

APSS

Aqsacom Public Safety Solution

Leveraging Data for Emergency Location & Public Warning

Product Information, January 2021

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INTRODUCTION

In an increasing demand for public security and safety against people rescue, natural disasters or terrorism acts, authorities and CSPs (Communications Service Providers) are expected to prevent, respond and handle such critical situations.

Mobile phones usage enables public authorities to leverage mobile network for Public Safety at both small and large scale. Emergency situation requires management of multi-technical aspects and several capabilities to:

- Locate people through any kind of network service (from 2G to 5G)
- Reach people through any kind of network service (from 2G to 5G)
- Broadcast messages in a fast, massive, and location targeted manner
- Instantly alert international roamers in different languages

All Europe Member States must operate a mobile-based alert capability, called “Reverse 112” project.

AQSACOM APSS offers a software solution enabling authorities and public safety agencies to deal with people emergency location and/or with mass alerting via Location-based SMS or Cell Broadcast. By combining several mobile network technologies, AQSACOM provides authorities and public safety agencies with an effective emergency communication tool to increase population reach in critical situation.

In this document, we go through the main use cases and AQSACOM solution capabilities.

AQSACOM software solutions are designed to integrate seamlessly into any CSP environment, without affecting the network operations and performances.

PUBLIC SAFETY USE CASES

Four cases are defined under the main case Public Safety.

1. Search and Rescue Emergency Response

APSS provides the technological capability to support immediate action in order to rescue people from death or injury as a consequence of severe accidents or hazards.

The task of the search and rescue service is to increase the safety of life and limb for the population. The emergency services are involved with all types of action related to land, sea and air rescue operations.

2. Fire Protection

APSS can help avert material damage or limit the extent of damage in the event of accidents or hazards. The main purpose of the fire and rescue service is to protect lives, health and the environment against fire and explosion, accidents involving hazardous substances and hazardous goods, and other acute accidents.

3. Terrorist Acts

APSS provides authorities the capability to send live alerting messages following a terrorist attack, and help to clear that specific geographic area for better emergency & enforcement operations. The goal is to limit impact on population lives.

4. CBRNE Emergency Response

APSS provides the technology to support prevention and management of Chemical, Biological, Radiological, Nuclear or High-Yield Explosive attacks or threats. Chemical or biological incidents include the spread of hazardous substances that may cause damage to health or damage to the environment and material assets, into the air, water, foods or soil.

Accidents involving toxic or flammable gases may have significant impact on lives, health and the economy.

SOLUTION DESCRIPTION

APSS provide Communication Service Providers with a single platform to address regulatory requirements regarding Public Safety & Security.

2 software packages are available.

- **APSS Emergency Location System, for geo-location of persons in danger or missing**
- **APSS Public Warning System, for broadcasting of Location-Based messages**

Our solution is specifically designed for CSP networks providing distinct advantages:

- Collect, filter and process massive amounts of events from CSP's mobile networks
- Consolidate location data flows from various LBS/GMLC
- Highly secure data protection, ensuring confidentiality and integrity in system configuration, and delivery of data to relevant authorities
- Provides an extensive set of alarms, real time operational measurements and statistics
- Seamless integration with any CSP network environment

APSS is part of AQSA COM products family providing the following technical benefits:

- High reliability, scalability, and multi-vendor support
- A modular approach towards rapid customization and system configuration
- Rapid development and implementation of new interface

APSS SERVICES AND CAPABILITIES

	Emergency Location System	Public Warning System
<p>Real-time Positioning</p> <p>Allows an authorized service operator to</p> <ul style="list-style-type: none"> • start/stop real-time tracking of users set in a location case • view on predefined map and layers the locations of a user set in a location case 	<input checked="" type="checkbox"/>	
<p>Location History</p> <p>Allows an authorized service operator to</p> <ul style="list-style-type: none"> • query data retention system for the location history of users set in a location case • view on predefined base map the historical route of a user 	<input checked="" type="checkbox"/>	
<p>Public Warning</p> <p>Allows a Public Safety agency to launch and manage the broadcasting of an alerting message to any CSP served users located in a given geographical area.</p> <p>For a served inbound roamer, an extra message can be sent in the most common known language of the user. Per warning campaign, the alerting message broadcasting can rely on either location-based SMS or cell broadcast services.</p>		<input checked="" type="checkbox"/>
<p>User Management</p> <p>Allows an authorized CSP administrator to create, search, modify and delete organizations, user groups and users.</p>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<p>API Client Management</p> <p>Allows an authorized CSP administrator to create, search, modify and delete API clients</p>		<input checked="" type="checkbox"/>
<p>Location Case Management</p> <p>Allows an authorized CSP service administrator to create, search, modify and delete a location case</p>	<input checked="" type="checkbox"/>	

	Emergency Location System	Public Warning System
Alerting Campaign Management Allows an authorized CSP service operator or an authorized agency system to start, update and stop an alerting campaign.		<input checked="" type="checkbox"/>
Audit Allows an authorized external user to audit used services (location case, alerting campaign)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
User Authentication and Authorization Relying on a two-factor authentication method and user privileges	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
API Client Authentication & Authorization Relying on the secure and control framework	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Fault Management Applicative and non-applicative alarms via the platform GUI or sent to an NMS using SNMP traps	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Performance Management 3GPP Performances Management compliant statistics files are generated per measurement job. They propose system and service counters	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Logging <ul style="list-style-type: none"> System log – recording of actions done by the system Alarm log – recording of alarm events Activity log – recording of all actions done by service users (administrators & operators) and API clients Service log – recording of any operations executed related to a service Report log – recording of reports delivered to Agencies 	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

KEY BENEFITS



High Performance and Reliability

Our solution is design for scalability, massive data flows management and multi-vendor support. We have extended experience delivering software solutions to telecom operators worldwide.



Compliance

Our solution is built in accordance to international telecom standardization norms (ETSI, 3GPP and OMA). We have strong expertise in telecom legal obligations, delivering tailor-made solutions to satisfy specific local regulation.



Corporate Social Responsibility

We help our customers reach CSR goals by engaging and helping local communities and authorities to build capabilities for public safety & security.



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