GEMMA
Global emergency management system

Right information, right people, right time

Atos

The right information, at the right time and to the right responders

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

Public authorities are faced with three major emergency response challenges:

Resilience: Human threats and natural disasters, as well as the global pandemic, place extra strain on authorities and responders – and on their systems. With high call volumes, as well as personnel and resourcing challenges, agencies need systems that always scale and flex to crises and high demand.

Coordination: Public safety depends on effective inter-agency collaboration – especially in rapidly developing situations. If PSAPs operate in silos or systems are

obsolete or not fit for purpose, precious time is lost – time that can make all the difference to the outcome.

Responsiveness: Getting to the right place with the right people and equipment is mission-critical – so accurate information must be transmitted for split-second decision-making along the chain of command. As situations develop, personnel need easy-to-use tools to communicate and stay updated.

The GEMMA emergency and crisis management system is part of the Atos Public Safety product portfolio covering

PSAP and field operations, and as such fits the needs of public safety and other incident-handling organizations like 112/911/999 PSAPs, emergency medical services, firefighters, police, civil protection, transports, major events and more.

As a natively multi-agency system, GEMMA helps improve cooperation between command & control centers and response personnel. It covers the entire emergency and crisis management lifecycle, from call handling and resource dispatching to first-responder intervention and event escalation when crisis arise.

As part of comprehensive solutions, GEMMA combines with other Atos products including unified and critical communications, recording systems, data analytics and intelligence systems 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 and configurable user experience
- Extensive use of standards
- Multi-platform, multi-system, multi-language
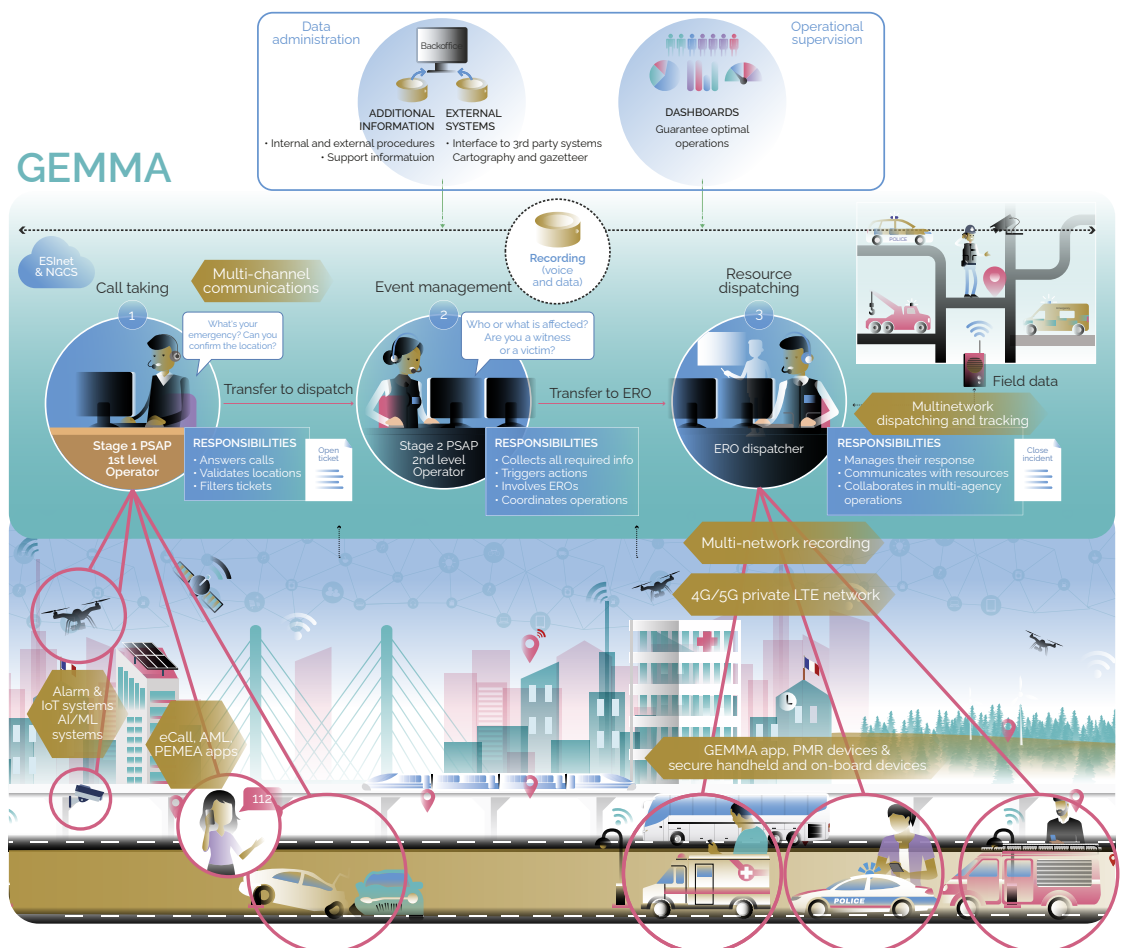
Real-time information updates and sharing
- Event, resource and victim data sharing
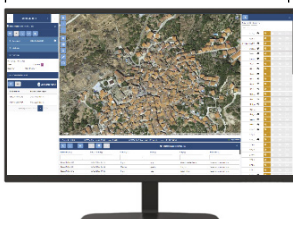- Collaboration request handling, interoperability with 3rd party systems

Security
- Encrypted communications
- Cybersecurity

Quality
- High precision and reliability,
- Log management and traceability
- Continuous service improvement (24/7 support up to level 3)

GEMMA features

Mapping & Situational Awareness | Main working areas | Monitoring area

Call handling
- Reception, distribution, filtering and validation of information:
  - What (classification)
  - Where (location)
  - Who (identification)
- Multi-channel and accessible intake:
  - Enhanced voice communications, near real time playback of recordings
  - Text and video calls, including eCall, SMS, emergency apps, alarm devices
  - Accessibility for deaf and hearing impaired people
  - New channels

CAD (Computer Aided Dispatch)
- Workflow engine and SOPs with different types of actions for resource mobilization, communication and more,
- Standard-based information exchange between emergency response organizations and public authorities. Interoperability with agency-specific systems
- Vehicle management, including location and tracking
- Victim management, even for mass casualty incidents and in connectivity with external patient management systems
- Voice (telephony and radio) and data (SMS, SDS, email) communications

Integrations and APIs
- GEMMA integrates communications platforms:
  - Telephony, through computer-telephony integration (CTI), and also provides a CTI Monitoring module (CTIM). WebRTC is embedded.
  - Radio, through 3rd party middleware.
- The GEMMA platform includes three additional types of integration mechanisms:
  - GSC (GEMMA Service Catalog) for integration with external systems, such as the inter-agency interoperability based on EDXL CAP. Other APIs include the recorder API, call location APIs, PEMEA API, AVL API and more.

  - EAD (External Application Display) to embed 3rd-party web-based systems in GEMMA
  - A shared data model (GEMMA Public)
- Ability to integrate multi-network dispatching (PMR, LTE)

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

Resources and assets management
- Management and display of people, vehicles, facilities, PoI
- Real-time tracking
- Management of crew assignment to vehicles and working schedules

Field communications
- Mobile app for remote GEMMA CAD users and for 1st responders in the field for Android and IoS smartphones and tablets
- Exchange of information via IP, radio and telephony

Analytics
- GEMMA incidental data can be exposed through interfaces to external BI and reporting tools
- Different reports and dashboards can be configured
- Ability to integrate predictive analytics, AI & ML

Crisis management
- Escalation / De-escalation and collaboration,
- Situational awareness and GIS-centric view
- Ability to integrate with Public Warning systems

GaaS (GEMMA as a Service) and PSaaS (Public Safety as a Service)
- Accessing GEMMA in the Cloud (public, private or hybrid)

112 Extremadura
- Multi-channel call taking, multi-agency incident management and supervision, GIS, reporting, interoperability with external agencies and systems, administration.
- Integration of IP telephony, TETRA radio & voice logging, accessible communications, advanced mobile location, eCall, emergency apps, AVL/GPS, BI, mass alerting
- Data migration, process adaptation, business continuity.

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, advanced mobile location, eCall, emergency apps, alerting system for taxis, data warehouse and BI, mass alerting
- Data migration, process adaptation, business continuity.

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 nonurgent 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

Préfecture de police de Paris
PFAU Project
- Unified emergency call platform for Police Fire Brigades and Hospitals 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 standard based custom modules for interoperability
- Integration and data exchange with ESRI- based GIS, Alcatel telephony, advanced caller location and other data services.

About Atos

Atos is a global leader in digital transformation with 111,000 employees and annual revenue of c. € 11 billion. European number one in cybersecurity, cloud and high performance computing, the Group provides tailored end-to-end solutions for all industries in 71 countries. A pioneer in decarbonization services and products, Atos is committed to a secure and decarbonized digital for its clients. Atos is an SE (Societas Europaea), listed on Euronext Paris and included in the CAC 40 ESG and Next 20 indexes.

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