GEMMA
Global emergency management system

Right information, right people, right time

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Atos
Right information, right people, right time

For Public Safety Answering Points (PSAPs) and Emergency Response Organizations (EROs), ensuring a timely reaction while providing an efficient response is critical to save lives.

Central and local governments are faced with three major emergency response challenges:

**Agility:** Ensure fast intervention using new technology (such as IoT, social media, and face recognition) and reduce costs.

**Coordination:** Enhance interoperability between multiple public safety organizations, and have a common operational picture.

**Information:** Process and share information in real time, securely manage a large amount of actionable data, and filter noise.

The GEMMA emergency management system fits the needs of public safety (112 / 9-1-1 PSAPs, police, emergency medical services, fire and rescue, crisis centers) and other incident-handling organizations (transports, energy and utilities, large events).

The GEMMA emergency management system helps improve cooperation between command and control centers and field personnel. It covers the entire emergency management lifecycle, from call handling and dispatching to first-responder intervention and event escalation.

GEMMA combines with other Atos solutions (unified communications, critical communications, intelligence, public warning…) into end-to-end systems that rely on Atos’ innovation and recognized strength as a service integrator.

**Atos ecosystem**
- Atos integrator (global and local delivery)
- Complementary Atos solutions

**Homogeneous user experience**
- Extensive use of standards
- Multi-platform, multi-system, multi-language

**Real-time information updates and sharing**
- Events (emergency calls, planning, etc.), resources (human, fleets, materials, facilities)

**Security**
- Encrypted communication
- Cyber security

**Quality**
- High precision and reliability (agile, precise location, etc.)
- Continuous service improvement (24/7 support up to level 3)
GEMMA features

**Call handling**
- Reception, distribution, filtering and validation of information
- What (classification)
- Where (location)
- Who (identification)
- Multi-channel and accessible intake:
  - Voice calls, enhanced voice communications
  - eCall, eSMS, emergency apps, alarm devices
  - Accessibility for deaf and hearing-impaired people
  - New channels: social media, IoT devices, video intelligence and more

**CAD (Computer Aided Dispatch)**
- SOP:
  - Workflow engine
  - Different types of actions: resource mobilization, communication
  - Checklist, scheduled actions
  - Automatic vehicle location
  - Victim management:
    - Linking resources to one or more victims
    - Victim situation, status tracking
  - Standard-based information exchange between emergency response organizations and public authorities
  - Interoperability with agency-specific systems (e.g., police systems)
- Ability to integrate IFDS multi-network dispatching (PMR, LTE) and recording

**API**
- The GEMMA platform includes three types of integration mechanisms:
- GSC (GEMMA Service Catalog) is a catalog of services for integration with external systems, based on EDXL-CAP for inter-agency interoperability.
- EAD (External Application Display) allows embedding a 3rd party web-based system in a GEMMA area prepared for this purpose.
- New: 3rd party plugin development

**GIS**
- OGC-compliant GIS-centric operations for event handling from the map
- Network and handset-based caller location
- Situational awareness with real-time event and resource location
- Internal, external and online map layers

**Analytics**
- BI and data exploitation, multiple report and dashboard views
- Descriptive and prescriptive analytics, including camera/video intelligence
- Ability to integrate predictive analytics, AI & ML

**Field communications**
- Mobile app for remote GEMMA CAD users and for 1st responders in the field
- Ability to integrate critical communications via LTE and MCPTT

**Resources and assets management**
- People, vehicles, materials, facilities
- Ability to integrate Crew assignment to vehicles, specific features for each function/role, roster management

**Crisis management**
- Escalation and collaboration,
- Common Operation Picture
- Public warning

**SUMMA 112**
- Servicio de Urgencias Médicas de Madrid
- Deployment, maintenance and evolution of GEMMA for call taking, dispatching, resource management, advanced victim management, urgent and non-urgent patient transport, supervision, administration and data exploitation.
- ESRI-based GIS component, IP telephony and voice recording, TETRA radio, AVL/GPS and data services.
- Backup center infrastructure is hosted in an Atos data center

**HAEFECA Project being deployed**
- Unified emergency call platform for Police and Fire Brigades in Paris and surrounding areas
- Deployment, maintenance and evolution of GEMMA for call taking, first level dispatching and information exchange, supervision, administration and data exploitation.
- Based on GEMMA for the main components and custom modules for interoperability.
- Integration and data exchange with ESRI-based GIS, Alcatel telephony and other data services.

**AXEGA - 112 Galicia**
- Axencia Galega de Emerxencias
- Multi-channel call taking, incident management, supervision, administration, GIS, reporting, interoperability with external agencies and backup.
- Integration of IP telephony & voice logging, accessible communications, mobile location, eCall, emergency apps, alerting system for taxis, data warehouse and BI, mass alerting...
- Data migration, process adaptation business continuity.

**GEMMA as a Service**
- Based on GEMMA for the main components and custom modules for interoperability.
- Integration and data exchange with ESRI-based GIS, Alcatel telephony and other data services.

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**Préfecture de police de Paris (PFAU)**
- Project being deployed

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About Atos

Atos is a global leader in digital transformation with over 110,000 employees in 73 countries and annual revenue of over €11 billion.

European number one in Cloud, Cybersecurity and High-Performance Computing, the Group provides end-to-end Orchestrated Hybrid Cloud, Big Data, Business Applications and Digital Workplace solutions. The group is the Worldwide Information Technology Partner for the Olympic & Paralympic Games and operates under the brands Atos, Atos Syntel, and Unify. Atos is a SE (Societas Europaea), listed on the CAC40 Paris stock index.

The purpose of Atos is to help design the future of the information technology space. Its expertise and services support the development of knowledge, education as well as multicultural and pluralistic approaches to research that contribute to scientific and technological excellence. Across the world, the group enables its customers, employees and collaborators, and members of societies at large to live, work and develop sustainably and confidently in the information technology space.

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