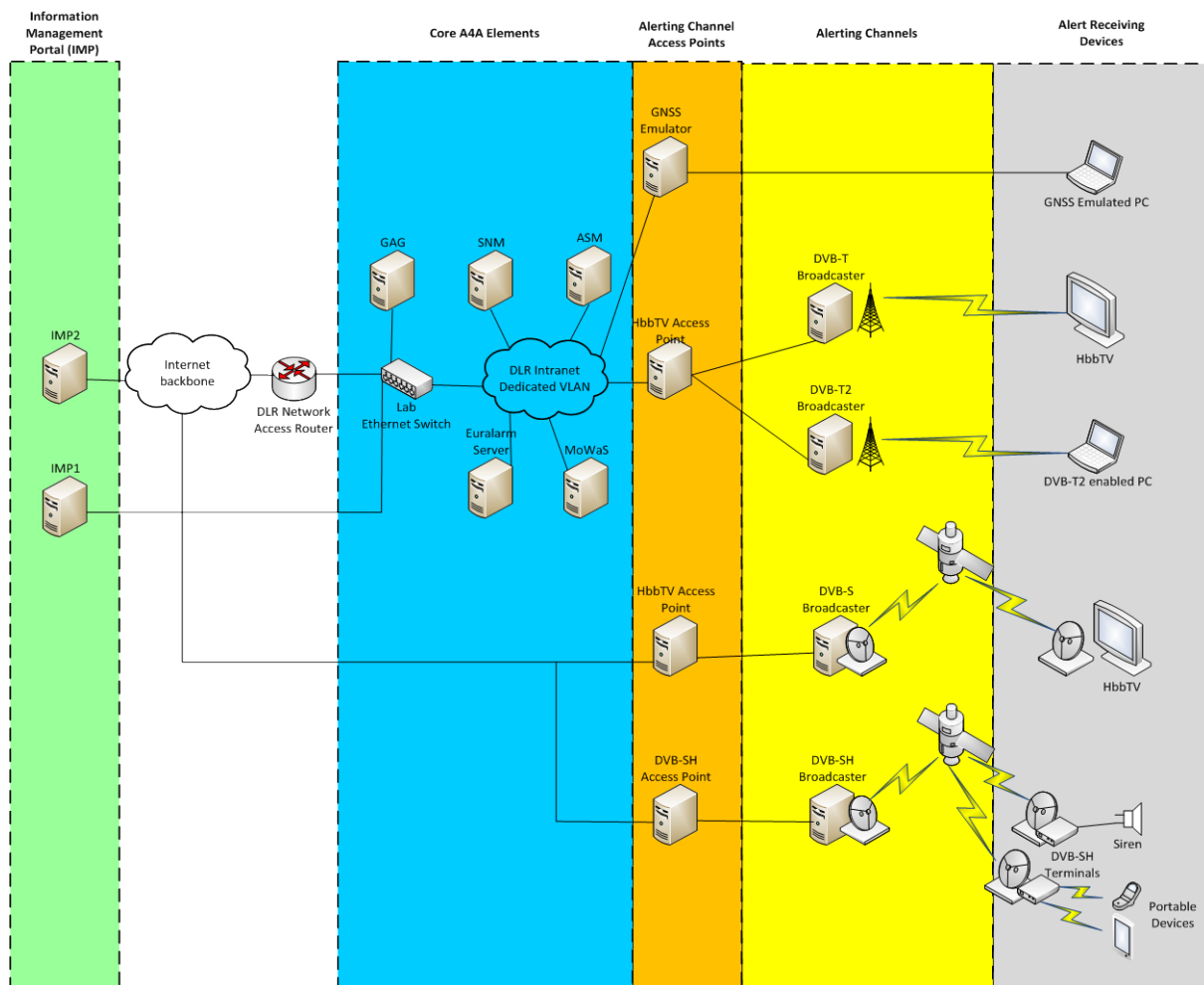


Figure 3-30: Testbed architecture



Figure 3-31: A4A station



Figure 3-32: View of the IMP graphical user interface



Figure 3-33: View of the SNM graphical user interface

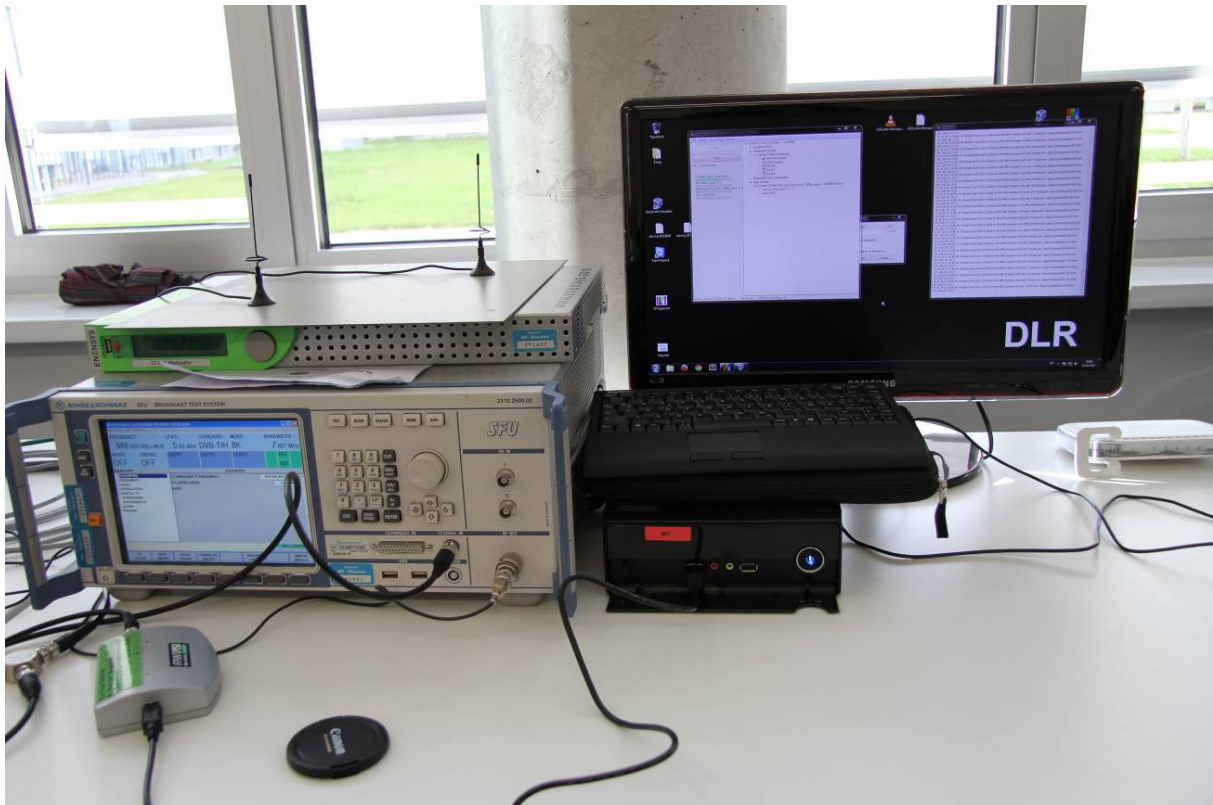


Figure 3-34: Access Point and multiplexer for TV broadcast systems



Figure 3-35: Alert delivered over HbbTV (terrestrial)





Figure 3-36: Alert delivered over HbbTV (terrestrial)



Figure 3-37: Alert delivered over enhanced DVB-T2 receiver



Figure 3-38: DVB-SH control module and terminal

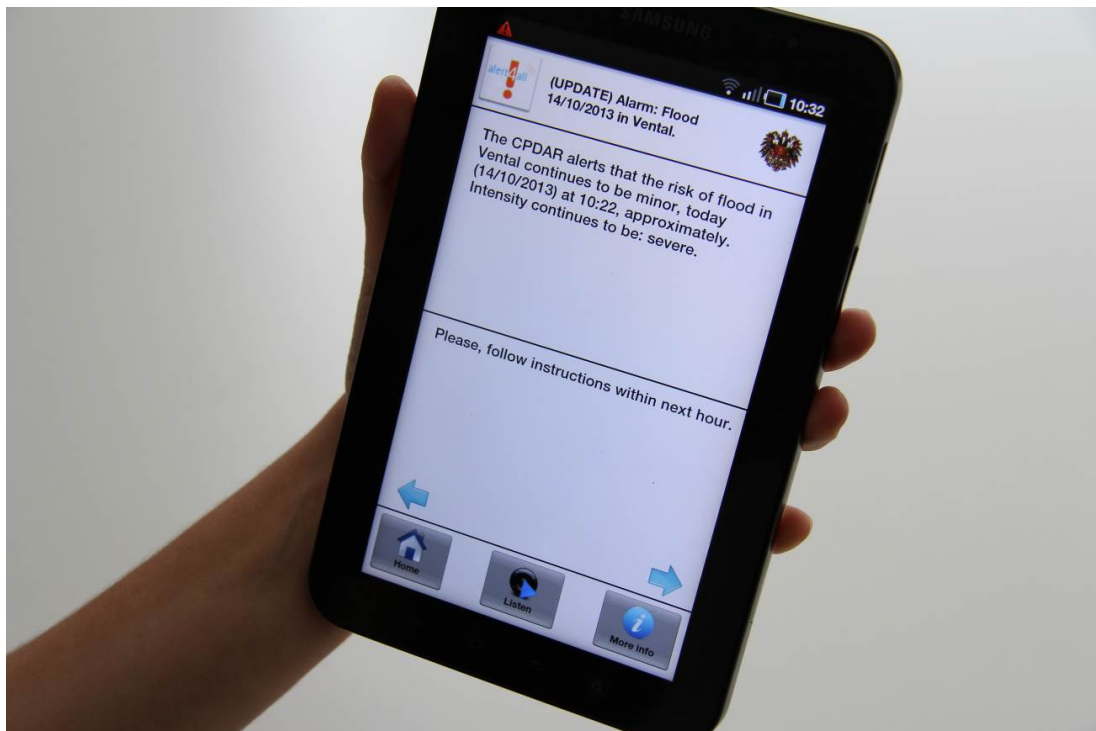


Figure 3-39: Alert delivery to portable devices connected to DVB-SH access point



Figure 3-40: DVB-SH to portable devices (sirens)

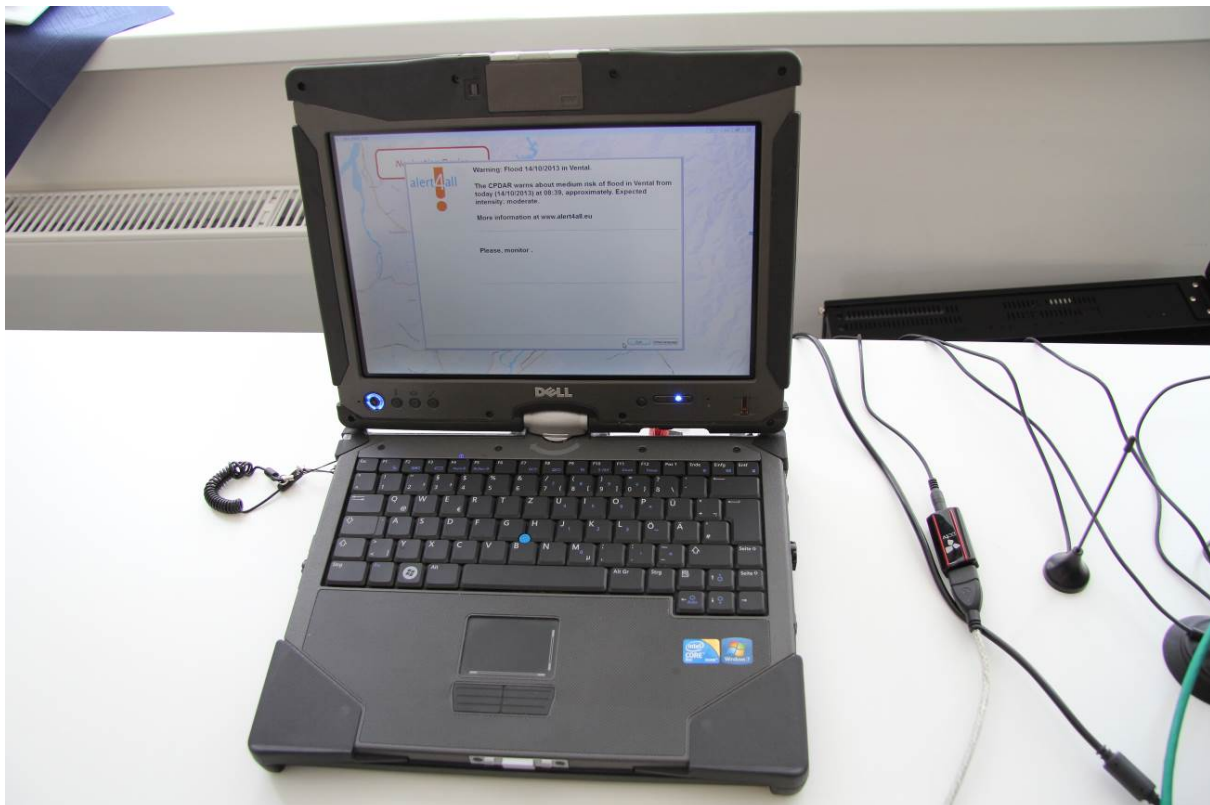


Figure 3-41: Emulated GNSS receiver displaying an alert message



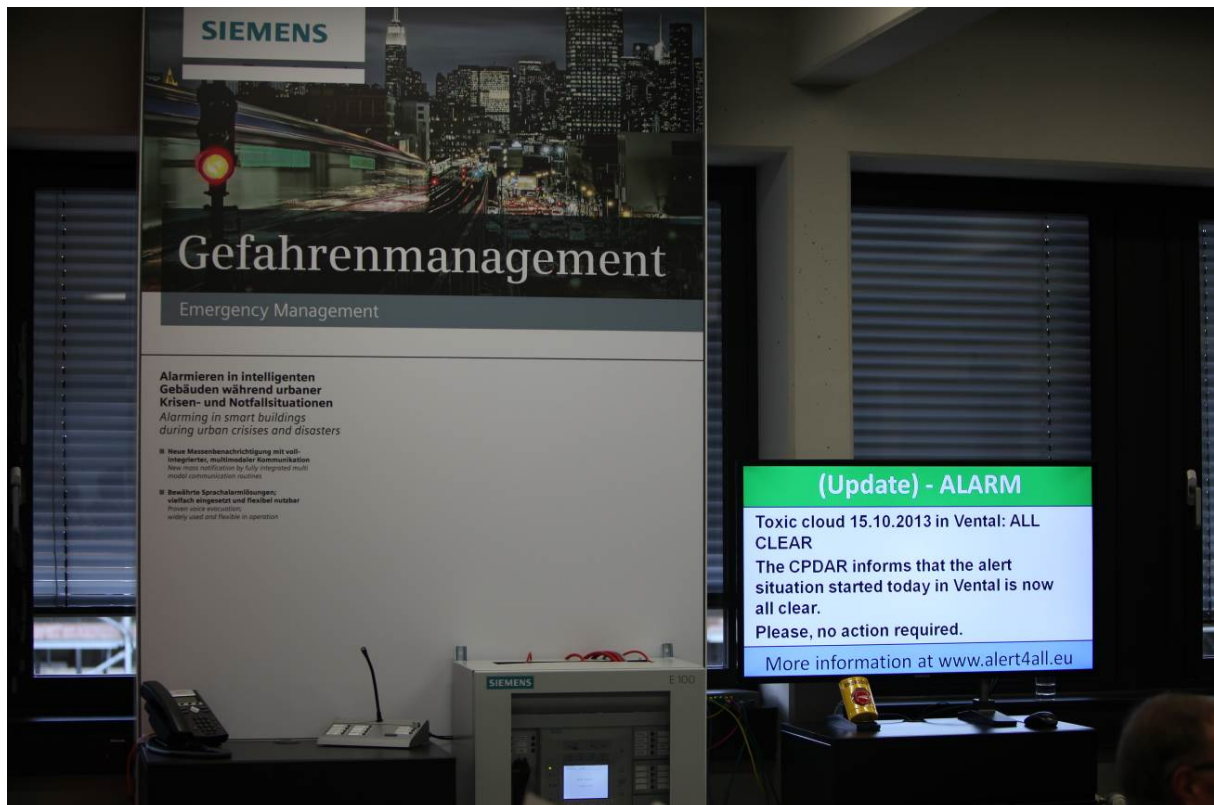


Figure 3-42: Euralarm mass notification system (siren, voice, and display) integrated to A4A



Figure 3-43: Euralarm voice notification system (voice, siren), integrated to A4A

### 3.4.7 The Institutional Framework

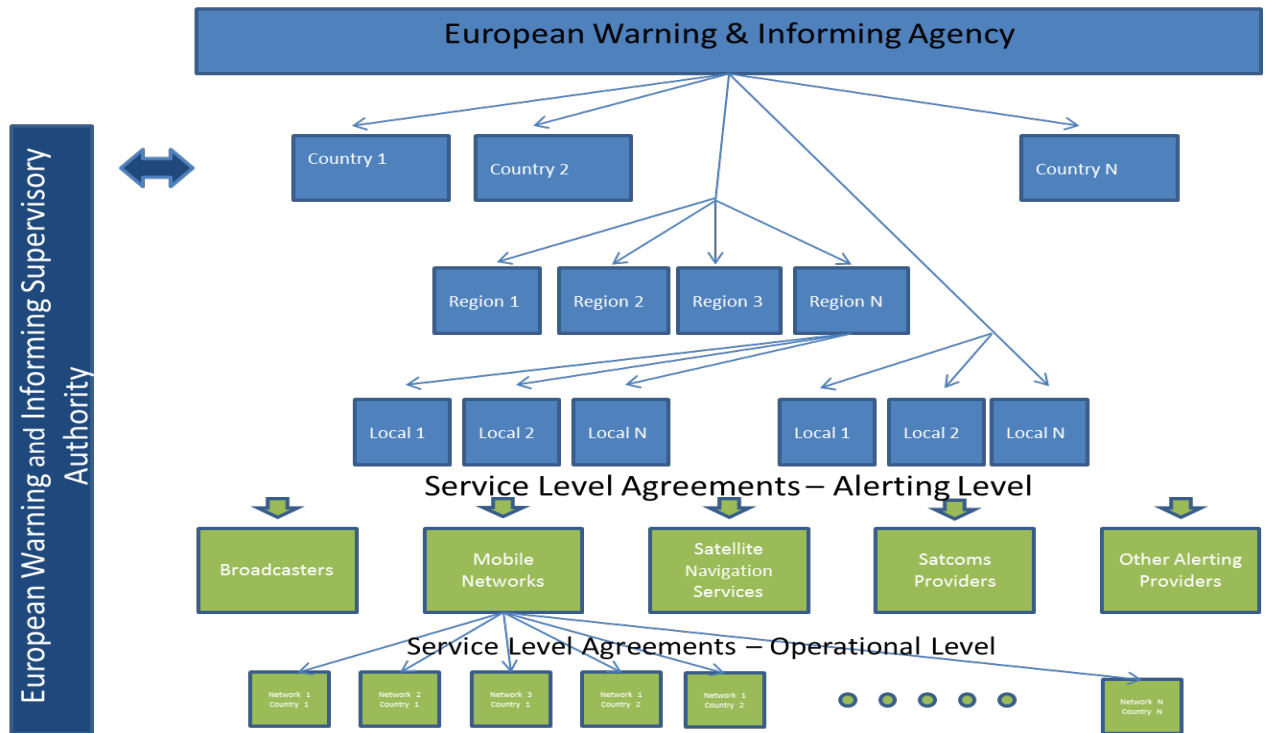


Figure 3-44: Institutional structure

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