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This document was created by the EENA staff in June 2022. It provides an overview of companies that are part of the EENA community, in an attempt to facilitate communication and knowledge between different members of EENA. This document is published for information purposes only. Under no circumstances may reliance be placed upon this document by any parties in compliance or otherwise with any applicable laws. Neither may reliance be placed upon this document in relation to the suitability or functionality of any of the described companies. Advice when relevant, may be sought as necessary.

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Meet the companies

Airbus	3	IES Solutions	104
Allianz Partners	5	IHM	104
AnthroPi	6	IMA	108
AQSACOM	8	Incendium	109
Atos	9	InnoSeven Technologies	111
Attentive Quadrant Sdn Bhd	15	Innovative	112
Avaya	17	Intersec	113
Bandwidth	19	Intrado	115
Beijing GS Technology Co., Ltd	21	lpkom	117
Beta 80 Group	23	IPS Consultants	119
BICS	25	Iskratel	121
Blackline Safety	26	Issured	123
Bosch Service Solutions	27	Japan MayDay Service	125
Buehler	28	King ICT	127
Carbyne	29	LIS (Leitstellen-Informations- Systeme GmbH)	129
Celltick – Utimaco	31	Locus Solutions	130
Cestel	33	Microsoft	132
Citizen Responders Foundation	34	Motorola Solutions	134
CityGIS	36	NUUK	136
Comtech Technologies	38	nWISE	137
CreaLog Software-Entwicklung und Beratung GmbH	40	one2many, an Everbridge company	138
Creativity Software	42	OnStar	141
CSAM Public Safety	47	Opencode Systems	143
DATUS	50	Oracle Communications	144
Deveryware	52	Orbita Consultancy	146
DS Information Technology	55	Pert Telecom Solutions Private Limited	147
ELi-Technology	61	PTOLEMUS Consulting Group	150
Enghouse Networks	63	Pulsiam	152
ER24	66	RapidSOS	153
Esri	68	Regola	154
eurofunk KAPPACHER GmbH	69	Saab AB	157
Everbridge	72	ShadowFocus	159
F24 AG	75	Sklls	160
Ford	77	Softil	162
Frequentis	79	Syntony GNSS	165
Garmin International Emergency Response Coordination Center (IERCC)		Systel	167
81		Techwan, an Everbridge company	169
Genasys	82	Telefónica	170
GeoComm	84	Telent	173
GINA Software s.r.o.	85	Telespazio France	174
Google	87	Unblur	176
GridGears	88	Vitkovice IT Solutions	177
Heartrunner Sweden AB	90	Xolaris Civil Security AB	179
Helmut Wittmann Consulting	92	Zachranka	181
Hexagon's Safety, Infrastructure & Geospatial division	94		
Huawei	99		
Hytera Communications Corporation Limited	102		



Airbus

Automatic Vehicle Location

Cyber Security Next Gen Comms

Radio Solutions Voice Comms

Airbus group is a global company with 130000 employees with locations and customers all over the world with strong European roots.

Airbus is operating in many different business areas with wide portfolio. These business areas include: commercial aircraft, helicopters, military aircraft, UAVs, imagery, observation and communication satellites, satellite launchers, border security,

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C4ISR defense solution, cybersecurity, critical communication solutions. The customer base is also wide, including commercial aviation, defence organizations, security and public safety organizations.

Public safety customer base is forming a community consisting of the following key user groups: police and law enforcement, fire and rescue, emergency medical services, customs, borderguard, coastguard and drug enforcement agencies.

Airbus portfolio for public safety is based on key components including:

- voice and messaging oriented critical communication solutions based on Tetra/Tetrapol technologies (networks, terminals, management systems, services), Mission Critical Communication solution over 4/5 G Commercial Networks (Tactilon Agnet, Secure MVNO), SatComms,
- a portfolio of situational awareness applications, AVL, Public Warning solutions, recording and dispatching solutions.

The full offering for public safety customers is constructed by combining public safety specific portfolio components and other Airbus assets like cyber security, Big data and intelligence application suite, Satellite imagery, VoIP Telephony solutions.

Pioneering the future in Critical Communications for Public Safety, Defense, Transport and utilities

With an installed base of 19 Nationwide Land Mobile Radio Networks, more than 30 networks for local authorities and defense forces, over 100 metro lines and 20 airports equipped, 2 million daily users in 80 countries, Airbus has been demonstrating its unique know how in Land Critical Radio-Communication Networks for almost 30 years, connecting field users and Emergency Command Centers via TETRA / TETRAPOL digital PMR solutions.

Building on this outstanding experience and resolutely turned towards the future, Airbus built a full set of solution and products (Agnet® family) and services to propose a nominal path to evolve from current 2G PMR Networks to Secured Mission Critical Communication over 4G/5G networks:

- Seamless Integration including an hybrid phase, where TETRAPOL/TETRA and Mission Critical Communications LTE/4G/5G are used together (Agnet 800, PMR Agnet Gateway, Tactilon Management),
- Mission Critical Communication Services and applications over 4G/5G: Agnet AS, Agnet Mobile, Agnet Dispatcher,
- Open Interfaces and support services to 3rd party to develop mobile or control room applications (Agnet Service API, SmarTWISP),
- Service Operator: as a telco integrator, Airbus builds and operates, a secure full MVNO solution including Mission Critical Communication services,
- A wide range of Mobile Terminals and accessories,
- A leading integrator to support customers in the migration phase, ensuring a deep integration of Business Critical applications over this new communication solution.



Allianz Partners

eCall

Emergency Apps

Emergency Call Management

Information Analytics

Third Party Services

Allianz Partners is the world's leading B2B2C specialist, delivering integrated solutions that combine insurance, assistance and technology.

Part of the Allianz Group https:// www.allianz.com/, Allianz Partners provides assistance services for automotive, travel, health and home. We are here to help 24 hours a day, Guillaume Lehallier

Global Head of Offering and Innovation - Roadside Assistance

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365 days a year. We are there both in emergencies and in everyday life, providing services including roadside assistance, home assistance, medical advice, repatriation, and mobile phone insurance.

Allianz Partners developed expertise products and support in insurance and mobility services along the entire automotive value chain and has earned the long-term trust of more than 40 major international automotive manufacturers. For over 70 years, customers around the world have trusted Allianz Partners to provide them with best-in-class all types of assistance services, including travel and health.

Throughout all assistance's services provided, the company drive a common mission and values, on a commitment to continuous innovation and the ability to meet our partners' global demands and a truly customer-centric approach.

Allianz Partners Key Figures 2020:

€5.3 Bn Total Revenues,

€150.6 M Operating Profit, Commercial Activity in 75 Countries,

19.429 employees worldwide,

58 million cases handled,

Working with over 50+ car brands in 30+ countries and with 30+ new mobility service providers in 25+ markets.



AnthroPi

Artificial Intelligence Disaster Management Emergency Call Management Information Analytics

Specialised Consultancy

By bringing together call takers skills, emergency physicians, cognitive psychologists, sound engineers and IT developers, we worked on emergency call detailed understanding to create the first telephone simulator: SimulPhone ©.

Already used by many call centers, SimulPhone © has proven reliability, validity and high level of practicality. Able to train call takers on similar calls, it provides real time answers to each one questioning. Coupled with a simulation evaluation, SimulPhone © rates the alert quality processing, verifies the objectives achievement and improves debriefing efficiency. During our learning session, we are able to train call takers to the required and expected skills through specific audio or cognitive workshops. We also produce a team effectiveness analysis that reflects the group's global and cognitive behavior.

Our solution allows the alert treatment evaluation, the achievement's control of set objectives and the communication in crisis situation increasing calls quality and security.

SimulCrise ©, like an evolution of SimulPhone ©, is a tool to train call center teams in crisis management. AnthroPi performed the first simulated crisis in an emergency call center in 2019, and allowed all levels to play their own decision-making role. Our team of experts is able to create scenarios on demand, in various fields, to train actors and test the operational response in order to constantly adapt to emerging risks.

We are proud to present you our two last developments:

Geminy© allows us to analyze the human factor in real time:

The app scans the phone conversations and our algorithm decomposes the voice parameters and their properties. Thus, the professional has emotional and cognitive feedback. Setting the different parameters allows real time, relevant and instantaneous information. Geminy © adapts to different fields, such as intelligence, judicial interrogations, call management (urgent or not), training, recruitment or negotiation.

AudioScoPi© also operates in the operational phase and will allow to produce an image of judicial eavesdropping of investigations, or surveillance. In this way, teams have the ability to listen, record, monitor, search, identify individuals, replay, and even import a photo in order to reproduce a visual environment through perceived sounds and noises. AudioscoPi© will allow you to obtain instant recognition of typical sounds (loading a weapon...), to differentiate sounds that are not in line with the environment (howls in a station hall...) as well.

Through AudioScoPi©, forensic and intelligence services, response units and special forces can have voice parameters and their properties broken down in an analysis of cognitive processes and related emotions.

Our solutions

Simulphone ©: Phone call simulator

Simulcrise@: Crisis simulator

AnthroScoPiO: Conversational and reporting tracker for each step of call processing or crisis management

Geminy©: Stress analysis and monitoring in verbal communication

AudioScoPi©: A tool to record sounds in an image. It will allow in the near future to recognize automatically specific sounds in a mass of data (noises, howls, conversations...).



AQSACOM

Emergency Apps

Interoperability Solutions

Public Warning

Telecommunications

Voice Comms

AQSACOM provides innovative solutions for Public Safety, leveraging mobile networks technologies, such as Geolocation & Data Retention to enhance emergency response capabilities. Use cases include geolocation of missing persons and mass population Alerting (via LB-SMS and Cell-Broadcast).



AQSACOM is a leader in Cyber Intelligence software solutions for communications service providers (CSPs) and government agencies. For over two decades, the company has been pioneering solutions to tackle Legal Obligations, including Lawful Intercept, Data Retention, Geolocation and Public Safety.

As a company with a unique focus on Cyber Intelligence, AQSACOM's mission is to greatly increase government agencies success, while providing cost-effective and operationally efficient solutions that meet their network transformation objectives.

Headquartered in France, with research and development teams in Paris, AQSACOM's customer-centric platforms are standards-based, following ETSI, 3GPP, CALEA as well as compliance for many national variants. Whether 5G, LTE, 2G/3G, VoLTE network, AQSACOM has extensive experience interoperating with a variety of network vendors including Ericsson, Cisco, Nokia, Oracle, Huawei, Sonus to name a few.

Most of AQSACOM's projects involve complete turnkey projects, where private and government organizations jointly participate in the requirements definition and solution design. Confidentiality covers any client operations, and project scope and capabilities.

AQSACOM's diverse customer portfolio includes clients from more than 35 countries spanning Europe, North America, Middle East, Asia, Australia, and Latin America.

Communication Service Provider Clients include Mobile Network Operators, Fixed Line Telephony Operators, Mobile Virtual Network Operators, Internet Service Providers, Satellite Communication Providers. Government clients include Police, Homeland Security, Intelligence Agencies, Military, Justice Departments and Ministries of Interior.

AQSACOM is committed to the leading Standards Institutes, contributing to the definition of technical specifications for Legal Obligations products and services.

As Full Members since 1999, our design team participate to the Technical Committees, Industry Working Groups, and Project Teams.



Atos

CAD

Control Room Integration

Emergency Call Routing

Emergency Call Management

Next Gen Comms

Atos is the global leader in secure and decarbonized digital with annual revenue of over € 11 billion and 110,000 employees serving a global client base in over 71 countries.

We help our clients evolve with a fully agile and remote workforce, migrate critical applications to the cloud so that they could operate at any time, and envision new ☑ Isabelle Delfosse
 Homeland Security Marketing and Portfolio Manager
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 ☑ atos.net/public-safety

cybersecurity threats. Atos is a co-founder of GAIA-X which aims to build a secure and transparent European data and cloud framework.

With more than 25 years of products, solutions and innovations with a clear strategy for Public Safety, Homeland Security, Healthcare, Defense, and Mission-Critical Communications, we are recognized as a trusted partner for public and private sector. Atos is a pioneer in innovative NG solutions with its globally recognized assets and experts. We have provided standardized solutions for "Next Generation Emergency Calling", NG112 in the EU and NG911 in the US, already live in California.

We bring to our customers the most extensive range of solutions to address their public safety challenges. We provide solutions for Next Generation Emergency Communication, starting with emergency call routing, emergency and crisis management, tactical communications, safe and smart cities, law enforcement, intelligence, anti-terrorism, border control, immigration and more.

From observation to action, Atos solutions make it possible to collect and analyze critical data, generate the right response and ensure situational awareness. Organizations such as emergency medical services, police, firefighting services, and civil protection can obtain the information they need for timely decision-making. Atos solutions are based on secure networks and communications.

We are among the leaders who can provide end-to-end Public Safety solutions based on our own intellectual property and services linked to all steps of the process, including planning, design, transformational steps, integration and finally operation with day 2 support.

Our goal is always to provide "standards-based" solutions to allow seamless integrations with existing customer systems for reduced cost and easier integration.

ESInet / Next Generation Core Services (NGCS)

• Atos Next Generation 112 (NG112) solutions allow you to receive calls through different channels (voice, video, Text, RTT, eCall, PEMEA, apps, IoT devices...) into your call routing network, to quickly allocate emergency callers to the right Public Safety Answering Point (PSAP). Atos offers the only carrier-grade VoIP session controller for both call handling and emergency services routing, aligned with next-generation emergency calling standards (NG112 / NG911). Powering the Emergency Services IP network (ESInet) domain is Atos' NGCS infrastructure, beginning with the OpenScape First Response Emergency Services Routing Proxy (ESRP), built from OpenScape Voice that supports ETSI/EMTEL and NENA standards for ESInet/NGCS. Capable of handling multi-media as well as voice calls, Atos' OpenScape First Response ESInet / NGCS solution is centered around the industry's only carrier-grade Emergency Services Routing Proxy capable of handling high call rates.

Complementing the **OpenScape First Response** Emergency Services Routing Proxy are the other Atosprovided Next-Generation Core Services Components:

- OpenScape First Response Border Control Function (BCF) provides security functions at the border of the Emergency Services IP Network (ESInet).
- OpenScape First Response Legacy PSAP Gateway (LPG) allows existing legacy PSAPs to receive emergency calls from a next-generation core services network.
- OpenScape First Response Media Service Bridge Function provides call transfer and conferencing capabilities for voice, video and text calls.
- OpenScape First Response Policy Store Server (PSS) supports the ESRPs Policy Routing Function by maintaining a central repository of policy routing rules.
- OpenScape First Response Next Generation Logging Service (NGLS) supports logging of call events
 in order to provide a traceable call history database. The log event database and internal reporting
 engine provide standard and ad-hoc reports and dashboard views.

Combined with Atos' third-party provided **Emergency Call Routing Function (ECRF)**, **Location Database (LDB)** and **Location Information Servers (LIS)**, your migration to a secure and managed ESInet/NGCS processing NG112 traffic is fully covered by Atos.

Emergency management

• **GEMMA** is the Atos product to be used in PSAPs for single and multi-agency operations, and also by emergency and crisis response teams in the field, fitting the needs of public safety organizations in multiple domains.

It covers the entire incident management lifecycle, from responding to emergency communications and launching standard operational procedures to perform actions and dispatch resources, to following-up first-responder interventions and event escalation. GEMMA is available both on-premises and in the Cloud and is natively prepared for multi-agency and multi-jurisdiction operations in which actionable information must be shared securely and in real-time between different stakeholders.

Atos' call handling, CAD and resource management components integrate seamlessly with our ESInet / NGCS and OpenScape PSAP Call Engine based on OpenScape Voice, as well as other own and third-party products, including the Lifelink Multinet products. GEMMA has been chosen by public safety organizations around the world, for nationwide operations such as 112 Romania, for regions such as Aragon, Galicia or Extremadura in Spain, or for major cities such as Madrid or Paris.

• Atos has successfully launched its **Multi Agency Incident Transfer (MAIT)** solution, connecting the UK's Emergency Services Network through a fast and secure messaging system - minimizing response times.

Secure and tactical communications

- Lifelink critical communication solutions respond to situations where communication is a vital issue. They ensure safety and relevant response to threats. Teams in the field can efficiently communicate and share data in real-time with a high level of resiliency and security. Lifelink consists of a complete portfolio covering all needs, from infrastructure to devices, including mission-critical applications, services and maintenance, with key core elements:
 - Lifelink Wireless: Full range of Professional radio network based on 4G LTE / 5G technologies including NB-IoT and LTE-M for sensors connectivity.
 - Legacy-to-LTE gateways to interconnect multiple types of networks such as TETRA to LTE.
 - Lifelink Hoox: ultra-secure smartphones with a high-level of data protection.
 - **Lifelink Hub**: multi-network module that allows you to automatically switch from one network to another without interruption, including Device-to-device features.
 - Mission-critical applications such as:

Lifelink Multinet Series that easily combine and record multiple network technologies from a unified C3 Command, Control and Communication platform.

- Lifelink Multinet Dispatcher combines all critical calls from different networks, such as TETRA, GSM-R, LTE, PBX, VHF, UHF or analog networks. They can be easily initiated in one step. Communication between the control center and field staff is always performed reliable and the required level of security is guaranteed.

- Lifelink Multinet Recorder can record all communications at different positions of the connection and throughout the lifecycle of the incident or event. It provides support for nearly all communication technologies and is based on IP architecture and standard COTS hardware. NG112 / NG911 communication types are supported including voice, data, pictures, RTT, video, eCall.

Lifelink MCX Connect: mission-critical application on a smartphone that brings a new mission critical set of services including MCPTT, MCData, MCVideo and real-time geolocation. Fully 3GPP compliant, this app successfully passed the ETSI interoperability Plugtests in October 2020. It enables integration with IoT data sources, such as drones and sensors, for example, to support safe city applications. It enables seamless migration to 5G, whether it is a private, public or hybrid network.

- **Lifelink Wireless**: Full range of Professional radio network based on 4G LTE / 5G technologies including NB-IoT and LTE-M for sensors connectivity.
- Legacy-to-LTE gateways to interconnect multiple types of networks such as TETRA to LTE.
- Lifelink Hoox: ultra-secure smartphones with a high-level of data protection.
- **Lifelink Hub**: multi-network module that allows you to automatically switch from one network to another without interruption, including Device-to-device features.

Public warning

• Atos population alerting can cover a city, a region or an entire country. It coordinates different types of alerting technologies such as cell broadcasting, location-based SMS, including sirens and social media, providing a unique system that can be run by any public safety organizations. We have deployed systems in Switzerland and Spain.

Cybersecurity

Atos provides unique end-to-end cybersecurity solutions with a data-centric and preemptive security approach to secure citizen data. We design, develop, manufacture, integrate software and hardware products, and bring a unique combination of expertise and experience in trusted digital identities, access management, data security, data confidentiality, threat detection and incident response.

Our offer is built around four core assets to accompany public safety organizations on their journey to thrive in the digital age of security, transparency, and trust:

- IDnomic/ cryptovision, , secure and trusted digital identities
- Evidian, identity and access management solutions
- Trustway, data security and confidentiality

- Managed Detection and Response (AI-Driven MDR) and our complete offer of Security managed services with Hybrid Cloud Security, CERT Services, Managed Security Operations, Vulnerability Management, Security Consulting and Compliance Services.
- Our comprehensive offer of Managed Security Services:
 - Managed Detection and Response (Al-Driven MDR): Threat hunting, monitoring, containment and incident response
 - Managed Security Services (MSS): Threat, vulnerability, identity and device management solutions
 - CERT Services: Data forensics, breach response, red teaming, and more
 - · Cloud security: Deploy and augment security controls. Monitor and respond to evolving threats
 - Security Consulting and Compliance: ISMS, compliance audits, security testing, zero trust, and more.

Safe cities: How to use Big Data, Edge computing and Artificial Intelligence

Our solutions are about leveraging smart cities data and enriching them with artificial intelligence and the Internet of Things to ensure the public safety of the future. This can include data sources such as CCTV, smart buildings, smart lighting, traffic monitoring, parking monitoring audio detection, IoT devices and personal wearable devices. The goal is to make this pre-analyzed data available to call takers to accelerate the decision process and better inform the PSAP.

• Atos Urban Data Platform is an innovative solution for cities that collects, stores and performs big data analytics from security and emergency information to provide intelligent incident response. By collecting and analyzing data from multiple open sources, this solution provides insights to trigger and manage a real-time response.

Predictive analytics optimize resource management, and the secure exchange of data between systems enhances inter-agency collaboration. For example, the platform can interface with GEMMA to keep the public informed of an incident, making it easier for emergency teams to operate.

- BullSequana Edge server provides AI inference & training capabilities at the edge.
- Atos Edge Computer Vision is a unique end-to-end computer vision platform providing pre-trained & customizable AI models powered by BullSequana server range and enriched by Atos computer vision experts through worldwide experts' labs.

All major products used in our public safety solutions were developed by and for Atos and remain Atos intellectual property. All products have been implemented based on both European and North American standards. Atos has the organizational and technical scope and expertise to perform the role as systems integrator in large national-scale public safety projects.

With new acquisitions of Ipstotek and DataSentics, Atos keeps enhancing its **AI/ML** and Computer Vision portfolio with new AI-intensive products and data science capabilities to help drive the future of Public Safety.

Atos is recognized as the Global Leader in Edge AI in ISG's Provider Lens™ 'Internet of Things – Solutions & Services' 2021 Quadrant Report.



Attentive Quadrant Sdn Bhd

Cloud Services Cyber Security

Disaster Management

Attentive Quadrant Sdn Bhd (AQSB) is a full fledge multi-discipline Information Technology company that is fast emerging IT company in Malaysia. We develop and customize software to Client's unique requirements. We are pioneering in-house software development that includes Uniqlog, Cognisense and Document Central Solution. Having a team with more than a decade long experience in Customer Software Development, we believe that we can realise our client's application



software solution needs. We work closely with our clients to understand their requirements in achieving their objectives, customizing solutions according to their expectations.

Key Products Highlights

- Cognisense; a Cloud-Based Intelligent Monitoring System which includes: Temperature, Humidity, Power loss detection, Current sensor measurement, Smoke detector, Water leak, Log and historical usage patterns on server room, generate notifications for early detection and alerts. Advanced analytics such as rate of change analysis, anomaly detection is being used to help provide insights and early warnings to the customer.
- Uniqlog; a logging management intelligence system that automatically consolidates data from multiple devices and manages them in a central repository, ie. using Hadoop Big Data ecosystem. Administrators provides the convenience of monitoring to prevent down time by early detection of critical areas.
- Terminal Access Controller Access-Control System Plus (TACACS+) system solution to manage security aspects of Authentication, Authorization and Accounting for terminal access control of network devices, typically routers in large networks for Telco companies, some which consists of up to 30,000 devices. Our solution can handle multiple types and brands of routers or any other devices required by our customer, as well as supporting IPV6 Addresses. All the configurations are easily managed through our customized web interface and systematic password flow and management. Multiple instances and a Centralized Control Management (CCM) Web Server provides users with High Availability as well as a single point of configuration, management, and reporting.

MyDoma; is an easy-to-use document management solution that allows businesses to control the
production, storage, management and distribution of electronic documents. MyDOMA transforms
your manual system by capturing information from paper documents and converting it into digital
formats. It is also cloud-based, granting you more flexibility compared to a local network.

Key Project Highlights

- Integrated Forecasting Gas Optimization (IGFO) Systems. The system is used to forecast gas production on 56 wells that is managed by Sarawak Gas
- Corporate Sector Equity Database Version 2 (CSED V2) Application System. The system involved complex calculation and analysis of Companies Shares, Net Asset Value and PAR Value using SSM Data, JPN Data and Bursa Data.
- AbleAce Raakin Integrated Islamic Murabahah System (ARIIMS). Developed a web based commodity murabahah system that includes commodity stocks such as Crude Palm Oil (CPO), Rubber, etc. Core functions of this system are to handle commodity transactions between Asset Suppliers, Customers (Banks, Trading Companies, etc) and Counter Party (Purchaser Agents). Reporting consists of Monthly Summary Report, Daily Stock In-Hand, Purchaser Request, Seller Offer, Purchaser Acceptance, Holding Certificate and Delivery Order. Currently the system is being used by 50 banks from 9 countries.
- Integrated Production and Forecasting Environment (IPFE) Migration Project. Migration of IPFE Engine from IBM PSeries AIX 4.3 platform to Red Hat Intel on VMware environment, redevelop C++ Engine and Libraries to increase performance as well as enable virtualization capabilities and reduce calculation time of scenario forecasting from 6 hours to less than 1 hour.
- As-Built Drawing Management System (ADAMS). Re-Engineering of ADAMS for PLUS Berhad. Web
 based As- Built Drawing Management System for Projek Lebuhraya Utara Selatan Berhad (PLUS) the
 main scope are Data migration from existing As built management system to the new database and to
 update data source Metadata by using OCR features Indexing Engine tuning.

16



Avaya

Drones

Emergency Call Routing

Multimedia Comms

Next Gen Comms

Voice Comms

Avaya is a global leader in communications systems for enterprises and organisations of any size.

Avaya and our partners are crafting comprehensive solutions to meet the increasingly complex multichannel communications and that are critical for successful implementations of Next Generation Markus Bornheim
Practice Lead Avaya International - Public Safety &

Emergency Services. Avaya's core contributions to Next Generation Emergency Services supporting distributed, consolidated and integrated Emergency Services and Public Safety environments are centred around our competencies in:

- Contact routing and treatment (Voice, Video, SMS, Text & IM, IoT, Social Media)
- Intelligent contact filtering and prioritization to avoid resource overload and enable adequate and efficient incident treatment
- Application integration into Command and Control room applications, rich interaction between media streams and application logic
- Drone video streaming integrations, supporting manual flight (Visual Line of Sight VLOS) as well as automated flight (Beyond Visual Line of Sight BVLOS).
- Single site on-premise implementations as well as multi-data centre private, public and hybrid cloud deployments, covering small regions up to national rollouts

As Governments and Public Safety Institutions build the network required for Next Generation Emergency Services, Avaya is ready to provide solutions today, across all required communication channels. Government institutions of all sizes can continue to depend on Avaya for state-of-the-art communications that improve efficiency, collaboration, and services to citizens.

Avaya understand that Next Generation Emergency Services is a desired end state that helps to solve many current challenges. We also see from recent customer interactions that many organisations see the challenge in getting to that end state without neglecting current landscapes. Avaya's platforms do support customers to migrate from where they stand today into the new world of public safety communications and interactions, including current hot topics like:

• ISDN-to-SIP migration

- Internet of Things, sensor and apps integration
- Infrastructure and services security
- Cloud-based services in public safety

Avaya's team of seasoned experts in public safety and emergency services is ready to get in touch with you to explore a new dimension in public safety communication, collaboration and interaction!



Bandwidth

Cloud Services

Emergency Call Routing

Emergency Call Management

Telecommunications

Voice Comms

Bandwidth is a Communications Provider as a Service (CPaaS) company offering a full suite of voice, messaging, and 911 services and APIs, all built atop the company's own secure, carrier-grade VoIP network. Businesses use Bandwidth's APIs to easily add calling, texting and 911 connectivity to software, applications, and internet-connected devices.



Bandwidth is proud to be the communications provider behind a diverse group of customers—from telecomfocused brands like Earthlink, RingCentral, and 8x8 to internet giants like Google and Microsoft's Skype for Business

Bandwidth's 911 solutions provide fast, reliable call routing and highly-reliable location management capabilities. Behind it all, Bandwidth's emergency services experts provide the hands-on support and subject-matter expertise that working with 911 technology demands.

E911 for VoIP and Unified Communications

Whether you're a carrier, VoIP Service Provider, or enterprise, Bandwidth offers simplified address provisioning and seamless call routing, ensuring public safety knows where your users are when you call 911 while helping you meet regulatory obligations. We are compatible with leading enterprise communications platforms from Asterisk, Sonus, Cisco, Avaya, Microsoft, Broadsoft, Mitel, Metaswitch, ShoreTel and much more.

E911 Dynamic Location Routing

Now you can protect your mobile and nomadic users as they move within your enterprise. E911 Dynamic Location Routing uses location gathered at the time of a 911 call to both route and arm public safety with real-time location information to support faster emergency response.

Emergency Calling API

Embedding emergency calling functionality directly into your application or IoT device means your users are never more than a button push away from getting the help they need, when and where they need it--and even when they're not near the location of the emergency.



Beijing GS Technology Co., Ltd

Big Data

CAD

Disaster Management

GIS

Information Analytics

Beijing Global Safety Technology Co., Ltd (also known as GSAFETY, stock code 300523) is a high-tech enterprise sole spin-off from Tsinghua University, which is the only achievement conversion company of the Public Safety Research Institute of Tsinghua University. In July 2016, the company was successfully listed on the Shenzhen Stock Exchange.



GSAFETY is an international public safety products and service provider,

focusing on government and emergency management departments, large enterprises to provide the monitoring platform system, emergency equipment, product sales and technical services for Fire Safety, Industry Safety, Emergency Management, City Safety Operation Monitoring, etc. Also providing the services for Early warning information release, Wisdom air-defence, Environmental safety, Campus safety, Social security and Safety culture. Providing top-level design, construction and operation service for urban public safety.

GSAFETY is committed to the progress and industrialization of public safety technology. In terms of key technology systems and equipment of public safety emergency system and urban safety, it has a complete independent intellectual property and a series of core technology, making over 500 software copyrights and patents, being rewarded the National Science and Technology Progress Award.

GSAFETY started to export key technologies in the field of emergency response to overseas in 2011, and established a subsidiary **Beijing GS Technology Co., Ltd.** in 2013 to focus on overseas business areas. Meanwhile **Beijing GS Technology Co., Ltd.** has been providing solutions and platform in more than 30 countries such as Latin America (Ecuador, Venezuela, Dominic Rep., Trinidad and Tobago, etc.), Africa (Angola, Algeria, etc.), Asia (Indonesia, Singapore, Brunei, Laos, Philippines, Macao of PRC, etc.) and has been providing a series of technical services covering expert consultation, top-level design, customized technology R&D and construction, system integration and deployment, technical support and expert training, etc. These projects significantly improved the local public safety situation and eco-nomic and social prospect.

Key technical solution: Computer Aided Command and Control System (GS-CACCS)

We have been engaged in Computer Aided Command and Control System (hereinafter referred to as "CACCS") for more than 15 years. We deployed National CACCS for Ecuador, Dominican Republic, Angola, Philippines, etc., significantly improving the responsiveness and performance of local emergency forces. After years of development, we build the whole life-time GS-CACCS product which can be easily deployed and smoothly upgraded.

GS-CACCS adopts component-based business units, coupled with flexible deployment features in different police scenarios. With basic functions of unified call-taking, visual command and dispatch, and intelligent decision support, GS-CACCS also integrates disaster response modules to handle major emergent events in a holistic manner, and supports fusion communication, multi-dimensional data analysis, situation awareness and analysis. This highly reliable, easy-to-use system can achieve high availability under extreme circumstances. Moreover, we always believe the services play the critical role for the customer. Based on the industrial best practice, we can provide professional tailor-made operation maintenance service, technical support service and systematic training solutions, furtherly ensuring smooth operation and system continuity.

Successful Case Introduction: ECU911 Project in Ecuador

In 2011, GSAFETY undertook the software development and technical integration design of the ECU911 project in Ecuador, helping Ecuador build 16 command centers at the national, regional, and local levels nationwide. The ECU911 system integrates professional resources from multiple departments and more than 87% of the response time can be controlled within 3 minutes, and more than half of the resources can reach the incident scene within 10 minutes.

The completion and operation of the ECU911 system has significantly improved the efficiency of emergency response and public safety in Ecuador. Since the establishment of various centers in 2012, the total number of police calls in Ecuador has increased at a rate of more than 10% per year, indicating that public awareness of the ECU911 system in Ecuador is gradually increasing. According to the statistical data in July 2016, the number of malicious crimes handled by ECU911 centers decreased by 23% compared to the same period in 2015. And Ecuador's 2019 Global Peace Index was raised to the 3rd in Latin America after the system deployment.



Beta 80 Group

CAD

Caller Location

eCall

Emergency Apps

Next Gen Comms

Beta 80 Group, with over 30 years of experience in Public Safety, is a global leader and reference for PSAPs and other Emergency Management authorities worldwide.



We serve 100 PSAPs and Control Rooms covering 112 Call taking,
EMS, Fire, 116117 non-emergency services and Coast Guard. Every day,
our solutions protect 67 million citizens in 3 continents, with a 100% customer retention rate.

Beta 80 is leading the Emergency Control Rooms transition to the next generation technology by empowering operators and agencies with the world's most advanced tools and solutions for their daily operations in a simple, innovative way.

Our products and services include:

Life 1st CAD

The first all in one, high performance and scalable Computer Aided Dispatch solution for next generation PSAPs, revolutionizing the entire Control Room industry, integrating social media and other new IP-based communication media. A platform designed on a Service-Oriented Architecture (SOA) with an innovative model of data collection and distribution, with multi-tenancy capabilities and cloud-oriented. Life 1st CAD comes with an embedded GIS software, mobile CAD applications and a communication & radio integration layer.

Next Generation 112 / 911

Beta 80 is among the first European companies approaching the new emergency communication methods. We have developed a full range of components for the NG112/911 ESInet platforms, based on the ETSI TS 103 479 standard and NENA i3 specifications, to deliver VoIP and multimedia communications to PSAPs.

Control 1st

Safety systems are almost always heterogeneous; produced and installed by different operators and at different times. Safeguarding the company's resources by controlling these tools is essential. However, because of their diversity in models and systems, control rooms require a special solution to integrate them in a single system. This is exactly what Beta 80 Control 1st does: a platform to unite all available and preexisting technologies to bring you the most efficient and cost-saving tool to manage your incidents.

Call geolocation services

Knowing the importance of call localization, Beta 80 features all currently available geolocation tools: **eCall** modern platform, **smartphone apps** for citizens compatible with **PEMEA** standard, **AML** server and **HTML-5** based geolocation services are all part of our platform.

System Integration

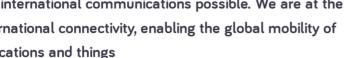
Beta 80 has a proven track record as a system integrator and consultant in European projects: a complex environment such as a PSAP requires several combined instruments; we led projects with dozens of stakeholders to provide an all-in-one solution that covered every customer need.



BICS

Big Data

BICS makes international communications possible. We are at the heart of international connectivity, enabling the global mobility of people, applications and things





We are connecting the world by creating reliable and secure mobile experiences anytime, anywhere.

BICS is a leading international communications enabler, one of the key global voice carriers and the leading provider of mobile data services worldwide.

Our solutions are essential for supporting the modern lifestyle of today's device-hungry consumer – from global mobile connectivity, seamless roaming experiences, fraud prevention and authentication, to global messaging and the Internet of Things.

Our headquarters is in Brussels and we have regional offices in Bern, Madrid, Dubai, New York, San Francisco and Singapore, a satellite office in Beijing and local representation in Accra, Miami, Montevideo, Nairobi and Toronto.

We have achieved a series of World's Firsts successes with the launch of the first LTE Roaming relation or the first VoLTE International call between Europe and Asia, to name a few.

With a diverse and multicultural team of about 600 employees, we continuously strive to provide customers with the highest level of quality, reliability and interoperability, enabling them to maximize their end-user value.

Blackline Safety

Caller Location

Cloud Services

Control Room Integration

Disaster Management

Blackline Safety is a global connected safety leader that helps to ensure every worker gets their job done and returns home safely each day. Blackline provides wearable safety technology, personal and area gas monitoring, cloud-connected software and data analytics to meet demanding safety challenges and increase the productivity of organizations with coverage in more



Technical Director, Safety Operations Center

☐ irabkin@blacklinesafety.com

S blacklinesafety.com

than 100 countries. Blackline Safety wearables provide a lifeline to tens of thousands of people, having reported over 161 billion data-points and initiated over five million emergency responses. Armed with cellular and satellite connectivity, we ensure that help is never too far away. For more information,

visit BlacklineSafety.com and connect with us on Facebook, Twitter, LinkedIn and Instagram.



Bosch Service Solutions

eCall Emergency Apps

Emergency Call Routing

Emergency Call Management

Third Party Services

Bosch Service Solutions is a leading global supplier of Business Process Outsourcing for complex business processes and services. Using the latest technology and the Internet of Things, the business unit develops integrated and innovative service solutions in the areas of Mobility, Monitoring, and Customer Experience. Around 10,000 associates at 27 locations support national and international



customers in more than 35 languages, primarily from the automotive, travel and transportation, and logistics sectors as well as information and communication technology. We are consistently expanding our IT and consulting expertise to offer holistic service solutions from a single source.

In 2012 we started the Bosch eCall Service in Europe which makes an important contribution to road safety, in line with Bosch's guiding principle of "Invented for life". Today, Bosch eCall Service is active in more than 50 countries allowing rescue operations to be carried out in an even more targeted and rapid manner thanks to multilingual capabilities and the effective way in which false alarms are resolved. We are continuously developing our partnerships with PSAPs to provide the best service to all parties involved in the rescue chain. Currently our solution supports around 20 million vehicles worldwide and has already been able to help many people.

We want to continue to grow and expand our position as a leading provider of innovative mobility and service solutions for greater safety and convenience on the roads. In 2022 we expect well over 25 million vehicles equipped with Bosch eCall Service.



Buehler

Project Management

Specialised Consultancy

We are engineering consultants specialised in communication and information systems as well as in telecommunication and mobile communication systems.

We are management consultants specialised in organisation and corporate development together with process optimisation and project management.



For complex critical infrastructure including public safety we are one of the few competence centres in Austria and Central Europe. Our range of services includes engineering consulting for electrical engineering, services in information technology as well as management consulting including business organisation.

We are an efficient team with extensive experience and high-level academic qualification. Profound and experienced understanding builds the basis of our expert opinions, analyses and studies, planning and implementation projects.

We are likeable, empathic, focussed and persistent. We stand for consulting for fact- based sustainable and economic implementations. We stand for engineering services with well understood conceptual and theoretical fundament.

We count small enterprises as well as large companies, governmental bodies, national and international service providers and private and public network operators for energy, telecommunications and mobile networks to our customers.

Innovation in technology and methodology is one of our core competences. We are actively taking part in innovation and research activities. We have close contact with the Universities of Technology in Vienna and in Graz at national level and participate internationally in projects in the COST-Framework (European Cooperation on Scientific and Technical Research).

From our office based in Mödling, just south of Vienna, we have been managing our national and international projects since our foundation in 1995.



Carbyne

Caller Location

Cloud Services

Emergency Call Management

Interoperability Solutions

Next Gen Comms

Carbyne provides cloud-based call management solutions to improve emergency collaboration and bridge the communication gaps between PSAPs, emergency callers and first responders.

Carbyne is the largest global emergency location services provider, delivering over 155M location data points per year, and already covering over 400M people worldwide. The company's solutions can be deployed

S carbyne911.com

remotely, and globally, within minutes and can triple PSAP communication channels by adding patented HD video to 9-1-1 and text to 9-1-1 capabilities.

As a pioneer in video and instant messaging to 9-1-1, Carbyne delivers over 1M live video minutes between callers and emergency call centers, and an unprecedented amount of secured and verified instant messages to 9-1-1.

The company also has nine patents giving Carbyne exclusive ownership of some of the most breakthrough and innovative technology in public safety.

Carbyne's platforms automate manual data collection processes while providing a complete call management system and incident data management capabilities that PSAPs have never had before.

The two primary offerings from Carbyne are APEX and c-Live Universe.

APEX, the cloud-based call management platform, was built to be the sole call management solution any call center would ever need. It was designed with the cutting-edge features of today and built to be updated and improved upon as technology advances. APEX provides PSAPs with next generation features like: real-time caller location, patented live video to 9-1-1, text to 9-1-1, instant chat, natural language processing, a real time Caller Aided Dispatch (CAD) API, and Z-axis location technology and more, all on one screen. It is a revolutionary call management platform that while offering dozens of next generation features, simplifies the call taking and dispatch processes.

APEX also provides next generation analytics and data management capabilities that PSAPs haven't had before. These new features can help PSAPs and first responders save more lives, enhance training programs,

and improve dispatch response accuracy. APEX is based on the AWS GovCloud and provides advanced insights to help PSAPs collaborate with one another -- reducing jurisdictional and communication issues -- and improving complex incident management on a unified platform, with a single flow of data management between agencies.

c-Live Universe dramatically upgrades the location and communication capabilities of a PSAP immediately upon installation. Universe works together with CAD software to provide real-time caller location, live HD video and instant chat with 9-1-1 capabilities for emergency call centers. The platform drastically improves time to dispatch and helps emergency telecommunicators focus on the emergency call by automating manual data collection.

Universe's real-time caller location capabilities can improve location accuracy from 1500 meters to within 5 meters and its verified instant chat capabilities allow emergency callers to discreetly communicate with 9-1-1 when making any noise could be dangerous. When PSAPs have Universe, they can allow emergency callers to share their cell phone camera view to show them the emergency instead of only describing it.

Carbyne's solutions provide 9-1-1 call centers with all the capabilities they need to save more lives, reduce time-to-dispatch and improve first responder safety. The next generation capabilities, from Carbyne's offerings, help emergency call centers and first responders communicate more fluidly and transform emergency response operations. Carbyne provides emergency call centers the technology, capabilities and insights they need to prepare for the emergencies of the future.



Celltick - Utimaco

Disaster Management

Emergency Apps

Next Gen Comms

Public Warning

Telecommunications

Celltick was recently acquired by Utimaco, a global provider of trusted Cybersecurity and Compliance solutions, to provide the most advanced and competitive Public Warning Systems.

Based in Aachen (Germany) and Campbell, CA (USA), UTIMACO develops on-premises and cloud-based hardware security modules, solutions for key management, data protection and identity management as well as data intelligence solutions for regulated critical infrastructures and Public Warning Systems LITIMACO is one of the world's leading me



and Public Warning Systems. UTIMACO is one of the world's leading manufacturers in its key market segments.

Together with Celltick, Utimaco is a global leader of Public Warning Systems and the world's largest cell broadcast-based products provider. Our systems deliver real-time alerts globally to hundreds of millions of users daily and have been adopted by several governments and over 80 mobile operators across 5 continents.

Our flagship MAGEN® (Mass Alert Geo Emergency Notifications) suite of products is especially designed for governments and public safety entities. The MAGEN® suite provides a wide range of delivery channels for the dissemination of time critical and life-saving warnings to citizens for all types of emergencies, e.g. severe weather warnings, floods, earthquakes, terror attacks and any imminent threat to the population. MAGEN® Command Post is the central alerts creation, control and management system for all MAGEN® delivery channels. It also features a state-of-the-art easy-to-use GUI and may be customized to accommodate every customer's operating procedures, including a complete automatic warnings dissemination.

The MAGEN® suite adapts to the specific needs of each customer via a variety of delivery channels, including cell broadcast, location-based SMS, customized native apps, unique SIM based applet, sirens, TV, radio, billboards, desktop alerts, IVR, email and others.

MAGEN® CBC enables alerts delivery within seconds to unlimited subscribers, in real-time and based on location. It supports tens of languages, and it is deployed across networks with thousands of RAN controllers and over multiple time zones. MAGEN® CBC is the only CBC in the market that supports a unique georedundancy active-active architecture practically ensuring zero downtime.

MAGEN® CBC is congruent with all types of networks – 5G, 4G, 3G and 2G supporting all RAN vendors including Ericsson, Nokia, Huawei, Cisco, Mavenir, Microsoft, Samsung, ZTE and all other established vendors. It can be deployed over bare metal or on a cloud/VM. MAGEN® CBC can be implemented either in centralized or distributed topologies and it complies with all industry standards including EU-alert, CMAS and CAP.

Celltick's customers include the Danish Armed Forces, Qatar's Ministry of Interior, IDF (Israel Defence Forces), government of India (AP), 3 in Denmark and Sweden, Vodafone-Idea, Airtel, BSNL, Telia, Bite, Tele2, America Movil, Globe Telecom, Taiwan Mobile, Taiwan Star, APT, MobiFone, Dialog, Mobitel, VNM and many others.

MAGEN® PWS main components are:

- MAGEN® Command Post (CBE)
- MAGEN® CBC
- MAGEN® LB-SMS
- MAGEN® Native iOS and Android apps
- MAGEN® SIM Alert
- MAGEN® Sirens
- MAGEN® TV
- MAGEN® Radio
- MAGEN® Billboards
- MAGEN® email
- MAGEN® Desktop
- MAGEN® IVR

Our Unique Advantages:

- Trusted cybersecurity and compliance solution provider
- A global leader for complete Public Warning Systems
- The world's largest cell broadcast provider
- We develop all in-house elements that are required for the overall system
- All products are equipped with a state-of-the-art and easy-to-use GUI
- A large footprint in all regions, with local experts
- Very fast time to market

500+ employees around the globe create innovative solutions and services to protect data, identities and communication networks with responsibility for global customers and citizens. Customers and partners in many different industries value the reliability and long-term investment security of UTIMACO's high-security products and solutions. Find out more on www.utimaco.com.



Cestel

eCall

Emergency Apps

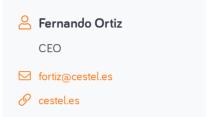
Multimedia Comms

Next Gen Comms

Recording Solutions

CENTRO ESPAÑOL DE SERVICIOS TELEMATICOS S.A (CESTEL) is a

full service manufacturer of ICCS - Integrated Communication Control System (radio & telephony), Recording Systems, Mobility Applications and Interactive Voice Response (IVR) systems for 112 Centers. These systems are empowered by our own advanced technology in voice biometry, AWM and NLASR and transcription features.



CESTEL is also a leader provider for eCall Systems and video interpretation service for deaf people (112 SVISUAL) allowing this collective to make and receive video calls to everyone including 112 Centers.

CESTEL has also developed 'DIFE' (advanced interaction service for emergency centers). DIFE is integrated with Deveryware-Ghale routing PEMEA system according to demanded services (multi language). Through DIFE, PSAPs can send useful information (environmental alerts, traffic restrictions, missing people alerts, etc.) to the configurable multiplatform APP and, at the same time, allows each citizen to send anonymized information back to PSAPs during the call (position, disabilities, age, gender, attention language preferred, allergies, blood type, etc.) something extremely valuable in emergency calls.

CESTEL's vision is to be a leader in mission critical customers, through the development of powerful interactive communication solutions to help institutions increase service and reduce operating costs. CESTEL has accomplished this through a talented and experienced staff, focused on exceeding customers' expectations for delivery, quality and professionalism. Furthermore, every application is developed using the latest proven technology or one that is developed within CESTEL's own hardware and software Research & Development labs.

CESTEL belongs to the CESTEL GROUP as well as NATURAL VOX (www.naturalvox.com), SYSCOM (www.syscom.es) and DTEC (www.dtec-bio.com), experts from these companies will join Cestel's tasks on this projects.



Citizen Responders Foundation

AED

Emergency Apps

Mapping

Specialised Consultancy

The Citizen Responders Foundation is a non-profit organization, created on the initiative of AEDMAP Lifesaving Solutions.

The main goals of the Citizen Responders Foundation are (i) citizen involvement in emergency situations, (ii) awareness and (iii) education through the following main axes:

- Provision of the Citizen Responder App to PSAP worldwide;
- Medical research support;
- Support education and training activities in the field of lifesaving.

➢ Dr Paul Dardel Volunteer CEO ☑ pdardel@bon-samaritain.org ♂ bon-samaritain.org/en

AED Registry management solution

The Citizen Responders Foundation provides a comprehensive AED mapping solution to health authorities, including:

- Cloud based database integrating AED specific needs (location, mapping, materiovigilance, recall management...)
- Artificial Intelligence proofing solutions
- Public Smart App to share AED locations with the public
- Country specific content

Several smart apps have already been deployed. Staying Alive, the flagship app available in 10 languages on iOS and Android lists over 160,000 AEDs. White labelled apps include:

- Save A Life: Canadian version developed in partnership with St John Ambulance
- Responders: Swiss version developed in partnership with Lausanne 144 ambulance service
- Reanim: Belgian version developed in partnership with the Belgian Heart League

Smart apps share the same AED database, thus building a worldwide network of AED mapping apps.

Besides AED locations, Staying Alive family apps provide extra content including CPR training material, training centers locations, emergency number auto-select and Citizen Responders management.

Citizen Responders

The Citizen Responders service is using state of the art technology to provide 24/7 volunteers locations services to PSAPs.

The system, run by PSAP operators, uses our smart apps to recruit, locate, alert and dispatch volunteers in case medical emergency nearby.

The service is fully customizable to fit customers specific requirements. Options include:

- Volunteer auto-trigger and if so number of dispatched volunteers
- Alert radius (default / manual)
- Alert reasons are fully customizable (cardiac arrest, unconsciousness, bleeding...)
- Volunteers selection auto-filter (age, qualification, gender...)
- Video call capability
- Responders smart dispatch based on volunteer's location / qualification. The system can send trained volunteers directly to the victim and untrained ones to get closest AEDs.
- Route display
- Data analysis tools

Moreover, the Citizen Responders service can be tightly integrated in PSAP dispatch software through open APIs.

In France the service is live in over 40 states (35 million citizen) since 2017, counts 80,000 volunteers and has been used over 3,500 times saving hundreds of lives.

Working in the field of AED mapping and Sudden Cardiac Arrest since 2011 the Citizen Responders Foundation is committed to provide best in class and fully customizable digital services to PSAP and Health authorities worldwide.



CityGIS

Automatic Vehicle Location

CAD

Disaster Management

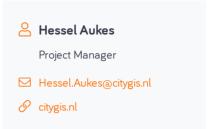


Public Warning

Custom fit 112 software

When every second counts

CityGIS provides sophisticated GIS software for 112 centers and its connected vehicles, creating a large overall 'common operational picture '. CityGIS systems have it all, from A to Z, from the incoming call at the Center to automatic navigation in vehicles, to transferring information, of the highest quality, designed for the mission critical 112 operations, and



backed up by many years of experience. Every innovation we pursue is based on our mission statement: "To provide the best geographical coordination & information systems where every second counts." The results of this ambition are found in our wide range of products. For example: web based GIS, back office systems, automatic address retrieval, database, GPS, 3D, camera integration, communication, navigation, mapping, disaster management, personal locators, covert operations, ePCR, and a new vehicle multipurpose hardware platform with remote management and maintenance. Our products can be placed across the whole spectrum of critical communication, for example:

- CityGIS 8.0 powered by Orca is our latest version web based (HTML5) GIS and is designed for emergency centers and vehicles for dispatch. Within this dynamic and intuitive client the dispatcher can easily find needed information and share it with colleagues, with mobile systems in the vehicles or with other emergency centers. CityGIS 8 is designed to be easy to master and to get results fast without many actions. The systems' modular structure makes it easy to connect to new technologies or sources of information. It's built to evolve. This netcentric web based Geographical Information System architecture increases efficiency, cuts down costs and simplifies maintenance.
- CityGIS Navigator is a multiplatform navigation that quickly and safely navigates the vehicles to an incident. Meanwhile all necessary information about the incident, about victims, the surroundings and other need-to-know information is shown and easy accessible. The software also provides a platform on which a clear and direct communication between vehicle and control room is made possible.
- CityGIS C&D (Calltaking and Dispatch) is a web based (HTML5) version of our central emergency room system. The core principles of this development are efficient communication and an intuitive user interface, which can be deployed with the push of a button. The dispatched units will immediately receive all the needed information for a quick and effective operation.

Next to the described products we provide many more services over the whole scope of the critical network to make the work in the control rooms and on the streets more efficient and hence creating a better environment for the emergency services.

• CityGIS electronic Patient Report Form (ePRF), built in cooperation with our clients in the healthcare sector, enables paramedics and doctors to efficiently collect patient data that can be used to improve the level of patient care on the road and in the medical centers. The electronic Patient Report Form has been specially developed for the ambulance services. The touchscreen application enables paramedics to communicate with the control room, hospitals and billing systems. Due to the clear UI, ride and patient data can be registered and exchanged quickly. Ride and patient data are sent directly from the control room to the electronic Patient Report Form. Subsequently the paramedics are able to add extra information about the location or the patient. Once again, increasing efficiency of communication and saving valuable time.



Comtech Technologies

Public Warning

Comtech Technologies is a leading global provider of next-generation emergency systems and secure wireless communications technologies to commercial and government customers. From dense urban environments to statewide deployments, Comtech designs, develops and deploys advanced communications solutions for public safety. Comtech's innovative solutions support thousands of agencies affecting millions of lives to customers in more than 100 countries.



Comtech's emergency communications solutions are built on 40 years of research and innovation in the application of advanced hardware and software technologies for public safety. Purpose-built for public safety, Comtech's next-generation platforms provide modular, scalable solutions that seamlessly migrate legacy emergency communications operations to modern European Emergency Number Association (EENA) standards.

Comtech combines cloud-based caller location services with mapping and real-time data to provide a complete next generation communications solution for public safety on a global scale. Emergency communication centers need accurate, quality, and holistic location data to respond to public safety calls for service. Comtech's platforms provide the most accurate location data available with caller information, realtime traffic, weather, routing, and public information into a single common operation picture. Comtech also has a wireless emergency alert solution that is currently employed by governments worldwide.

Entrusted to streamline processes and enable a more efficient collection of critical information in emergency situations; Comtech's portfolio of public safety solutions and location technologies have been developed in accordance with rigorous industry standards and offer flexible, adaptable architectures that will scale to any organization's needs or regional governmental requirements. Comtech has a wide variety of solutions which include, but are not limited to:

- Guardian Insights A reporting and analytics application specifically designed to assist call taker staff to know their operations so they can better plan and manage their workloads.
- Guardian Messenger Readies call takers with the ability to collect, process and share previously unavailable live incident information such as text, photos, and video via short message service (SMS)/ multimedia messaging service (MMS), from one integrated desktop.
- Guardian Cybersecurity A turnkey, enterprise-grade service that combines a deep understanding of public safety operations with expertise and technologies from leading IT security companies designed to combat and protect operations against potential cybersecurity threats

- SmartResponse™ Real-time situational awareness in a common operating picture for security agencies and first responders using intuitive geospatial mapping interface and location intelligence to increase the efficiency of first responders in emergency situations.
- Comtech Maps Empowers first responders with an extensive library of map data that can be
 extended with customer overlays providing additional contextual data. This solution is tailored to any
 organization's needs.
- Wireless Emergency Alerts (WEA) Enables government officials to inform the public about lifethreatening events by automatically delivering emergency alerts to mobile devices using the government alert gateway.

Comtech's suite of dependable public safety solutions provides complete, end-to-end call control designed to manage emergency communications, from any device, at any time, from anywhere, and in any format — voice, data, or video. Our network-to-desktop solutions are built and designed for IP-based call routing, IP-based Customer Premise(s) Equipment (CPE) and database systems, and for converging traditional voice and data into the network.

Comtech has achieved many industry firsts in North America including being the first to deploy a statewide NG system in Maine followed by deploying the first province-wide NG system in Alberta, Canada. Globally, Comtech completed the first continent-wide NG system deployment in Australia.

Comtech is uniquely qualified to improve public safety and security in Europe and worldwide.



CreaLog Software-Entwicklung und Beratung GmbH

Cloud Services

eCall Emergency Call Routing Next Gen Comms

Innovative, successful, customer-centric

CreaLog is a leading vendor of ICT carrier solutions and IMS cloud native service delivery platform solutions for communication service providers (CSP). With our concise expertise we help CSPs to implement new services and migrate their existing services to IMS and into the cloud.



These solutions include SIP application servers (SIP AS), net centric call recording, value-added services (voice, text messaging and mass calling), MRF, business voice VPN and others.

SIP AS: The main functions of the standards-based SIP application server are local number portability, enhanced call routing, conference bridge services, and unified messaging. It enhances IVR services with speech recognition and chat solutions.

We have been delivering innovative and reliable telecommunications solutions for almost 30 years and received multiple awards as a result. Customers in many countries in Europe and Africa trust our solutions. These include Deutsche Telekom, Vodafone, A1 Telekom Austria, Sunrise, Swisscom, POST Telecom Luxembourg, Monaco Telecom and Unitel.

Next Generation Emergency Call Steering & Termination

CreaLog emergency call steering and routing significantly improves the accessibility of emergency call organizations and facilitates emergency call handling. The enabler is a routing system integrated into the CSP's voice and IMS networks as well as ESINET and NG112.

Net-centric eCall Modem and Router

We enable telecommunication companies to meet the challenge of processing eCall emergency calls and their supplementary data in their respective mobile networks and routing them to the PSAPs according to EU specifications.

CreaLog's' net-centric eCall Modem and Router collects the MSD data, stores this data in the Location Information Service (LIS) and forwards the emergency call to the PSAP. This solution reduces complexity in the PSAP equipment and leads the path to NG112 in your country.

Enterprise Communication Recording (ECR)

Our net-centric Enterprise Communication Recording (ECR) service ensures compliancy when recording emergency communication. This highly secure net-centric Telco service is invoked on calls of any registered employee when using his or her business phone as part of his or her job, be it in the office, on the move or in home office. The recordings can either be stored for compliance reasons, or used for quality assurance.



Creativity Software

Caller Location

Disaster Managemen

Emergency Call Management

Information Analytics

Public Warning

Location Intelligence for Emergency Services: Delivering the Highest Audited Location Accuracy Worldwide



Creativity Software is a global leader in mobile network location intelligence for Emergency Services, delivering the highest accuracy worldwide – consistent, measurable and audited. Our solution "CS LocationWise" provides real-time, historical and mass location intelligence without relying on the device, but can also combine with the device location technology (e.g. GPS) to provide the most accurate location data. We support Emergency Services by offering:

- The most accurate caller location available from the network or the device
- Public Warning Systems Cell Broadcast and Traceable Disaster Alerts
- Track & trace to monitor and control pandemics such as COVID 19

CS LocationWise is a location-based services platform that encompasses the Gateway Mobile Location Center (GMLC), Serving Mobile Location Center (SMLC) and Bulk (Passive) nodes for 2G, 3G, 4G and 5G networks. Our platform is a standards-based software solution that extracts data from the network and uses highly precise algorithms to locate all mobile phones, with patented CS algorithms to significantly improve accuracy.

CS LocationWise supports NG-112 (Europe), NG-911 (USA, Americas) and M/493 architectures; the solution also supports 4G IMS networks with LRF/RDF nodes required to handle emergency calls on LTE networks (VoLTE) as well as VoNR (Voice over New Radio) to enable emergency calls over 5G networks to be located.

CS LocationWise can be provided as a standard cell-id only accuracy GMLC, or high accuracy SMLC/E-SMLC/SAS with optional support for control plane A-GPS and the Creativity Software's proprietary Accuracy+ very high accuracy network-based location.

Delivering the Most Accurate Mobile Caller Location - From the Network or the Device

As over 75% of emergency calls now come from mobile phones, it is vital for Emergency Services to be able to quickly and accurately locate these callers to rescue them. Therefore, many countries have mandated Mobile Network Operators to provide a caller location service to support Emergency Services in their mission to save lives. However, accurate and fast caller location is a challenge, and many Emergency Services rely on technologies which can only locate the caller within several kilometers (e.g. cell towers) or which lack consistency (e.g. GPS can fail indoors or with bad weather etc.).

Creativity Software delivers location intelligence solutions that combine both device and network-based solutions to quickly calculate the mobile caller's most accurate position. The solution:

- Provides the highest accuracy network location available worldwide consistent, measurable and audited
- Leverages Advanced Mobile Location (AML) data from Android and Apple devices
- Supports all PSAP structures (multi-region, multi-number) Push and Pull requests

Superior AML (Advanced Mobile Location) expertise with a ready-to-use solution

AML-enabled smartphones (Android or iOS) can leverage GNSS (Global Navigation Satellite System), Wi-Fi or Cell-ID information from the device to send the caller's location to the Public Safety Answering Point (PSAP), where the emergency calls are answered.

Creativity Software offers a ready-to-use AML solution "CS AMLWise" that allows Emergency Services to receive and decode AML data; and fully integrates with Command and Despatch (CAD) software or other third-party systems that are used by PSAPs. The system can operate as a standalone solution or connect to a mobile network to combine AML and signal data for enhanced location calculation.

CS has superior AML technical expertise and experience, having deployed the solution, and been sponsored by the European Commission since 2016 to examine, test and support the deployment of AML across 7 member states, as part of HELP112 Phase 1 and Phase 2 projects.

The Importance of a Network-based Solution

Whilst AML can help locate emergency callers and even improve the location accuracy to below 50m, an AML only solution is limited in that it is only possible for AML-enabled smartphones and where the PSAPs have AML technology in place.

Despite the rapid growth of smartphones worldwide, many people still have basic phones that would not be located with AML. According to Pew Research Center, this is particularly true in emerging economies where up to 45% of adults do not have a smartphone. This is also true in advanced economies where the proportion of non-smartphone owners can exceed 30% – the elderly population, the most disadvantaged and vulnerable may be particularly affected.

The CS network-based location solution provides the safety net, offering accurate location data for any device and any network technology. For example, in Colombia, CS has been delivering against the highest and strictest accuracy requirements in the world, with a 50-meter network location accuracy, which is more than sufficient to direct emergency vehicles to a critical incident.

Delivering Public Warnings: Cell Broadcast & Traceable Disaster Alerts

In light of the natural disasters, terrorist attacks and health crises that have been afflicting the world, many governments are mandating Mobile Network Operators to deploy new Public Warning Systems (PWS) to help safeguard the public more effectively. The EU has also issued a directive for its member states to implement, by 21st June 2022, PWS that can easily be received by end-users within the area of concern.

Creativity Software understands that the management of such events requires more than a simple message to all mobile devices. By extending the capabilities from outgoing message to movement tracking and follow-up messages, the emergency services are empowered with the tools and information that allow them to manage what can be complex and frightening situations for the public.

We offer the two types of PWS that are recommended by the European Emergency Number Association (EENA) to effectively reach people in a specific area, on their mobile phones:

- **CS Cell Broadcast:** a location-based broadcasting platform that can send alerts to millions in seconds and works even during network congestion, with no user interaction required and the capability to broadcast across multiple channels. It is a next-generation Public Warning System that is compliant with the 3GPP and Emergency notification standards. It is a proven solution, with Tier 1 Mobile Operator references and multi-network national deployments.
- CS Traceable Disaster Alerts: a location-based SMS system that can identify the number of subscribers in the area, send SMS alerts, confirm message delivery, and further alert people entering or not moving from the area at risk. It helps optimise the emergency response efforts by enabling them to gather intelligence on the effectiveness of the warning, monitor the incident area and track the affected population movements.

• A hybrid solution: Whilst the two systems can be bought and used separately, integrating them helps to manage disasters more effectively. For instance, the Cell Broadcast system can send a message to the public asking them to move away from an incident; CS Traceable Disaster Alerts can then identify the number of subscribers who are still present in the affected area and send targeted SMS to further encourage action, message delivery can be confirmed, and individual device locations can be tracked in real-time.

Enabling Track & Trace - to Monitor and Control Pandemics

Today the entire world has fallen victim to the Covid-19 virus – and governments across the globe keep fighting to control and curb the spread of this virus. The need to rise to this challenge is urgent as the virus is destroying many lives and forcing governments to restrict people's movement, which has had devastating effects on businesses, economies, and people's mental health.

Understanding the spread of the virus in real time would enable governments to make better decisions, to optimise restrictions when necessary, and to ultimately curb the spread of the virus as early as feasible. However, this is a complex process and has so far been a struggle for governments. The ability to have a granular, real time understanding of how the population behaves, moves, and responds to restrictions offers an answer to the issue.

Creativity Software offers a proven, end-to-end solution for this, enabling governments to effectively track, trace and analyse the movements of populations to better respond to pandemics such as Covid-19 and to control the spread of infectious diseases.

Beyond Regulation: Enabling Operators to Monetise Location Intelligence

Many Operators have an obligation to deploy a network-based location solution to support Emergency Services. While fulfilling their duty, Mobile Operators can also leverage this investment to generate new revenue opportunities based on location services.

CS Location Intelligence solutions are being used by Operators to enable multiple commercial services and new business models. Furthermore, although some countries have a low accuracy location mandate for Emergency Services, being able to provide high accuracy emergency caller location can be used as a competitive advantage for an Operator and provide additional commercial benefits.

When it comes to location intelligence, Creativity Software has the technical expertise to implement a 5G ready solution that will deliver superior results to meet both regulatory and business goals.

Creativity Software is a Recognised Expert in Mobile Location Intelligence

Creativity Software (CS) has been trusted by Mobile Network Operators, Emergency Services and Governments for over 16 years, across 5 continents, covering more than 700 million subscribers:

- We deliver against the highest and strictest accuracy requirements in the world e.g. in Colombia, with a consistent and audited 50 meter network location accuracy.
- Our caller location solution supports the UK 999 emergency services, among many others
- Operators keep choosing CS LocationWise to replace their existing location solution. The main reasons stated were our 5G and Cloud capabilities, reliability, technological advances, superior support levels and capability to deliver both regulatory and commercial use cases.

Creativity Software has also been playing a key role in industry developments:

- CS launched the first commercial Location Based Service in the UK in 2004 with a family finder service.
- CS helped to shape and define the first Code of Practice for Location Based Services serving on the Steering Committee of the UK Code of Practice for Location Based Services in conjunction with the Home Office, the Association of Chief Police Officers, the UK Mobile Operators and Children's Charities.
- CS has been an Advisory Board Member of EENA Since 2011
- We have been sponsored by the European Commission since 2016 to examine, test and support the deployment of AML (Advanced Mobile Location) across 7 member states, as part of HELP112 Phase 1 and Phase 2 projects.

All these are an acknowledgment of our superior expertise. We truly understand the technical, commercial and legal framework within which Location Based Services can be deployed. We are the recognised industry expert.

To request more information, please email contact@creativitysoftware.net



CSAM Public Safety

Artificial Intelligence

CAD

Control Room Integration



Multimedia Comms

In emergency response situations, every second counts. Being in the right place with the right resources as fast as possible saves lives, reduces suffering and prevents property damage. All of this requires clear communication and smart management of limited public safety resources. Our complete software solutions provide just that – robust systems for managing every aspect of emergency response.



CSAM Public Safety has been supplying world-class emergency management software systems for more than 35 years – systems in which robustness and superior situational awareness are the key to success.

We provide high performance software products, develop client specific solutions and offer a wide range of professional services that help some of the world's most technologically advanced customers optimise their operations using real-time geospatial information.

In February 2021, CSAM Health Group AS ("CSAM"), the leading provider of niche eHealth solutions in the Nordics, acquired the Public Safety business of Carmenta Holding AB of Sweden. For more information see: CSAM Health Group AS acquires Carmenta's Public Safety Business – CSAM – The eHealth Company

Our Customers

Our customers use our High Availability products to build mission critical solutions used in national, regional and local operations within emergency call management, call positioning, resource management, rescue deployment, border surveillance and resource dispatch (ambulance, fire, police, etc.).

CSAM Public Safety have references in several countries, for example, in Sweden, Denmark, Spain, Slovakia, Croatia, Greece, etc. A relevant example is the national multi-agency system in Sweden, which manages, amongst other emergency services, call taking and dispatching for all emergency ambulances in the country.

In summary, we propose to you not only a well proven and true non-stop platform, but a future proof system that is continuously evolving according to the needs of our customers and the public safety industry.

By using the CSAM Public Safety solution, customers become part of an unique international family where experience with the system can be exchanged and new ideas generated for influencing the future direction of our solution.

Depending on the client's location and requirements, CSAM Public Safety can engage directly with the client or via a trusted system integration partner established close to the client.

Our Highlights

- 35 years development and operations of Emergency Response Solutions (since 1986)
- Integrated end-to-end solution covering the complete Emergency Response workflow
- 100% proven up-time with CSAM Public Safety Continuous Operation technology
- Large national and regional installations
- Advanced multi-agency operation in the same system
- More than 3000 operator seats in live operation today
- Open solution with large flexibility for adaptation and system integration
- Highly scalable solutions build as you grow

Our Approach

Our end-to-end approach is to provide and manage a portfolio of high-quality software products that can be used to build a wide variety of customer specific solutions. Our product approach ensures that our customers have a well proven platform and, with our well-defined portfolio roadmap, a future proof partner for their most critical operations.

The portfolio includes:

- Fully fledged C4IS system that integrates incident and resource management with communication systems, all in a single product
- Geographical information system (GIS) used in our mission critical solutions.
- Mobile applications intended for use in rescue vehicles providing full case information, navigation instructions and more information to the first responders leading the rescue operation

Every Second Counts

With the right decision making and resource coordination tools, the emergency response will be faster and more accurate. As efficiency increases, operating costs will start to decrease allowing a substantial saving for society, reduced suffering and lives saved.

Our Offices and Staff

CSAM has 15 offices in seven countries, employing approximately 230 talented individuals. CSAM Public Safety is headquartered in Gothenburg, Sweden.

More info can be found at:

CSAM - The eHealth Company (csamhealth.com)



DATUS

eCall

Interoperability Solutions

Multimedia Comms

Next Gen Comms

Voice Comms

Company Profile: DATUS was founded in 1970 and is a manufacturer-independent specialist for ICT solutions ever since. With the extensive solution expertise in the field of voice and data convergence in networks and applications, DATUS provides innovative standard and customized solutions for medium and large enterprises and public authorities. The focus is on communication solutions and the integration of various services (voice, data and multimedia) as well as customer-specific







solutions for special requirements, such as communication solutions for PSAPs. E.g. 100 of the 240 German 112 PSAPs are equipped with DATUS eCall decoders and more. One of our strength is our own development, engineering and consulting expertise and competence. Our solution-portfolio is completed by 24/7/365 service and support.

Areas of specialisation: customised solutions, services, development and products in the fields of ICT (Voice, Data, Security, Safety) for Business Customers, Public Authorities and Organizations with safety/ security tasks (BOS) and Military Sectors. In addition, products and solutions to migrate legacy voice and data applications to IP-based infrastructures (transport and transformation), e.g. ISDN to IP-Networks.

Areas of application: Large-scale and cost-effective applications in the area of IP-Telephony, Voice-over-IP (VoIP), Unified Communication (UC), Computer-Telephony-Integration (CTI) and Fixed-Mobile-Convergence (FMC) with IP-Communication Systems and Voice-/Media-Gateways. Solutions for Public Safety Answering Points (PSAP – emergency call center 112) to support telephony (IP-PABX), eCall, emergency call conferences, control and geo-information systems. Hardened applications for military ICT solutions in mobile environments.

Own Products, e.g.:

- IP-PBX and IP-Communication Systems (DATUS indali)
- Emergency Call Decoder and Gateways (DATUS IP-NDC and DATUS IP-NGW)
- VoIP/Media-Gateways (DATUS NTG, iAGS, MP/OP)
- Ruggedized VoIP-router and communication systems for special environments and requirements.

Services offered: Beneath service and support for our own products and solutions we offer a wide range of Professional Services in the fields of Consulting, Engineering, Development (HW and SW), Project and Rollout Management.

Technical expertise:

- Concepts and system-architectures for innovative and cost-effective communication solutions
- Comprehensive know-how in modern, legacy and customer-specific communication protocols like e.g. VoIP, SIP, H.323, TDM/ISDN (DSS1, Q.SIG), MGCP, IP, ATM, Frame-Relay, X.25 and its implementation
- Software development: PHP, C++, C, Java, LINUX, modern WEB technologies using WebSockets and WebRTC, Open Source Software advancements and customizations, database technologies, device drivers,
- Hardware development: embedded systems, standardized and customer-specific telecom interfaces and bus-systems, environment and EMC hardening, ...

Aims, cooperation fields and forms: To improve our aims as a specialist for innovative, customized and future-oriented communication solutions we are looking for partnerships with companies in need for customized and/or tailored telecommunication solutions. Further on we are interested in sales partners for the European telecommunication market and in the field of safety and security solutions.

Research and Development: Wide spread knowhow in software and hardware development (see above: technical expertise). Research e.g. in the fields of secure and trusted IP-communication solutions, next generation emergency calls, ...



Deveryware

Emergency Apps Emergency Call Routing

Multimedia Comms Next Gen Comms

Founded in 2003, Deveryware stands as one of the leading companies in investigative technology and global security services, and is committed to serving the security of States, companies and populations thanks to innovative digital technologies and high-value-added solutions.



The Group's offer, together with that of its subsidiaries, Tracip and Crisotech, covers judicial investigation and digital forensics, real-time geolocation platforms, cybersecurity, language analysis, anti-fraud services, crisis management and emergency communications.

Deveryware's capacity for innovation, commitment to values of respect for privacy and unprecedented experience and knowledge of the Homeland Security market, make the Company the trusted partner in public safety and security affairs. With a turnover of €41M in 2021 and its 160 collaborators, the Group is established in Europe, Africa, North and Latin America.

Emergency communications

Over the last years, Deveryware has gained considerable know-how and expertise in public safety, contributing to multiple European projects involving emergency services. Since 2015 Deveryware has created a platform, GHALE, that powers the services of the PEMEA standard (ETSI TS 103 478), delivering interoperability to emergency Apps, facilitating roaming and improved accessibility to emergency services for citizens experiencing disabilities or impairments.

The Deveryware GHALE platform is now in commercial deployments with the Emergency Services sector in several European countries such as Finland, Spain, Slovenia and Romania.

Furthermore, GHALE has successfully demonstrated full interoperability of PEMEA core services as well as advanced video calling with several other vendors during the latest ETSI Plug Test NG112. GHALE delivers PEMEA application multi-media communications from the public to PSAPs enabling Web-112. The idea of PEMEA is to offer App providers and PSAPs a stable standard based on typical web-based communication (e.g. HTTP), as an alternative to the SIP-based communication framework defined by the NG112 standard. The implementation of both NG112 and PEMEA enables PSAPs to provide the best service to the public. Having both solutions enables the creation of shared and scalable multimedia services, in line with telephony operator networks and Internet application provider communication approaches.

In April 2022, after Italy, Finland, Romania and Spain, it is the turn of Slovenia to join the group of European countries that are adopting the PEMEA standard to modernize their emergency communications and exploit all the possibilities of technology for public safety. By design, the PEMEA network enables roaming. This means that Slovenian app users will be able to contact not only the Slovenian emergency centres but also the emergency centres of European countries when they are abroad. In the same way, users of other PEMEA compliant apps will be able to reach the Slovenian PSAP. The agreement was signed at the end of 2021 between the Authority in charge of emergency communications in Slovenia (Slovenian Public Safety Answering Point: ACPDR/ Administration for Civil Protection and Disaster Relief), the French company Deveryware, which is a supplier of the PEMEA network elements through its GHALE platform, and Telekom Slovenije, the leading telecom operator in Slovenia which is hosting the PEMEA network elements in its data centres and is providing highly secured communications. The deployment is planned to be finished during the first half of 2022. The population of Slovenia is 2.1 million people who will be able to benefit from PEMEA technology when contacting emergency services

Employee safety

The team dedicated to GHALE has published in 2022, a white paper dedicated to emergency calling as part of business communications:

Difficulties related to the development of teleworking

With the development of teleworking, communications are increasingly done via collaborative applications (Teams, Zoom, Slack, etc.) built around Web technologies.

In many countries, regulations require that organizations accessing traditional fixed telephone networks (PSTN) also provide access to emergency services. But this presents significant technical challenges: Most enterprise emergency solutions work adequately for people making emergency calls in the office, where the caller's location is known. However, these solutions work less well when used out of the office.

Despite deployments of IP technologies in emergency networks, the further the caller is from the office, the more difficult it is for the telephone network operator to direct the call to the correct emergency centre.

Which solution for business communications?

Faced with these challenges, the white paper details the solutions provided by PEMEA (Pan-European Mobile Emergency Application), the standard that Deveryware supports with GHALE.

Location, video, chat, and text in real-time are therefore now available to companies and their employees for their emergency calls.

Crisis management

Deveryware has a crisis management department coordinated by its subsidiary Crisotech. The company specializes in advice and training in risk and crisis management and supports its clients through the entire crisis management process, from its preparation and anticipation, to its feedback. The company intervenes in missions relating to crisis preparation, advice and training, in particular through simulation. We are the first player to have invented in 2015, the "social room", to simulate the media pressure of social networks in the event of a crisis, the company is also recognized as the "Champion of France" of the crisis exercise. It also offers crisis assistance services (notably for cyber crisis situations) and crisis observation and feedback.

It also offers digital tools such as CAIAC, a geographic information system for risk and crisis management. This cartographic platform offers more than 400 layers of data on French territory, including 40 layers in real-time.



DS Information Technology

CAD Caller Location Disaster Management Emergency Call Management GIS

DS Information Technology Co., Ltd. (short as DS) is a professional solution provider of public safety and emergency command, which founded in 1993, Shanghai, China. After 30 years of deep cultivation in emergency command industry, DS is ranked first in market share of the public security, firefighting, commanding and dispatch industry in China. With the vision of "Making Life Safer", DS is dedicated to innovation for emergency response



technology. Meanwhile, on the way to develop better solutions and services for global customers, DS solutions always insist on end user-oriented and customizable.

As a specialist service provider of public safety and emergency solutions, DS integrates Cloud Computing, Big Data, AI, 5G, IoT, Converged Communications, which committed to providing a full range of services such as emergency command, decision support and early warning for governments and enterprises. In addition to the public safety and fire fields, specialized emergency solutions and integration services for large campus and urban governance are provided as well.

As the leading company in China's public security market, DS has been devoted to the global market. Since 2012, DS has exported the commanding solution to over 20 countries in Europe, Middle East, Latin America, Africa, and Southeast Asia, as well as the long-term service of consulting, operation, and maintenance. With all these successful experiences, DS has been kept at the forefront of urban emergency response innovation. According to the annual public security reports from the customers, the great contributing to policing efficiency and a significant increase in public sense of security and satisfaction has been made by DS' solutions and services.

For 30 years, the solutions of DS have served and been proven reliable by 500+ organizations domestically and internationally. We are willing to embrace change, fast respond to demands, deeply explore diverse scenario requirements, and take the advantage of industry knowledge, experience, and innovative technology to provide high-value solutions and services for our customers.

All Business Scenarios Full Coverage

Alarm Reporting Stage

Multi-Channel Alarm, Unified Access and Management

DS's self-developed communication platform has capabilities of multiple alarms access, voice and audio/video dispatching.

- 1. Supporting a variety of alarms access, including fixed-line, mobile phone, SMS, email, and automatically alarm, etc., making multiple channels of alarm reporting available for the public.
- 2. Supporting social media alarm access. Through the public alarm APP and Facebook alarm application designed and developed by DS, the public can quickly report emergency to the command center, establish contact with the command center in the first time, and then upload evidence files such as pictures and videos related to the command center if necessary.
- 3. The **Computer Aid Dispatch** platform supports unified access and unified queuing to various channels of alarm reporting

Call-taking Stage

Positioning

- 1. Supporting real-time positioning of cell phones, automatically alarm devices positioning and Internet positioning.
- 2. Through the Intelligent Positioning Platform, the command center is able to send a SMS to the alarm reporter to request for his/her current location. After the reporter authorizes the request, his/her location will be sent to the command center and associated with the event ticket automatically, and displayed on the Geographic Information System synchronously.

Standard Operating Procedure

According to the event's category and level, the **Computer Aid Dispatch** platform can automatically pop-up the standard questions for call-taker that should be asked in the operation of call-taking, to ensure that the event-related information is recorded quickly, standardized and complete.

Alarm Reception, Rapid Entry of Event Information

The command center receives alarm through the **Computer Aid Dispatch** platform and then starts to record event information. Key information such as event location, phone number, and event's responsible jurisdiction are automatically entered into the event ticket through the Geographic Information System, greatly improving the efficiency of receiving alarms and speed of call-taking operation.

Dispatching Stage

Onsite Situation Visible, Command Resources Visible

- 1. Based on the Geographic formation System(GIS), the scene situation is visual to the command center, the command operator is able to view the distributions of on-site units and vehicles, and track their real-time positions as well, which is conducive to resource allocation, accurate dispatch, and improve efficiency of command and dispatch.
- 2. After the event being located on the map, GIS can automatically display nearby cameras and onsite units, and available vehicles as well.
- 3. The command center is able to play the live videos from the nearby cameras and mobile terminals integrate with GIS.

Converged Video Conference, Efficient Collaboration

- 1. Muti-Media Dispatch Platform provides video conference function for command center to handle major events or other situations which required muti agencies collaboration like command center, police stations, onsite responders, experts, and involve traffic agency, fire agency, hospital as well, supporting a variety of terminal devices access from different video monitoring platforms, so the command center and other relevant agencies are able to handle the event together timely and make decision better.
- 2. The command center can use the **Collaborative Platform** to create a dynamic group (groups) to discuss how to handle a specific event, create tasks based on the event and assign to internal department operators or other department officers.

Releasing Instruction, Process Operation Automatically Recorded

- 1. At this stage, the command center can directly issue instructions by voice and video call to relevant departments and onsite responders through GIS and Multi-Media Dispatch Platform.
- 2. The Collaborative Platform supports the command center to create instruction ticket based on the event and allocate to involved department and onsite responders.
- 3. The Computer Aid Dispatch Platform has capability of allocating event ticket and releasing instruction to relevant police stations or onsite responders which equipped a terminal device and deployed Mobile Dispatch Application (MDA).

Event Disposal and Feedback Stage

- 1. Division centres or police stations receive event ticket and instruction released by the command center through the Police Station Application (PSA), and then conveniently sign instructions and complete process feedback with **Mobile Dispatch Application**.
- With the Mobile Dispatch Application, onsite responders can directly sign for event tickets and instructions, complete disposal feedback, and upload evidences (text, pictures, audio, video) to command center if necessary.

Intelligent Analysis and Reporting

- Report System provides the command center with functions of alarm-related information review, exporting and printing, including query and statistics of call-related data, event information, management-related and operators performance.
- 2. Map-Based Police Analysis Platform has capability of multi-dimensional data analysis, providing the command center with functions of event situational analysis, police force situational analysis, periodic and regional thematic analysis reports, and personalized export function is supported as well. It's convenient for the command center to conduct security trend analysis and comprehensive decision-making.
- 3. Dashboard displays the overall event situation to the command center, providing functions of multidimensional display of event-related situation and police resources-related data, such as focused event list, major event topic, and thematic analysis of responders. It supports command center to monitor the overall event process satus and responders' distribution, and it also can be used for work reports, and public media release.

Multi-layer Command and Structures Full Coverage

Multi-layer Structures Coverage and Adaptation

DS's Emergency Command Solution has capability of multi-layer command and adaptation with multi-level, multi-agency, multi-business department and multi-role, so we can cover all kinds of customer's department structures and different command layers. According to customer's organizational structure, we provide suitable applications and matched function features for their relevant department or agencies, so all involved departments or agencies at different structure levels are able to joint operation, better collaborate and timely communication.

- 1. **Multi-level command mode**: the command center dispatches events and instructions to division centres, police stations and others.
- 2. **Flat command mode**: the command center dispatches events and instructions directly to onsite responders.

Multi Modes of Event Process

DS's Emergency Command Solution supports different event process modes based on customers' needs.

1. Integrated Process Mode

The police operator handles the event process of call-taking and dispatching in one workstation. The police operator is responsible for answering the incoming alarm calls, filling in the event information, allocating the event ticket to corresponding jurisdiction and issuing disposal instructions, monitoring the event process and feedback

2. Separate Process Mode

With Computer Aid Dispatch Platform, the call-taker is responsible for answering alarm calls, and filling in event information, and then the event ticket can be allocated to specific dispatcher's workstation. The dispatcher starts to handle the event, such as event evaluation, analysis the event, and issue disposal instruction to relevant subordinate departments or field responders based on event category, or event's responsible police station or dispatcher's ID.

Voice and Video Convergence, Wireless Convergence

DS's Emergency Command Solution supports voice integration and video integration from different platforms and multiple terminals.

- 1. Realizing the integration of wired and wireless networks, supporting wireless command and dispatching.
- 2. Supporting multi-terminal and across-network video conferences, realizing unified information transfer and share among different participants, such as onsite responders, experts, alarm reporters, dispatchers, and decision makers, etc,
- 3. Supporting video conference from multiple video terminal, including handsets, vehicle-mounted cameras, CCTV cameras, UAVs, iPad, etc,

Keep improving with continuous innovation, serving customer with latest technology and solution, we are committed to making life more efficient and safer.



ELi-Technology

Caller Location

Cloud Services

Emergency Call Routing

Mapping

Next Gen Comms

"For a First Responder to help you, they firstly have to find you."

With the accelerated growth in technology, digitization, and automation around the globe the Emergency Number Network needs to keep evolving.



Today over 80% of all emergency calls emanate from a mobile device, and this figure will continue to rise. But still in 2022, knowing the location of that 9-1-1/112/999 mobile caller presents a huge challenge. An accurate verifiable dispatchable location, or a physical "door to knock on" during an emergency event, is not available, contrary to what many in our industry would have you believe.

Each year, tens of thousands of lives are lost globally when Responders cannot locate a mobile caller accurately or promptly. All current emergency location methodologies being used today do not provide a verifiable dispatchable address, and this impedes the efficiency and effectiveness of our service.

The goal for our Emergency Number Network is a "dispatchable location" which translates location data into a specific street address, floor, and room number of an emergency caller. All this whilst being interoperable, cost efficient and compliant with a country's privacy/security regulations, laws, and existing infrastructures.

Dispatchable location/address is the industry "gold standard" since no responder likes guessing if they need to kick down a door to save a stroke victim or arriving 30 mins too late when someone is having a heart attack…

Today, there is a methodology which offers the final piece to the location accuracy puzzle. It has been thoroughly real-world tested to ensure operational capacity across different networks, existing telecommunication infrastructures and handset manufacturers, with outstanding accuracy results...

We are ELi Technology, and our tag-based location methodology is "Emergency Mobile Location (EML). EML uses the existing Wi-Fi infrastructure, to offer two pieces of crucial localization information:

GPS coordinates

AND

• the complete dispatchable address, from a trusted authoritative source, including indoor and vertical location data.

EML encompasses the life-saving location information the Emergency Number Network needs, without compromising any of the crucial data privacy, security, or sovereignty concerns by providing:

- Cell tower, GPS Lat, Long, Altitude
- Street & Building number
- Vertical location as floor level
- Indoor location with room/ apt #
- Full Dispatchable location
- Approx. ~5m accuracy

The accurate location element provided by EML allows for Next Generation call routing and additional Next Generation ESN Services plus VoIP, social media, and accessibility for persons with impairments and disabilities.

ELi Technology, through EML, wants to help the Emergency Number Network save more lives with better mobile localization.

You may learn more here: https://youtu.be/B71s_t4w8yc

If you would like to discover how EML could impact your service, business, industry, or association, please email: Pablo.asiron@eli-technology.com or https://www.linkedin.com/in/pablo-asir%C3%B3n-5448932/

You may also contact us through our website:

https://eli-technology.com/general or https://eli-technology.com/team



Enghouse Networks

Caller Location

GIS

Multimedia Comms

Next Gen Comms

Public Warning

Enghouse Networks is a world-class telecommunications, technology and solutions provider. We have a number of software applications to enable public safety and emergency communication services. Our focus is the enablement of digital transformation, ultimately building a connected global community.



 ${\sf VP} \ {\sf of} \ {\sf Demand} \ {\sf Generation}, {\sf Networks}$





Enghouse Networks is a division of Enghouse Systems Limited (TSX:ENGH), a publicly traded Canadian software and services company established since 1984. Enghouse has 2000 employees and operates in 120 countries.

Alert Broadcast Centre

Alert Broadcast Centre (ABC) is a flexible solution for wireless public alerting. It supports the geo-targeted, mass distribution of emergency messages to mobile subscribers via multiple different channels (Cell Broadcast, SMS, Push Notifications, MMS, USSD). It also supports all standard interfaces through which authorities may submit alerting campaigns (CAP, CMAS, WPAS) and can easily accommodate others.

Depending on the architecture specified for a national alerting systems, Alert Broadcast Centre can be offered as a central solution to the national authority or to the operators of public wireless networks to help meet their statutory obligations in support of national and local alerting.

Alert Broadcast Centre also supports the configuration and scheduling of commercial messaging campaigns that do not interfere with emergency alerting, which help operators to monetise their investment.

The Alert Broadcast Centre solution comprises of multiple modules, some of which may or may not be required, depending on the type of system specified by a particular national regulator.

NOTE: The majority of National Regulators specify public alerting systems based on Cell Broadcast. If SMS is specified, we include additional modules in the solution to support geo-targeting.

For further information on this product please Contact Us

Learn More: https://www.enghousenetworks.com/portfolio/digital-transformation/alert-broadcast-centre/

Vidyo: Emergent/Urgent Care

The emergency department (ED) is one of the most expensive and resource constrained settings in healthcare. Health systems are turning to virtual care strategies to help them expedite triage, improve ED throughput efficiencies, centralize resources, reduce LWBS (left without being seen) metrics, and minimize unnecessary readmissions.

For health systems considering transforming their delivery model to include emergency department virtual care, Enghouse VidyoConnect Healthcare and vidyo.io provide an integrated approach to triage, on-demand specialist access, peer-to-peer collaboration, care coordination, and case management.

VidyoConnect Healthcare can be easily integrated with the provider's electronic health record (EHR) solution and workflows, browser and mobile-based patient portals, and existing scheduling tools. VidyoConnect Healthcare offers a unified user experience across mobile, desktop, and web platforms. This ability to connect from anywhere can enrich the patient provider experience with the addition of multi-participant capabilities, remotely operated pan-tilt-zoom cameras, medical exam cameras, and digital stethoscopes. VidyoConnect delivers the consistency, ease of use, and rich features that drive clinical adoption across the care continuum.

Learn More: https://www.enghousenetworks.com/Vidyo/

Network Service Assurance

Network service interruption can have dire consequences for a mission critical emergency communications networks. The Enghouse Service Assurance suite optimizes network performance by providing situational awareness. Empower your network to pre-empt, act on, and resolve network issues. Based on a two-decade history of innovation, Enghouse delivers a cost-effective, feature-rich solution for Service Assurance applications in wireless, broadband, fixed, and converged networks.

The Enghouse Service Assurance Suite is vendor agnostic, interfacing with all element management systems and active equipment in the network, regardless of the manufacturer or technology. Adding coverage of servers, databases, applications and environmental parameters provides a true end-to-end management capability on one platform.

Supporting high-volume event processing with advanced, flexible filtering and correlation, the Enghouse Service Assurance suite enables network engineers to find and focus on network issues. This happens without examining thousands of low-level events to isolate trouble spots and determine root cause, thereby saving precious time and quickly resolving network outages.

Learn More: https://www.enghousenetworks.com/ServiceAssurance

Emergency Call Routing

Most countries have a single number (such as 112 in Sweden) for emergency calls to the police, fire brigade and ambulance services. It is not only compulsory in many countries for operators to handle emergency calls from all types of users, including fixed and mobile phones, but for the emergency services to be fast and effective, different dedicated alarm centres are required to serve specific areas.

Enghouse Networks Emergency Call Routing (ECR) service application identifies the origin of emergency calls and handles the routing to the appropriate alarm centre. The operator can either send the correct routing number and information to the next carrier or route the call directly to the appropriate alarm centre.

Location information from the network can also be part of the emergency information to provide the Public Safety Answering Point (PSAP) with mobile positioning information.

For further information on this product please Contact Us



ER24

CAD Control Room Integration

Disaster Management

Emergency Call Routing

Emergency Call Management

Er24 is the premier private emergency medical care provider in South Africa.

We operate from 59 bases throughout South Africa and provide quality emergency response and pre-hospital care services, supporting both public and private hospitals.



ER24 is wholly owned by Mediclinic Southern Africa which represents the Southern African operations of Mediclinic International which is ranked as one of the top 10 private hospital groups in the world. It has 107 hospitals and clinics worldwide.

National emergency contact centre

At ER24 we have one national emergency number – **084 124** – operated through a state-of-the-art emergency contact centre. Highly trained and dedicated operators, using sophisticated dispatching software, mapping technology and medical databases, manage the centre 24 hours a day. This comprehensive support network enables us to customise solutions to meet our clients' individual needs.

Customised contact centre services

ER24 provides customised contact centre services for stakeholders to integrate their emergency protocols using our highly skilled staff and leading contact centre software. These services give our clients peace of mind that highly specialised help is available at the press of a button.

ER24 is the South African operator for Vodacom and Cell C's 112 Emergency Centres.

A dedicated **Emergency Text Service** specifically for the Deaf, hearing and speech impaired is operated through the ER24 112 Centre for clients on the Vodacom cellular network. The disability/hearing impaired service was developed ER24 in conjunction with Mediclinic Southern Africa's ICT team and Tech Mahindra.

Operational solutions

Operational solutions include a fleet of over 300 rapid response vehicles and ambulances. The aeromedical fleet includes helicopter and fixed-wing air ambulances in strategically located areas to minimise flight response time.

ER24's Global Assist services extend the capabilities of the aeromedical fleet and industry expertise. ER24

Global Assist is connected to an expansive network of emergency service bodies in an integrated scene management system which provides our global client portfolio with access to aeromedical evacuation services in Africa and abroad. The Site Based Medical Solutions division provides a medical assistance infrastructure to mitigate on-site accident risk hence minimising health and safety impacts.

For more on ER24's products and service offerings in South Africa and abroad, visit our website on https://er24.co.za



Fsri

Big Data

Emergency Call Routing

Mapping

Public Warning

Esri, the global leader in GIS (Geographic Information Systems), is leading the way in emergency communications with unprecedented investments in research and development on next generation 112 capabilities PSAPs. Our platform enables intelligent collaboration, operational awareness and cutting-edge capabilities. GIS webmaps consume and manage sensor data, IP intelligence and the IoT (Internet of



A Mike King

Director, Emergency Communications & Fraud Solutions



Sesti.com/en-us/industries/public-safety

Things). PSAPs use Esri to improve CAD and RMS solutions, manage address data and transform digital capatilities. We support your efforts with geospatial tools to create service districts, maintain data, analyze information and visualize your mission-critical work in real time. Collect and observe information in the field or collaborate from the command center. We understand 3D and have been solving z-axis challenges for years, including developing tools that assist in creating 3D building exteriors, 3D indoor floorplans with egress/access routing capabilities and 3D landscapes. Esri is a proven organization with offices throughout the world that has been doing GIS for more than 50 years. A proven technology that brings clarity to location data. The ArcGIS platform offers a stable environment for designing and managing solutions with configurable, "out of the box" capabilities and a growing library of free templates and tools.

Esri • THE SCIENCE OF WHERE™



eurofunk KAPPACHER GmbH

CAD

Control Room Integration

Emergency Call Management



Voice Comms

eurofunk is one of the largest system specialists for the planning, setup and operation of command centers and emergency call centers in the field of public safety as well as industry and transport. Our customers benefit from our holistic overview, comprehensive product portfolio and expertise in solutions. With our technologies and holistic system solutions our partners are optimally equipped to fulfil their professional safety remit. Alongside the best possible operational reliability, increases in quality and efficiency have utmost priority.



With this unique cluster of competencies, eurofunk is your **360° solutions** company for all matters concerning command center technology.

As a forward-looking family-run company, we are a reliable partner with a team of over 500 specialists focused on providing you with a comprehensive and top-quality service.

The needs of our customers as well as our drive to develop modern technologies for sustainable use motivate us to shape the safety of tomorrow together with you.

So you can understand how we work:

- 360° Solutions: We are not a conventional system integrator. On the contrary, we create a fully integrated operation center solution for you.
- 360° Products: We are also not a pure manufacturer of singular products sold by third parties. All our products of our most comprehensive portfolio of specialized operation center products fit into an integrated suite.
- 360° Service: We are not an anonymous call center operator, where you feel your requests are lost in the service operations in search of competent support between the "interfaces". Furthermore, we offer you a unique and personal service, throughout the entire lifecycle of your custom solution

eurofunk solutions and product portfolio in detail

Command & Control

The correct and reliable information, at the right time, combined with experience, professional competence and thorough preparation are the success factors that make up an efficient and high-quality operations management.

Our solution is designed as an **open Operation Center ECO system** that collects, processes and enriches the **countless amounts of information** from a wide variety of communication and information sources, in order to make it available to all mobile and central agents in the form of an **information hub**. All current and future communication and alert channels can be embedded in a flexible and service-oriented manner into the overall system.

Communications

Secure communication for an operation center is like the human central nervous system. Countless amounts of voice and data communication content must be collected, processed, stored and re-routed to a wide variety of information recipients via a network.

In our fully digitalized world, we only talk in the strictest sense of **IP-based data** (with communication content), which we merge in our **Unified Communications Cloud** and store in a revision-proof manner. The real-time availability of all communication channels in a **location-independent** and networked system, guarantees the high-availability architecture as well as the integrated **free-seating principle**.

Our solutions allow you to embed a wide variety of current and future communication media in our solutions in a flexible and distributed manner. In the traditional sense, this ranges from emergency call processing (112), business telephony (VoIP/ISDN), analogue and digital radio or public address and intercom systems to video telephony, new social media or messenger services.

Multimedia Solutions

The intelligent and comprehensive provision and distribution of video, image and sound information from various sources is key, especially in an operation center is an important factor.

To provide this, we will be happy to plan multimedia collaboration systems for your operation center – e.g. video walls, video management software or similar – which optimally support the sharing of information, regardless of whether they use internet streams, video images, TV or software applications. Using state-of-the-art management software, the dynamic layout on media walls can be individually designed, and video camera images from a wide variety of sources can be displayed there or at the individual workstation.

At eurofunk, however, we understand multimedia solutions to be much more than that. For our customers, we integrate and design all types of acoustic and building management systems, such as station alarms (incl. surveillance display solutions such as eurofunk Mission Information Display) or building bus systems, seamlessly and IP-based into our high-availability solutions, in order to operate them automatically via touchscreen or in the operational process sequence.

Control room design

For us, the **operation center room**, the **integrated design** and especially the embedding of the control center table play an essential role in operating a control center. That's why we are happy to advise and plan the **optimum control center room** with you according to your needs and equip it with the most state-of-theart operation center equipment.

Focusing on workplace ergonomics we designed our **new eDESK** product family. It is a perfect combination of simple, elegant design and intuitive handling. True to the motto "design meets technology", individual components have been united to create a complete mission control system with a balance of virtual and actual workplaces. The consistent implementation of the "clear desk" principle has helped us free the space of unnecessary distractions, thereby reducing psychological stress and increasing concentration levels.

IT solutions

The availability requirements for mission-critical operation center solutions require state-of-the-art IT platforms and data center architectures, in order to be "online" at all times. Network concepts, virtualization architectures, cluster technologies, load balancers, databases, monitoring, deployment and analysis tools, IT security tools as well as redundancy mechanisms from the modern IT world must be consistently designed in perfect union with the operation center applications and services and made available as an All-in-One solution, in order to master and manage the complexity.

As a competent partner, eurofunk is **ISO:27001** certified and we will be pleased to provide you with your operation center IT solution.

eurofunk 360° Service in detail

Our 24/7 service concept based on the ITIL framework offers you a contact person for your concerns around the clock. A professional service desk with technical support from experts, who provide all three levels of support in one place, is on call to ensure that you and your technical interface problems are not left high and dry with different suppliers.

With our **comprehensive field service**, we ensure that we can provide you with immediate on-site support in addition to our remote access technology.

Our **Customer Care Center** is the central dialogue and feedback partner for you, who, together with **Customer Consulting**, will advise you on your solution and all **your future challenges and opportunities**.



Everbridge

CAD

Control Room Integration

Disaster Management

Next Gen Comms

Public Warning

Everbridge is the most trusted and experienced global provider of Public Safety, Public Warning, Population Alerting, CAD, and Incident, Disaster and Crisis Management solutions and offers:

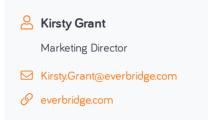
- Public Warning Solutions
 - Unified alert management front-end and gateway which connects to any alert system, modern (Cell Broadcast, Location-Based SMS) or classic (email, mobile app, sirens, TV, radio, digital signage, social media)
 - o Proprietary one2many Cell Broadcast backend
 - o Proprietary Location-Based SMS backend
- CAD, Incident and Disaster Management Solutions
 - o Situational Awareness dashboard with risk intelligence, weather data and custom feeds
 - Emergency call handling system with call routing and dispatch management (CAD)
 - Resource management systems (such as COVID-19 vaccine inventory)
 - o End-to-end incident, crisis, and disaster management platform

The Everbridge Public Warning platform provides a comprehensive, feature-rich, multi-channel, multi-agency solution to help Governments, Public Safety, and Security Authorities keep residents and visitors safe when it matters most.

The Everbridge Public Warning platform meets and exceeds the requirements of EECC Article 110. Everbridge is the only vendor that can deliver both of the technologies recommended by BEREC in a single platform and without the need for any third-party dependency.

Everbridge is the world's most trusted national public warning solution. Our purpose-built platform offers unique benefits:

- Our own flexible unified alerting front-end and gateways to interface with any communication system
- Our own best-in-class Cell Broadcast technology
- Our own best-in-class Location-Based SMS technology
- Engineered, built, and supported in Europe



Trusted All Around the World

Everbridge leverages its Critical Event Management solutions to deliver the world's most widely used population alerting solution, reaching over two billion people in more than 200 countries. As the global leader in countrywide population alerting deployments, Everbridge supports European countries such as Spain, Estonia, Greece, Iceland, the Netherlands, Norway, the UK, and Sweden. In addition to Europe, Everbridge supports countries in the Middle East, Asia Pacific and Latin America including Australia, New Zealand, three states in India, Peru, and Singapore. Everbridge also offers its services to industries including public security, telecommunication, hospitals, oil and gas, aviation, educational institutions, public service, and national security.

Unique Advantages of Everbridge

- Over 20 years' experience in the field of Public Safety, Public Warning, CAD and Emergency Management
- The only Public Warning solution provider that delivers a government alerting front-end and gateway, a proprietary Cell Broadcast back-end, and a proprietary Location-Based-SMS backend. All components can be delivered together or standalone
- Unrivalled number of successful nationwide Public Warning deployments
- Sophisticated geo-targeting capabilities
- Communicate across all phases of the incident's lifecycle (Receive, Respond, Recover, Report)
- Communicate with all stakeholders: People who can help, People who need to know, People who are impacted
- Define incident zones and automatically alert people entering or leaving an impacted area
- Meets and exceeds the requirements of EECC Article 110
- Best-in-class technology for Cell Broadcast including:
 - Speed of message delivery when time is of the essence
 - Congestion-free notification bypassing SMS network
 - o Unique, recognizable alert tone
 - Messages in native languages
- Best-in-class technology for Location-Based SMS including:
 - · Location intelligence to target alerts to specific groups
 - Multi-lingual messaging based on SIM card
 - Two-way engagement and communication
 - Target people with special requirements or needs
 - Traveler alerts to citizens who are overseas
 - Target alerts based on static, dynamic, and expected location
 - o Target alerts based on historic 'footprint'
- The only vendor to have successfully deployed a hybrid solution combining CB & LB-SMS for nationwide population alerting
- On premise, hosted or cloud-based model as well as customized platform deployments

• Flexible solutions that can be optimized to the needs of the sending authority, helping to meet functionality expectations and resource constraints

one2many, acquired by Everbridge in March 2020, is a leading global vendor of nationwide public warning solutions for governments and the telecommunications industry. The one2many Cell Broadcast System is the most advanced and high-performance Cell Broadcast System in the market, with more than 85 deployments worldwide. The combination of one2many and Everbridge creates the largest and only public warning system offering multi-hazard, multi-channel alerting including Cell Broadcast and Location-Based SMS.

Techwan, acquired by Everbridge in 2020, is a Swiss company and is a leading provider of public and private safety and emergency solutions. (See separate entry for more information on Techwan's offerings).

F24 AG

Control Room Integration

Disaster Management

Emergency Apps

Multimedia Comms

Public Warning

Head of Product Public Warning System

Amélie Grangeat

f24.com

About F24 Group

F24 is the leading Software-as-a-Service (SaaS) provider for Incident and Crisis Management, Emergency Notification and Public Warning Systems in Europe.

Founded in 2000, the F24 Group has its headquarters in Munich, Germany. Along with its subsidiaries, it supports more than 3,000 companies and public organizations in more than 100 countries around the globe.

F24 Mission Statement

"Our solutions enable you to save lives and values!"

With its solutions, F24 provides a highly innovative platform to help customers around the world to successfully and efficiently manage incidents, emergencies and critical situations - before, during and after a crisis.

F24 Public Warning System

In December 2020 **Gedicom**, as a core expert for public warning, became a valued member of the F24 Group to strengthen its expertise in this area.

The F24 Public Warning System is fully compliant with the EECC, Article 110. It supports a multi-channel approach, that enables you to trigger a variety of alarming channels, such as

- Cell Broadcasting
- Location-based SMS
- E-Mail
- Social Media
- vocal messages
- notifications on apps
- sirens, digital signage

It is characterized by an intuitive user interface, as well as an extensive logic for

- rights management (who is allowed to do what and in which region)
- approval of alerts
- mapping of complex structures from federal, state and regional levels
- geographical delimitation of alerts based on digital maps
- planning of time-related alarms
- creation of predefined alarm plans

Public Warning References

Since 2016, Gedicom is in charge of the national Public Warning System in Belgium with more than than 6,000 users in 1,500 entities using it every day. Especially in the times of Covid-19 the system has proven to be a key tool to inform the public and flexibly manage a national crisis respecting local responsibilities.

More than 600 ministries, regions, cities, emergency services, police stations all over Europe are relying on the F24 Public Warning System.

Certifications

F24 Group was the first company in the world to be certified by 'The British Standards Institution (BSI) in 2010, for its integrated information security (ISMS) and business continuity (BCMS) management systems. The F24 AG and the majority of its subsidiaries are ISO/IEC 27001, ISO 22301 and ISO 9001 certified. F24 AG is the first and only European company listed in the Gartner report for emergency/mass notification services (EMNS).



Ford

www.corporate.ford.com.



Ford Motor Company is a global company based in Dearborn,
Michigan. The company designs, manufactures, markets and
services a full line of Ford cars, trucks, SUVs, electrified vehicles
and Lincoln luxury vehicles, provides financial services through
Ford Motor Credit Company and is pursuing leadership positions
in electrification, autonomous vehicles and mobility solutions. Ford
employs approximately 200,000 people worldwide. For more
information regarding Ford, its products and Ford Motor Credit Company, please visit

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Ford of Europe is responsible for producing, selling and servicing Ford brand vehicles in 50 individual markets and employs approximately 53,000 employees at its wholly owned facilities and approximately 68,000 people when joint ventures and unconsolidated businesses are included. In addition to Ford Motor Credit Company, Ford Europe operations include Ford Customer Service Division and 24 manufacturing facilities (16 wholly owned or consolidated joint venture facilities and eight unconsolidated joint venture facilities). The first Ford cars were shipped to Europe in 1903 – the same year Ford Motor Company was founded. European production started in 1911.

Emergency Assistance Overview

In the unlikely event of an accident, Ford's award-winning Emergency Assistance* feature is triggered by an airbag activating or the fuel pump being shut off. As long as the user's mobile phone is connected to Ford's infotainment system, the technology can use it to help make a direct call to the emergency services, giving them crucial information, such as GPS coordinates, and the ability to communicate with vehicle occupants. Emergency Assistance won "Best Mobile innovation for Automotive Transport or Utilities" at the 2012 Global Mobile Awards and a 2012 Euro NCAP Advanced Award.

[*] Ford Emergency Assistance operates in over 40 European countries. This feature works when paired with a compatible connected mobile phone that is with you when an airbag is deployed (excludes knee airbags) or a sensor that registers a crash deactivates the fuel pump.

Emergency Assistance Free Training Materials

Ford Motor Company has prepared a comprehensive training package to help call takers answer Emergency Assistance calls confidently and professionally.

The website is designed to provide call takers with information about Emergency Assistance: emergencyassistance.ford.com. You will find a Call Taker Training Video, Quick Reference Guide, Frequently Asked Questions, and downloadable reference information in multiple languages.

Educating to Help Save Lives

Every 112 Public Safety Answering Point is encouraged to share the website information with trainers and call takers to help prepare them for potential Emergency Assistance calls, and to include this information in all new call taker training.

eCall Overview

eCall** is a potentially life-saving feature that's designed to reduce the time between a serious accident occurring and assistance being provided by the emergency services. In the unlikely event of an accident, FordPass Connect can automatically place an eCall to the emergency services and provide them with your vehicle's location. You can also press an SOS button in your car to contact the emergency services directly if you witness an accident or require assistance in an emergency.

[**] eCall is a European Commission initiative which mandates an in-vehicle system that calls emergency services if an automatic eCall event is activated by detection of a serious road accident, or if a manual eCall is triggered by a vehicle occupant.



Frequentis

Control Room Integration

Emergency Call Management

Multimedia Comms

Radio Solutions

Recording Solutions

Experience and Innovation: Integrated Dispatch and First Contact Solutions.

Frequentis safety-critical communication and information solutions leverage more than seventy years of experience, driving innovation throughout the company's history with many 'industry firsts'. For more than two decades, it has been supplying

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 Regional Sales Manager Central Europe | Public Safety
 ✓ Ivan.Gojmerac@frequentis.com
 ✓ frequentis.com

emergency services and critical infrastructure organisations with highly reliable, easy-to-use control centre solutions. As communication technology evolves towards more open and multimedia-oriented standards and platforms like NG112 and MCX, Frequentis is leading the way in defining and implementing these standards through active participation in industry organisations, such as EENA, NENA, APCO and TCCA. Find out more about our Public Safety achievements here: YouTube.

With an installed base of users across the globe, the company is serving some of the world's largest and most demanding public safety institutions:

- Building on its long-standing, successful relationship with the **London Metropolitan Police Service** as one of the most renowned public safety organisations worldwide, Frequentis has recently been tasked to support the realisation of the **Met**'s "Total Digital Policing Strategy" with its multimedia communications platform 3020 LifeX".
- In addition to single organisation deployments, 3020 LifeX[™] also has a proven track record in simultaneously supporting multiple organisations, e.g. in the **PERLE** project for the **Hamburg Fire Brigade** and **Hamburg Police**. In PERLE, Frequentis serves as a future-ready technology partner which increases both organisational efficiency and operator convenience, optimizing emergency communication with the citizens and the first responders.
- Apart from regional deployments, 3020 LifeX[™] also comprises a communication backbone for nationwide public safety deployments, e.g. for the **ELKOS** system by the **Austrian Federal Police**. ELKOS represents a unified, logically centralized, and highly georedundant system which supports Fire control rooms in Lower Austria and all Federal Police control rooms across Austria. Other nationwide deployments include the Ambulance Radio Programme in the UK and the Police Service of Scotland.

Based on this success, Frequentis has continued to expand its customers base in the international Public Safety market in recent years.

Highlights of the Frequentis portfolio include:

- The **3020 LifeX**™ multimedia integration platform utilises a service-oriented architecture (SOA) combined with multi-tenancy capabilities in order to support the virtualisation of control centre operations in hosted data centre deployments. It provides a fully-fledged contact centre solution for emergency call taking (including attribute-based ACD and IVR), radio dispatch (simultaneous connection to TETRA, MCX and other professional mobile radio systems) and seamless integration with common CAD/GIS and recording solution providers using standards-based interfaces. The use of web-client technology enables key information to be presented on any device (PC, laptop, tablet, mobile phone) with proper security authorisation, dissolving the physical borders of a control room. In addition, Frequentis 3020 LifeX™ encompasses a fully integrated recording solution which covers all control room communication streams, incl. voice, video, chat, instant messaging as well as other social media channels.
- The **DIVOS** logging system collects and archives phone and radio communication, while also capturing screens, giving operators and investigators easy access to securely stored information. DIVOS scales from single to distributed logging systems and provides powerful web services for full integration with other mission-critical information systems.



Garmin International Emergency Response Coordination Center (IERCC)

Emergency Call Routing

Emergency Call Management

Public Safety

The International Emergency Response Coordination Center (IERCC).

based in Montgomery, Texas, was officially founded in 2007 and was acquired by Garmin at the end of 2020. It is the emergency response coordination center for satellite notification devices and has coordinated more than 10,000 incident responses in more than 165 countries. The IERCC has agreements with several satellite equipment providers to provide emergency response coordination services to each providers' customers.



Emily Thompson

Special Projects Leader





9 geosresponse.com

How It Works

In order to send an SOS alert to the IERCC, an individual must have a supported device and an active satellite, cellular or other communication network service plan. The IERCC is staffed 24/7/365 and can interact in more than 200 languages and dialects with the help of third-party interpreters. Each IERCC Search and Rescue Coordinator (SRC) must complete rigorous training, which includes hours of on the job training. The IERCC SRCs work together on each SOS alert received by the IERCC to help ensure that they can quickly coordinate with rescue authorities or others to provide assistance. For devices with two-way communication capabilities, the IERCC can stay in contact with the user until help arrives or the user no longer requires assistance.



Genasys

Disaster Management

Emergency Apps

GIS

Public Safety

Public Warning

Genasys, The Critical Communications Company is a leading provider of Mass Notification and Public Warning Systems, with more than 20 years of experience.

Our National Emergency Warning System, **NEWS**, employs all the expertise we have gained in deployment of critical solutions all over the world. These solutions have already proven to be successful, having sent more than 100 million emergency messages.



Mobile-Based Multi-Channel Public Warning System

Genasys NEWS is a mission-critical, efficient, modular, and scalable solution, which allows the use of multiple communication channels to maximize population coverage, attention rates, and alert comprehension by sending information in different languages.

Our objective, to provide an effective system that saves human lives, becomes achievable through our multichannel approach which includes:

- Location based SMS and Cell Broadcasting Messages: 100% of mobile phones are covered by SMS without the need for any subscription procedures. Cell Broadcasting is the fastest way to reach devices that are compatible with it.
- The Genasys Mobile Application: to receive more in-depth warning content and to improve accessibility.
- Integration with our Genasys Long Range Acoustic Devices: increases alert coverage and acts as a contingency plan for the mobile based channels by ensuring that populations receive warnings even when mobile phones are switched off and/or if mobile networks are down.
- Integration of other communication channels which are compliant with the Common Alerting Protocol, CAP.
- Social Media, Massive Mail, Voice Calls, WhatsApp

End to End Solution

Genasys NEWS covers the whole value chain for a Public Warning System, fulfilling every need for both Emergency Agencies and Telcos:

Highly Customizable and Flexible

NEWS can be totally adapted to the emergency management command and control hierarchy of any country, being able to integrate the different administrative levels and divisions as well as include different types of users for the same hierarchical level.

Moreover, its internal structure allows the deployment of any requirements regarding the escalation of emergencies.

Easily Integrated into Current Emergency Agencies' SW Deployments

In order to achieve the most efficient deployment, Genasys NEWS can be integrated into existing emergency software stacks through various methods, minimizing the time and effort needed to define and execute emergency warning campaigns.

For more information please visit us our website https://eu.genasys.com and follow our social media at https://twitter.com/Genasyseu and https://www.linkedin.com/company/genasys/

Advanced Situational Awareness

Genasys NEWS makes the most out of the data collected from the various communication channels and, in combination with its broad experience in GIS and data analysis algorithms, provides essential information for first responders, helping them maintain control during any kind of crisis.

Fulfilling the new EECC Directive, Article 110

Genasys NEWS fulfills and exceeds all requirements put forth in Article 110 of the European Electronic Communications Code for a Reverse 112 system, allowing a quick and efficient deployment of this life saving system in the EU.



GeoComm

Caller Location

Mapping Next Gen Comms

GeoComm, provider of Public Safety Location Intelligence®, serves local, regional, statewide, and military agencies in forty-nine states, helping keep more than 100 million people safe.

Over the last 27 years, GeoComm's public safety GIS systems have routed emergency calls to the appropriate 9-1-1 call centers, mapped callers' locations on tactical emergency response mapping displays, and guided emergency responders to accident scenes on in-



vehicle mapping and navigation applications within police, fire, and ambulance vehicles. In addition, our statewide NG9-1-1 GIS project footprint has expanded to include 17 statewide projects across the country. Visit www.geocomm.com to learn more about GeoComm and our Public Safety Location Intelligence® offerings.



GINA Software s.r.o.

Automatic Vehicle Location

Disaster Management

Emergency Apps



Mapping

GINA Software is a technology company developing and providing a public safety and security management system called GINA. The company was established in 2010 and since then has become a specialist in provision of AVL systems and field response applications used by Public Safety Agencies and Law Enforcement Organizations. Our AVL is tailored to be used by both small organizations as well as large enterprises in need of monitoring and coordination of their staff and assets.



The goal of the company is to improve the efficiency of both daily and large-scale operations using technology to minimize the damages and to prevent casualties.

The ultimate tool for reaching this goal is an interactive map providing constant real-time visibility of all units from variety of sources including radios, smartphones, GSM or satellite trackers, UaVs and sensors combined in a single interface with advanced features such as history of movement, data visualization, automatic reporting, video surveillance and data analysis.

In addition to that, GINA has developed an in-vehicle public safety field response application featuring incident information, navigation, live data feeds, video streaming and field informational support.

GINA Tablet is a field response smart application designed in cooperation with first responders. Thanks to direct integration to local PSAP systems, GINA Tablet seamlessly communicates with operation centres and provides commanders with decision support tools including real-time updates. GINA Tablet is used during all phases of an incident response. Thanks to a built-in emergency navigation GINA Tablet navigates the first responders en route to the scene, provides live data feeds, video streaming and information support directly on scene and serves for reporting and evidence collection after the response. In combination with GINA Central all data captured during the incident can be used for further evaluation and educative purposes.

GINA Central is a modern tactical AVL software providing real-time information designed for management and coordination of emergency vehicles and first responders. GINA Central serves as a unified collaborative platform connecting various technologies such as radios, GSM and satellite trackers, smart applications, UaVs and sensors into one interface. GINA Central is complementary to primary PSAP systems and thanks to its tactical features GINA Central is an ideal tool for management of search and rescue missions, large scale incidents or during disaster relief operations.

GINA GO is a personal safety assistance mobile application designed for law enforcement officers or humanitarians operating in challenging environment available for iOS and Android mobile phones. GINA GO features movement tracking, emergency button with automatically recorded audio message increasing personal safety and allowing to send real-time data directly from field thanks to custom forms and questionnaires. GINA GO supports geo-fencing features ensuring that field staff avoids potentially dangerous areas and facilitates encrypted communication between the field staff and dispatchers. The app is designed for broadband networks and supports offline mode for proper work in areas with poor signal coverage.

GINA System offers:

- Vehicle and staff monitoring
- Field response
- Coordination
- Security Management
- Incident Management
- Data collection and Reporting
- Early warning system
- Video Surveillance

With key features such as:

- Real-time tracking
- Geo-fencing
- Collaborative mapping
- Points of interest
- Information support
- Navigation to scene
- Task planning
- Live streaming
- Reporting
- Data analysis

GINA System is a unique field response solution ready to be integrated with any local PSAP system to extend the operations to the field level. We save lives through technology.

For more information or integration requests please visit www.ginasystem.com



Google

Caller Location Cloud Services Emergency Call Routing

Accurate emergency location can be the difference between life and death. When emergency services get a call, they need to know the caller's location to send help and save lives. Today, over 80% of calls to emergency services come from mobile devices, but locating these callers can be difficult. In most countries, emergency location, if it exists, relies on cell tower location (which can have a radius of up



to several kilometers) or assisted GPS (which can fail indoors, and suffers from urban canyon, multi-path, and weather reception

Google created Android Emergency Location Service (ELS), as a supplemental service, and offers it free of charge to emergency services and public safety so first responders can act faster during an emergency. ELS uses the Android Fused Location Provider to quickly estimate more accurate emergency locations, both indoors and outdoors and transmits that location data -- together with any additional emergency, if appropriate -- to emergency services when a user calls or texts an emergency number

ELS is built into Google Play Services as part of the Android operating system, and works on over 99% of active Android devices (running Android OS version 4.4 and up).

Benefits

- ELS is not a mobile application and doesn't require any special hardware, downloads or updates.
- ELS is activated only when the user contacts emergency services.
- Location is computed on the Android device and sent to Emergency Services.
- Location data is sent via Data SMS or HTTP (per AML specifications) which are both open, OSagnostic protocols.

Google partners with mobile network operators, public safety vendors and government agencies responsible for public safety to deploy ELS. ELS is activated once a partner completed the testing process and is able to receive ELS data.

Google's goal is to make ELS available globally, to keep Android users safer and improve the state of emergency services around the world. For more information, contact android-emergency-location@google.com.



GridGears

Caller Location

Cloud Services

Emergency Call Routing

Next Gen Comms

Living in an Interconnected World

In today's interconnected world, data in public safety becomes a valuable asset to improve situational awareness and is key to fast and efficient emergency services. Next Generation standards, such as NG-911 and NG112 provide blueprints for modern, interconnected and IP-based architectures.



GridGears was founded in 2017 with the goal to contribute to those standards and enable better, more integrated and more efficient emergency services. We truly believe in standards and are deeply convinced that the aggregation of multiple services, provides much greater value than the sum of it's parts. This core value is even reflected in the company's name, where we see that the **Grid** - *the aggregation* - of multiple **Gears** - *the services* - drives the motor of innovation.

Digitalization of Emergency Services

Future emergency services need to keep up with and take advantage of the ever-growing digitalization. They must utilize this trend and its new possibilities to provide more accurate and efficient help to those in need. To achieve the best possible solution, these state of tomorrow systems need to interconnect with multiple components within and outside of the emergency network. Efficient and cost-effective exchangeability and interconnectivity between those components can only be gained by moving from proprietary interfaces to well defined and recognized standards.

Our Products

GridGears provides multiple Next Generation Core Components, including Emergency Call Routing Function (ECRF), Policy Routing Function (PRF), Forest Guide and Location Information Service (LIS) with Advanced Mobile Location integration. Our products support on-premise, cloud-based or even hybrid deployment options to allow easy and cost-efficient integration into existing systems. The interfaces and protocols adhere to the standard and were evaluated during multiple ETSI Plugtests from GridGears' earliest beginnings. GridGears' products were also an essential part of the *Cross-border ESInet and LoST Hierarchy Emergency Services Testing* (CELESTE) consortium in EENA's Next Generation 112 Project.

Future Emergency Services

Technology and their level of integration and acceptance is moving at an enormous speed. Nobody can predicate how we will communicate and interact with technology in the future. Therefore, it is even more important to establish a stable foundation for future innovations in public safety. At GridGears we believe that NG112 and NG9-1-1 are the foundation for integrated, multi-vendor and cross-border solutions and we are strongly committed provide standard conform solutions, which enable the best possible emergency services, whenever and wherever you are.



Heartrunner Sweden AB

AED

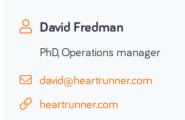
Emergency Apps

Interoperability Solutions

Public Warning

Resource Management

Heartrunner Sweden, established in its current form in 2016, was founded by resuscitation experts, researchers and techies with a strong belief in the power of citizen responders. The Heartrunner system is a reliable supply-and-demand system that recruit citizen responders in case of out-of-hospital cardiac arrest. We started in 2010 and since 2014 we run on the current app platform. Over 24 000 alerts on suspected cardiac arrest have been sent since the start.



We know that citizen responders can be a valuable complement to ambulance and other resources in the first critical minutes of a cardiac arrest.

Citizen responders who downloaded our app can be alerted when they are nearby a victim, and perform CPR and use an AED to increase the chance of survival. Our system locates both citizen responders and AEDs nearby the victim.

The Heartrunner system is currently active in Sweden and Denmark with over 180 000 users ready to save lives. If your region or country want to benefit from this system it's easy to configure it for your technical needs and policy for distribution, i.e., you can let anyone who have CPR skills join, or you can select specified individuals within your organization.

Our system can be incorporated with any CAD software and alerts are sent through an API to our MissionServer. This is a hassle-free solution with no build in buttons or switches. It's a redundant system built on Microsoft Azure servers and there are no bottlenecks in number of alerts handled or number of citizen responders in the system. The app is designed as a white label solution, to be branded in compliance with regional or national concepts.

The MissionServer handle the logistics in selecting candidates to alert nearby the location of a suspected cardiac arrest. We can easily incorporate data from a national or regional AED network in the alerts to further increase the effect on survival.

The Heartrunner system is developed in a research environment and we currently support research at Karolinska Institutet, KTH, Royal Institute of Technology, Stockholm School of Economics, Linköping University, Linnæus University and Copenhagen university. We can support your region regarding research and evaluation of the effect of citizen responders in case of cardiac arrest.

We provide real-time feedback to the region in terms of number of volunteers and their actions and you can quickly see the benefit in terms of increasing rate of bystander CPR and defibrillation.

In a Swedish randomized controlled trial, the bystander CPR rate was increased by 32% with citizen responders first on scene.

https://www.nejm.org/doi/full/10.1056/NEJMoa1406038

In 2020 from Copenhagen, a threefold increase of bystander defibrillation over 12 months was shown in OHCA cases where citizen responders arrived before the ambulance.

https://www.jacc.org/doi/full/10.1016/j.jacc.2020.04.073

Join us and make sure that your region makes the most use of the power of citizen responders. Let CPR trained citizens and publicly available AEDs come to use!

Together we save lives!



Helmut Wittmann Consulting

Disaster Management

eCall

GIS

Next Gen Comms

Specialised Consultancy

Helmut Wittmann Consulting entirely focuses on the support of emergency services organizations and public authorities to execute their strategies for command control centre solutions and for crisis and disaster management. Due to the founder's unique competencies and experience, the emergency communications requirements between citizens and emergency services organizations, like emergency number (112/110/911...) implementations and emerging emergency communication channels, build a key component in the service portfolio.



The ever-accelerating development of innovative technologies such as broadband mobile networks and smart phones, coupled with the implementation of EU regulations, directives and delegated acts, calls for the continued development of emergency management systems by authorities, agencies and emergency services organizations. To make matters even more challenging, social change as an overarching issue impacts the interface and the collaboration between citizens and the public authorities.

Helmut Wittmann Consulting offers emergency service organizations and authorities superior public safety consulting services that covers the lifecycle from the early knowledge of new technologies and regulations to the final project implementation in the operational environment - end-to-end.

Needs assessment to determine improvement gaps and to foster project and program decisions:

- Customer needs assessment and analysis, as-is analysis
- Conducting surveys, preliminary studies, and high-level concepts
- Market and technology analysis
- Proof-of-Concept (PoC)

Requirements management to ensure conformity with legal, technology, and process requirements:

- Customer / system requirement collection and evaluation
- Preparation of requirements specifications and system specifications
- Execution of cost / benefit analysis and feasibility studies
- Vendor and technology selection support

Implementation and rollout support services to reduce risk of implementation:

- Project management and controlling
- Feature and vendor coordination
- Migration and rollout concepts
- Test management including regression and conformance testing

Communications and reflection to evaluate the operational impact and gain further insights into the improvement potential:

- User survey and impact assessment
- Identification of improvement potentials
- Preparation and execution of publications and presentations (decision support, training, conferences)



Hexagon's Safety, Infrastructure & Geospatial division

Artificial Intelligence

CAD

Cloud Services

Disaster Management

Information Analytics

Public safety and security organizations need to achieve and maintain high levels of service, while managing the expectations of citizens, the mandates of public officials and regulators, and the impacts of new forms of technology, including AI, social media and mobile communications. Public safety agencies need the right information at the right time to plan and deliver vital services. However, legacy technologies, shrinking budgets and staffing



6 hexagonsafetyinfrastructure.com

pressures, a lack of technical resources, and resistance to change create challenges for organizations.

The global leader in public safety and security solutions, Hexagon's Safety, Infrastructure & Geospatial division can help. By improving the quality, accuracy, and availability of critical information, our integrated solutions increase performance and productivity, while reducing the total cost of ownership for mission-critical IT investments and the staff that use them.

Global Leader – Hexagon has an extensive global reach, providing advantages to customers in terms of our domain knowledge, lessons learned, and best practices. We are the market leader in public safety and security and the only truly global supplier of these solutions.

Trusted Partner – Our solutions are trusted to meet the needs of mission-critical public safety operations for more than 2,500 agencies in over 30 countries. With 350+ installations around the world, Hexagon's Safety, Infrastructure & Geospatial division helps protect 1 in 9 people around the world.

Proven Innovator – We have pioneered public safety and security innovation for almost 35 years. We are responsive to the changing needs of safety and security operations.

Reliable, scalable, and interoperable, our solutions enhance capabilities, improve agility, mitigate risk, and reduce the total cost of ownership for enterprise systems. In the operations center or in the field, on-premises or in the cloud, at a workstation or through a mobile app, our solutions deliver greater situational awareness and better results.

Hexagon's next-generation public safety product portfolio

Hexagon next-generation software portfolio **HxGN OnCall** offering flexible, out-of-the-box, capabilities in a browser.

The HxGN OnCall portfolio helps public safety agencies of all sizes be more agile and resilient through modernized capabilities spanning call-taking and dispatch, records, analytics, major event management, and mobility.

Deployed on-premises, customer-hosted, or Software as a Service (SaaS) in the cloud, HxGN OnCall helps organizations deploy these capabilities more easily anywhere across their ICT estate so they can make more informed decisions; easily connect devices, systems, and people; and harness next-generation technology to better meet future challenges. A redesigned User Experience provides streamlined workflows allowing agencies to deliver the right tools and information more easily, increasing flexibility, and adapting more quickly and easily to changing needs and technology.

Accessed via browsers and mobile apps, HxGN OnCall products are easily configurable, allowing agencies to adapt the software to their unique and changing needs.

HxGN OnCall Dispatch – Agile next-gen call-taking and computer-aided dispatch (CAD) capabilities that link callers, dispatchers, managers, and field officers for faster, more effective response. HxGN OnCall Dispatch can help your agency to improve multi-agency collaboration, support agile organizations and sustainable IT, deliver better service and return on investment, and promote reporting, transparency, and accountability.

HxGN OnCall Dispatch | Smart Advisor – Leveraging artificial intelligence (AI), machine learning (ML), and live data directly within the dispatch client, HxGN OnCall Dispatch | Smart Advisor provides real-time actionable insights during complex emergencies, from large, rapid-onset events to repeat offenses and linked incidents. It empowers decision-makers to intervene earlier and more effectively to improve outcomes, speed recovery, and reduce impacts on communities, levels of service, and personnel.

Part of the HxGN OnCall Dispatch product suite, Smart Advisor utilizes a set of autonomous, analytical software agents within HxGN OnCall Dispatch | Essentials, Advantage, Viewer, and Mobile Unit.

HxGN OnCall Analytics – A single source of organizational data featuring interactive reports and dashboards that all can use for evidence-based analysis and communications.

HxGN OnCall's field mobility solutions – Task-focused apps that connect first responders with dispatch and records capabilities to ensure safe, efficient operations.

HxGN OnCall Planning & Response – Web-based application for managing major incidents and events that integrates and coordinates resources, procedures, and communications for safe, effective action.

The HxGN OnCall portfolio is the perfect foundation for building safer, smarter cities. Learn more at https://hexagonsi.com/hxgn-oncall-portfolio

Hexagon's next-gen PSIM solution

HxGN OnCall Security | Guardian is a suite of tools that integrates data from alarms, sensors, IoT and intrusion devices, and video data to provide unprecedented situational awareness. This next-generation physical security information management (PSIM) solution is for monitoring, managing, and responding to real-time incidents.

HxGN OnCall Security | Guardian can help integrate data from disparate systems to provide unprecedented situational awareness, reduce the lag time between threat identification and response, and to centralize and coordinate physical security operations across geographically dispersed organizations.

This solution goes beyond basic alarm monitoring and retroactive forensic response. It offers one common operating picture for continuous, real-time assessment across all events, applies broader and more robust detection methods, and integrates with computer-aided dispatch (CAD) solutions for immediate response.

Hexagon's brand-new cloud-based workspace for citywide and intraregional collaboration

HxGN Connect, a SaaS workspace for citywide and intraregional collaboration brings public safety, transportation, utilities and other related organizations together seamlessly to share data and coordinate action for ad-hoc, routine and emergency situations. While users can visualize people, places and activities, send messages and assign tasks to each other, all participants retain full ownership and control of their own data – nothing is stored in a central repository.

Hosted in Microsoft Azure, HxGN Connect provides a networked workspace and unified view of information within and between different entities. This solution is easily implemented and scaled. Participants can actively collaborate and securely share data as events unfold, overcoming the technical and political barriers that often result in missed opportunities, conflicting actions, errors and delays.

Incident & Resource Management

Our incident management solutions coordinate critical information and resources and track developing situations in real time. Through immediate and complete information about events and units, our solutions help police agencies, fire and rescue services, and emergency medical services respond to and resolve incidents with speed and efficiency.

With our computer-aided dispatch system, call-takers, dispatchers, and supervisors benefit from streamlined tools to field calls, create and update events, and manage resources, including multiple agencies and jurisdictions. Field personnel increase productivity through mobile applications and data, including access to pre-incident plans.

Our police, ambulance, and fire & rescue CAD supports agency-specific as well as cross-agency workflows and enables key capabilities.

Our police solution includes unit and personnel recommendations and records and criminal database queries.

Our ambulance and fire & rescue solutions include response plan creation, unit recommendations, incident perimeters, and hospital routing. Interfaces to station alerting, printing, and paging systems enable quicker turnout, while integration resource optimization systems streamline operations.

Whether in the communications center, the station, en route, or on scene, police, law enforcement, fire and rescue personnel can access actionable information whenever and wherever needed.

Intelligence-led Analytics & Reporting

Proactive law enforcement agencies apply data analytics to problem-solving for intelligence-led policing. Our police analytics software suite leverages computer-aided dispatch systems, records management systems, and other data sources for evidence-based decisions that improve operational efficiency, optimize resources, and reduce crime.

Our business intelligence software helps agencies mine, monitor, and analyze massive amounts of operational data and report the results for better resource planning and deployment. Our crime and incident analysis and mapping software enables agencies to visualize and analyze information for crime prevention, post-incident analysis, and more.

Hexagon's recently launched virtual user assistance, HxGN OnCall Dispatch | Smart Advisor helps each role in the comms center see the unseen. Call-takers and dispatchers are expected to handle complex, unfolding emergencies at a rapid pace. The nonstop influx of data is nearly impossible to sift through and categorize manually. These challenges cause information gaps and can lead to an overburdened workforce missing crucial connections. Modern computer-aided dispatch tools, especially those leveraging artificial intelligence (AI) and machine learning, help personnel identify hard-to-spot, complex emergencies earlier and make connections between seemingly unrelated events. Hexagon's Smart Advisor – the industry's first assistive AI technology designed to work within dispatch software to help public safety agencies detect and respond to complex emergencies sooner. Assistive AI helps comms centers run smoother with timelier response and delivers a clearer picture of the situation for informed decision-making and a staff empowered to perform at a higher standard.

Hexagon's tools for real-time and historic reporting and analysis help police increase intelligence, target problem areas, and improve public safety.

Resource Allocation & Planning

Fire and rescue services must meet response time standards and monitor and measure performance. Our fire service analytics software leverages computer-aided dispatch systems, records management systems, and other data sources for better reporting, analysis, and evidence-based decision-making.

Our business intelligence software helps agencies mine, monitor, and analyze massive amounts of incident and response data and report the results for resource allocation and growth planning. Our incident analysis and mapping software helps agencies visualize and analyze information for location intelligence. With tools for real-time and historic reporting and analysis, we help fire and rescue services identify trends and determine personnel, apparatus, and station needs.

Crisis Management & Emergency Operations

Natural disasters and large-scale public events create challenges far beyond the scope of day-to-day incidents. Our solutions provide emergency operations centers (EOCs) and multiple organizations with reliable information, clear and unambiguous communications, and tools to adapt to rapidly changing situations.

With our computer-aided dispatch system, agencies can create special zones, implement predefined standard operating procedures, and operate additional control rooms, including remote or mobile command centers. With our major events and geospatial software, emergency operations centers, command staff, and multiple, diverse organizations can collaborate, sharing and accessing critical information during planning, response, and recovery.



Huawei

Big Data Clo

Cloud Services

Emergency Call Management

Multimedia Comms

Network Hardware

Huawei is a leading global information and communications technology (ICT) solutions provider. Driven by responsible operations, ongoing innovation, and open collaboration, we have established a competitive ICT portfolio of end-to-end solutions in telecom and enterprise networks, devices, and cloud computing. Our ICT solutions, products, and services are used in more than 170 countries and regions, serving over one-third of the world's population. With more than 170,000





S e.huawei.com/en

employees, Huawei is committed to enabling the future information society, and building a Better Connected World

By leveraging our strong R&D capabilities, comprehensive technical expertise, and continuous technical innovations, Huawei is committed to building an open, flexible, resilient, and secure platform in the enterprise market to orchestrate a sustainable, multi-win ecosystem. Huawei provides a series of C-C4ISR Safe City solutions that support the collaborative public safety vision to help public safety customers build digital platforms and improve inter-agency and community collaboration. Effective prevention, accurate resource deployment, fast analysis and decision, visual command, and efficient collaboration between multiple departments help governments reduce crime rates, improve crisis prevention and emergency response capabilities, and ensure safe and predictable security.

Huawei's public safety solutions are now serving more than 700 cities in over 100 countries and regions, helping governments accelerate digital transformation of public safety. Huawei's public safety solutions are now serving more than 700 cities in over 100 countries and regions, helping governments accelerate digital transformation of public safety.

Huawei public safety solutions overview is as follows:

Building the world's first visual and converged command system

1. Visualization: visual on-site conditions and resources (police and emergency resources); unified command on the same GIS map

2. Convergence: converged communication methods – seamless video (video surveillance, video conferencing, mobile phones, and trunking terminals), voice (eLTE broadband trunking, TETRA narrowband trunking, and the Internet), and data (GIS and SMS) interaction across terminals; collaborative management of a single incident across agencies

Creating awareness, informative analysis, and diverse warning methods, enabling comprehensive security protection

- 1. Awareness: Huawei's all-scenario access network implements data backhaul from various sensors
- **2. Analysis**: the collaboration among open smart cameras, IoT gateways, and video analysis platform featuring device-pipe-cloud incorporates industry-leading intelligent analysis algorithms
- 3. Warning: Comprehensive warning platform intelligently links massive numbers of sensors

Industry's unique distributed cache technology used in high-performance computing, setting up a leading cross-regional, multi-level shared video cloud platform that enables leads to be identified within seconds

1. Cross-regional, multi-level sharing: enables tens of thousands of users (such as police officers, government officials, and first respondents) to watch on-site videos concurrently

Establishing an advanced broadband trunking system that allows dedicated trunking and real-time video dispatching on the same network

- **1. Dedicated trunking**: TCCA mission-critical standards, industrial-level design, IP67 protection, Ex ic IIC T4 explosion-proof certification, -40°C to +65°C working environment for CPE
- **2. Real-time video dispatching**: a single base station supports the upload and distribution of 27 video channels
- **3. Unified network**: one eLTE network replaces two networks (TETRA narrowband trunking and broadband access)
- 4. Supports multi-platform mobile devices to manage and respond to emergencies anytime, anywhere

Providing local delivery and a maintenance platform across more than 170 countries and regions

- **1. Global delivery and maintenance platform**: 3 global and 9 regional Technical Assistance Centers (TACs), as well as 45 logistics and spare parts centers, implementing delivery and maintenance across 170+ countries and regions
- **2. Rich partner resources**: 100+ ICT partners, 550+ certified service partners, and 120+ authorized service partners

Success Stories

1. Safe City Project for Kenya

This project created an all-in-one Safe City solution that combines call taking and dispatching, eLTE broadband trunking, video surveillance, and intelligent analysis (license plate recognition and traffic violation detection). Devices were provided to more than 10,000 police officers, enabling full visual command. On November 26, 2015, the project ensured security during Pope Francis' visit to Kenya.

2. Thailand RTP emergency communications

Huawei built the world's first 3GPP-based broadband trunking emergency communications system, with more than 45,000 terminals. The system supports the next-generation of visual command and surveillance, promptly shares the dispatching and policing affairs information, and leverages various mobile apps to improve law enforcement efficiency. After its successful deployment, the system provided multimedia communications support in rescuing the Thailand 18 youth soccer team members who were trapped in a cave, and safeguarded Rama X, the royal family, and governmental leaders in the Bike Un Ai Rak event.

For more information about Huawei's Safe City solutions, please visit the official website: http://e.huawei.com/en/solutions/industries/public-safety/safe-city/safe-city



Hytera Communications Corporation Limited

CAD

Control Room Integration

Emergency Call Management

Multimedia Comms

Radio Solutions

Hytera Communications Corporation Limited (SZSE: 002583) is a leading global provider of professional communications technologies and solutions. With voice, video and data capabilities, we provide faster, safer, and more versatile connectivity for business and mission critical users. We enable our customers to achieve more in both daily operations and emergency response to make the world more efficient and safer.



Hytera is committed to innovation and provides user-orientated critical communication products. Fully understanding the communication challenges the industrial users are facing in Public Safety, Energy, Transportation, Utilities, Commercial and other industry verticals, Hytera continuously invests in technology development and application innovation, and is committed to promoting most open communication standards from narrowband to broadband, including TETRA, DMR, PDT and LTE.

Across multiple technologies and standards, Hytera provides feature-rich, multi-media broadband applications, while ensuring reliable mission critical voice communications through narrowband technologies, to help customers be their best by improving their situational awareness, fostering multi-agent collaboration, and enhancing decision-making process.

Hytera has more than 100 offices worldwide and more than 40% of our workforce is engaged in engineering, research and development. There are 10 global innovation and development centers located in China, Germany, UK, Spain and Canada. The centers collaborate to keep Hytera at the forefront of the communications industry and are dedicated to developing leading technologies into solutions that our customers can count on to meet their real time communications challenges. With its extensive network of dealers and partners, Hytera is proudly serving customers in over 120 countries and regions around the world.

Hytera is committed to delivering reliable products with a high standard of quality. Hytera's smart factory in Shenzhen incorporates intelligent warehousing and logistics systems. Another important part of the global supply chain is the manufacturing center in Zaragoza, Spain, which focuses on customizing our products to meet the specific needs of our European and American customers.

Hytera also incorporates many leading sub-brands within the industry. Sepura, headquartered in Cambridge, UK, manufactures a leading brand of TETRA terminal products in Europe; Teltronic, headquartered in Zaragoza, Spain, is famous for developing TETRA systems in the rail transit industry; Norsat, headquartered in Vancouver, Canada, is the world's leading provider of professional satellite communications equipment and solutions; Sinclair, headquartered in Toronto, Canada, is the world's leading smart antenna brand; and HYT provides a brand of analog products under the Hytera umbrella.

Public Safety Command and Dispatch

For police, fire, emergency and other public safety management departments, provide a full range of products and solutions such as intelligent response and handling, visual command and dispatch, speed 110, major event security, integrated dispatch console, and integrated communication support system, covering the entire business process of the command center and Application scenarios, and provide the overall construction plan of the command center.

Unified Communication and Dispatch

As the world becomes more connected than ever before, requirements on seamless communication and instant coordination are growing. Leveraging years of successful experiences in the Private Mobile Radio (PMR) network, Hytera has launched self-developed, industry-leading multimedia unified communication platforms. Empower your dispatcher to communicate across multiple standards and multiple PMR and public systems, including DMR systems, TETRA systems, and PSTN systems, and deliver a wide range of audio, video, and data services. The platform is thoughtfully designed to ensure that your work force across radios and systems are interconnected and enable your dispatchers to coordinate efficiently. It is a wise choice for daily command and control, emergency command and control, and security protection for major events.



IES Solutions

Cloud Services

Interoperability Solutions

Resource Managemen

IES Intelligence for Environment & Security – *IES Solutions (IES)* is an Italian SME, based in Rome, Catania and Oxford, that designs, develops and delivers services and technologies for the Environment and for the Safety and Security of citizens.

The Company has a proven expertise in turning research into innovative solutions; thanks to the participation in several EC-funded projects, IES has gained a significant expertise in implementing solutions and evaluating the impact of ICT solutions in many different domains where



evaluating the impact of ICT solutions in many different domains where data gathering, data interoperability, communication, alerting and an efficient visualization of information are key.

IES strongly believes in the power of interoperability for improving communication between authorities and citizens, particularly during emergencies. Pursuing this vision, IES has developed a suite of products called JIXEL, which is based on the CAP (Common Alerting Protocol), an XML data format originally developed by the OASIS Consortium. CAP has been adopted by the Italian Ministry of Interior as Italian national standard for exchanging data and ensuring interoperability between Emergency Control Rooms.

Jixel is a suite of Cloud solutions for the management of both daily business and emergencies. Jixel implements an intuitive Command and Control System, which allows a standard-based seamless sharing of information between actors, being them on the field or in Control Rooms.

Jixel offers real-time information using:

- Geography, localisation, dynamic maps
- Information about personnel and resources within the area of the event or approaching it, including their status and assigned task.
- Contextual information and potential risks in the area impacted by the event

Jixel automatically adapts to the data communication available in the area of the event, dynamically varying the in-transit data according to the available bandwidth. Thanks to a set of apps, Jixel can use videos created by both citizens and professionals using their smartphones.

Jixel is a complete web-based virtual Control Room, featuring tools for the visualisation of information, for data sharing and data management; it can be used on every class of devices, from PCs to smartphones.

Jixel aggregates information from on-the-field sensors, Open Data, Social Media and dedicated apps: for all practicual purposes, it makes Big Data integrated in the framework **Smart Cities** and Smart Government.

Jixel is applied in 7 different solutions, specifically designed for Cities, Regions, Agencies, Groups, Companies and System Integrators, plus a specific solution developed for the eCall domain.

The platform implements all the needed information flows with four specialised products: between organisations (SHARE), within the same organisation (MANAGER), from sensors, apps and open data (AGGREGATOR) and with citizens (ALERTER).

JIXEL-ALERTER can also be configured for mass warning via the radio channel: in combination with the JIXEL-RADIO unit, it empowers the direct audio broadcasting of CAP alerts as sent by the alerting authority.

JIXEL also covers the Social Media domain with specific modules for information gathering, sentiment analysis as well as alerting.

IES supplied JIXEL to the Italian Ministry of the Interior – Fire Fighters Dept., which is using it all over Italy since 2014; the system currently covers 97% of the Italian Provinces and 98% of the population (May 2017).

In 2016, JIXEL has been supplied to the Regional Civil Protection of Sicily (Italy) implementing the GECoS system for emergency management and interaction with volunteers. Citizens can also be part of GECoS via the "Anch'ioSegnalo" App by sending alerts directly to the control room.

IES also provides services based on the analysis of EO-images for the assessment of the presence of asbestos in buildings, for the identification of burnt areas and for the assessment of susceptivity to fire.

Since 2017, IES is involved in a DG-ECHO project called ALPDIRIS, based on communication interoperability, which aims at improving cross-border mountain search and rescue between Italy and Slovenia.

IES has developed a CAP-based standard solution for the implementation of information exchange between PSAPs (Public Safety Answering Points) and with TPSPs (Third Party Service Providers) under the eCall initiative (I_HeERO project).

IES is also currently involved in a feasibility study on a Galileo-based population alerting service.

IES is member of the Advisory Board of EENA (European Emergency Number Association) and founder member of PSCE (Public Safety Communication Europe). It is an active member of the task-force of B-APCO for the development of the MAIT (Multi Agency Incident Transfer) protocol and is on boardnthe Technical Committee of the OASIS (Organization for the Advancement of Structured Information Standards) Emergency Management standardization group.



IHM

CAD Control Room Integration

Emergency Call Management

Radio Solutions

Voice Comms

IHM A/S is a Danish provider of intelligent solutions for emergency calls since 1982. Our solution for emergency control rooms and radio communication covers almost 80 % of the Danish market. For the Scandinavian market we provide OEM solutions primarily.

Our state-of-the-art solutions manage and streamlines mission critical operations at alarm centres and control rooms. Our systems are certified for SINE, RAKEL and Nødnett security systems at the Danish, Swedish and Norwegian market.



The IHM AMS platform manages critical alarm tasks and resources automatically, providing a full picture of the incidents, whether it is a fire alarm or technical alarm.

The system automatically calls out the right, and sufficient, crew and equipment, based on risk-based dimensioning. Simple controls give the on-duty officer a clear picture of the accident, enabling staff to focus quickly and effectively on organizing and coordinating operations at the incident site.

The system also ensures automatic registration and archiving of incidents to meet requirements for documentation and statistics.

Your emergency operation center handle:

- Receipt of emergency response and automatic fire alarms via the alarm network
- Automatic or manual crew call-out
- Pagers and/or TETRA terminals with call-out
- Automatic, intelligent call-out, optimising call-out based on risk-based dimensioning
- Automatic logging of calls
- Two-way communication with groups, and one-to-one communication
- Service agreement with 24/7/365 support

IHM CAD and IHM GIS can be added to the solution, including the following functions:

- Status registration (TETRA)
- Visual summary of resources crew and equipment (TETRA)
- Visual summary of the geographical position of alarms
- Compatibility with TETRA, coordination of operations with ambulances and police
- Video surveillance
- Redundancy (backup) with double server and duplicated system with reciprocal updating

IHM offers a range of solutions, both large and small, and all can be scaled up or down according to your specific requirements. Our solutions include IHM Communications Centre, (Integrated Control room System, ICS), IHM CAD (Computer Aided Dispatch), and IHM AMS (Alarm Monitoring Software).

The following functions can be added to the standard solution for fire and rescue:

- Anti-theft alarms
- Emergency calls, for example to domiciliary care services
- Personal attack alarms, for example for traffic wardens
- Lift alarms
- Technical alarms, AIA (installations and pumps)
- Call-outs via LTE pager (IHM PAM)



IMA

eCall

Emergency Call Routing

Emergency Call Management

Telemedicine

Third Party Services

The IMA Group is an international assistance company which has developed a 20-year experience as TPS e-Call in western Europe with a close relationship with PSAP organizations. Since 2017 the SNSA and IMA have been designated PSAP eCall for the handling of 112 eCall in France in cooperation with emergency services and Public authorities.



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S imagroupe.eu/en/index.php

The IMA Group designs, assembles and implements assistance solutions and services adapted to its shareholders and customers. We are committed to providing help, support, and guidance 24 hours a day, 7 days a week, anywhere in the world. Our talented people are hard at work every day in four areas of expertise: Mobility, Home, Wellness, and Legal.

We devote all our attention to our shareholders and their beneficiaries as well as our partners and customers whenever they need it. In 2021, the Group generated a turnover of €872 million. It covers over 45 million beneficiaries and has more than 4,900 employees.



Incendium

Cloud Services

Control Room Integration

Drones

Recording Solutions

Telecommunications

Live stream video for emergency services

Incendium has been working with live stream video for emergency services for a whole decade, and we are now the preferred supplier to emergency call centres in Scandinavia.



We've developed IncidentShare SMS-to-Video, which gives the emergency call centre the possibility of sending a text message with a link to the caller and then receiving video images directly from the caller's phone. A live video feed is thus created between the caller and the first responders within a few seconds.

Our software has been developed in close cooperation with emergency call centres, fire services and police forces, and we now have a product that is second to none in terms of providing value for first responders.

Come to stand no.15 at EENA 2022 to see our solution in action and try it out on your own device: We will show you how, together, we can create greater security for citizens and employees. We believe that by challenging the way we communicate, we can create greater common understanding and security in everyday life.

Fast, easy add-on for emergency calls

Our solution is really extremely simple. It's called IncidentShare SMS-to-Video, and it is entirely browser-based, with an intuitive structure. In practice, this means that the set-up can be in operation for you within a few days. IncidentShare rapidly establishes a live video feed directly to first responders (ambulances, paramedics, etc.), who can thereby see the situation with their own eyes. This allows them to mentally prepare for the task they have been called out for, and to provide correct advice on the basis of the live video before they reach the site of the accident.

The proven solution

IncidentShare is the result of a comprehensive collaboration with leading emergency services in Scandinavia since 2012, through which we have delivered live streaming solutions. Our team of dedicated in-house developers is continuously improving the solution in close dialogue with our users.

The software is scalable and may be used as it is without further adjustment, but it can also work with existing setups. It comes with built-in integration for a variety of VMS industry standard systems. If this is not sufficient we also have a strong API, so there is great integration flexibility.

All of the communication takes place via secure, lightning-fast encrypted channels. The solution can be run at your own premises, or via our secure hosting environment in Frankfurt or Denmark. In other words, you can be completely secure with regard to personal data.

Video saves lives!

The average duration of a video call to the emergency call centres is three minutes – and that has proved enough to save lives. We supply a software solution that our partners describe as value-adding for their work.

Not only does IncidentShare help to save lives – it also makes it possible to prioritise resources. Emergency call operators find that video calls can change their perception of the situation, and have led to scaling the operations down or up. As a result, ambulances and rescue helicopters can be sent to where they are most needed.

Call centre decisions can be made on a more secure basis when video is available from the caller, and this improves the working environment. SMS-to-Video provides a simple, fast and effective way to obtain an overview and alleviate a stressful situation, and it helps to reassure the caller when a professional is watching along with them.

Come and say hi at EENA 2022

We're looking forward to meeting you at EENA 2022 in Marseilles. You can find us at stand 15, and will be speaking on track 3. Let's get operational!

Incendium has two offices in Denmark and has been growing continuously since 2013 – for the past three years with an average revenue increase of 50%. We stand proud as the market leader in Scandinavia.



InnoSeven Technologies

Project Management

Public Safety

Specialised Consultancy

JSC Innoseven technologies provides a wide range of services related to Public Safety Answering Points (PSAPs) and Call/Contact centers starting from feasibility studies, design and the technical solution implementation of the centers, organizational matters of such centers backing it up with the preparation of detailed technical, functional requirements and specifications and further support.



Innoseven technologies has deep experience in design of organizational processes, regulatory and legislative environment of PSAPs, interoperability of emergency handling agencies and is providing consulting services to PSAP organizations for implementation of the quality standards and processes based on best practices of the emergency handling field, EENA and ISO 9001 standards. Innoseven technologies is an active member of the EENA organization gaining up-to-date knowledge and experience from the conferences, official publications and discussions with other members, partners and PSAP organizations.

Specialists of Innoseven technologies have gained huge experience in building IT solutions for Call/ Contact and Emergency Response Centers (PSAPs) during long years in this industry from 2001. Specialists of Innoseven technologies have been managing project implementations, providing technical designs and work projects, installing and configuring various related equipment, software components and solutions, performing administrator and end-user trainings, performing solution testing and acceptance. Deep experience has been gained for the specification, design and implementation of various integration interfaces with other emergency and non-emergency agencies.

During the projects in Lithuania specialists of Innoseven technologies have gained huge experience in implementation of recent PSAP related services such as eCall services, AML, caller location based on Timing Advance and Round Trip Time methods and others. Innoseven technologies is providing support and maintenance of the implemented systems in 24x7x365 mode with high SLA commitment (less than 4 hours back-to-service).

We are sales and service partners for Siemens SBT, Unify and Retia. Nevertheless our experience and knowledge is not related to the respective solutions only and Innoseven technologies is capable in providing services for a wide variety of different solutions from different vendors.



Innovative

Automatic Vehicle Location

CAD

Caller Location

Control Room Integration eCall

Innovative Business Software A/S is a Danish company, which for more than 35 years, has built state-of-the-art incident management software solutions that have helped manage and streamline the most critical security operations at alarm receiving centres and control rooms, all over the world.



Our versatile Innovative Security Manager™ platform handles critical security tasks, incidents and resources, providing a complete operational picture of the current security situation in real-time. In addition, ISM interfaces to multiple disparate systems, such as video management systems (vendorindependent), automatic fire alarms and access control systems and presents all alarms, incidents and tasks in the same user interface.

Innovative Security Manager™ key features:

- Alarm handling and incident management
- Task and resource management, including personnel app for task management
- Video integration and interactive floorplans
- Real-time overview of the security situation and indoors positioning
- Interactive map to locate alarms, vehicles and personnel
- Emergency management and coordination in real-time
- Documentation, reporting and big data for enhanced planning

Our customers include police forces, fire departments, 112, airports, private security companies, university campuses, hospitals, military and industrial facilities.



Intersec

Big Data

Caller Location

Emergency Apps

Emergency Call Routing

Public Warning

Founded in 2004, **Intersec** is a global pioneer in mobile data and location intelligence solutions, locating, tracking, and mapping 850 million mobile devices 24/7 for 65 customers in 45 countries. Its fast data platform allows public authorities and telecommunication companies to turn massive amounts of cellular data into actionable insights, in real-time.



GeoSafe by Intersec is a rich portfolio of public safety and mission-critical ready-made solutions, including:

- 1. Public warning system (PWS) and crisis management
- 2. Emergency calls location and routing
- 3. Lawful access to locations (LALS) for LEAs

Leading PWS provider in the European Union

- Leading PWS provider in the European Union, covering 28% of the EU population (France, Germany, Portugal, Croatia)
- A strong proponent of combining Cell Broadcast and Location-Based SMS to communicate much more effectively with the population and stay ahead of the crisis management
- A fully integrated and modular national public warning architecture, at both governments and mobile carriers levels
- Future-proof and scalable platform, ready to integrate Galileo EWS
- Tailored for both on-premises deployments and Cloud/SaaS model

"We were attracted by the completeness of Intersec's solution, by its experience in delivering messages on a very large scale depending on the real-time location of recipients, and by the willingness of its teams to keep this solution at the cutting edge of technology over the years to come." - Romain Moutard, Program Director, French Ministry of the Interior

Emergency calls: the most advanced positioning engine on the market

- To deliver the best accuracy to PSAPs, Intersec orchestrates its extensive stack of location technologies including GMLC, SMLC, SAS, e-SMLC, LMF, real-time passive geolocation, LRF/RDF, CLF, and AML Gateway.
- Our emergency call location solution combines multidimensional cellular and non-cellular locating capabilities to provide emergency services and first responders with critical, up-to-date information, allowing them to save more lives. It complements the AML technology in any case, reducing blind spots.
- Intersec has been recognized by Gartner in 2022 as a key location intelligence player

Intersec at a glance:

- Founded in 2004
- 150 employees around the world
- 18 years of telco experience
- 850 million mobile devices located 24/7
- 65 customers in 45 countries
- The most comprehensive set of location techniques on the market
- Privacy by design
- Simplicity, reliability, relevancy
- Modular, interoperable, and highly scalable solutions
- 5G-ready platform powered by AI and fast data
- Network-vendor agnostic
- Compatible with any cellular network design



Intrado

Caller Location

Emergency Apps

Emergency Call Routing

Emergency Call Management

Interoperability Solutions

Intrado is an innovative, cloud-based, global technology partner to clients around the world. The company's Life & Safety division is a leading provider of emergency communications technology solutions for traditional phone companies, wireless carriers, satellite and cable operators, VoIP providers, and public safety and government agencies. Backed by over 40 years of



Sr. Vice President / General Manager, Intrado Life & Safety, Carrier Services

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world-class network engineering focused on the needs of public safety, Intrado manages the entire emergency response continuum through data management, reliable networks and a deep understanding of public and personal safety emergency response protocols.

Intrado connects people to protection and security by enabling organizations or agencies to locate, route, transport and deliver emergency communications to help save lives. We develop, implement and support all aspects of emergency communications network and solutions, facilitating more than 420 million emergency transactions each year.

The communications industry has exploded with new technologies such as IP, Voice over Internet Protocol (VoIP), text messaging, cloud computing, M2M communications and more. Intrado continues to evolve, leading the industry by providing users of both traditional and emerging technology with high-quality, reliable access to emergency assistance.

Intrado improves emergency response through data accuracy, pinpoint location identification and highly available, highly reliable networks

The ability to accurately determine the precise location of a mobile device within a network is critical to emergency response operations. With continued emphasis on providing emergency personnel with the most accurate information needed to respond efficiently and effectively in emergency situations, Intrado is committed to continually enhancing and improving the location data we deliver.

Our sophisticated technologies for location services, IoT and VoLTE help enterprises of all sizes meet regulations and provide a better class-of-service to their subscribers and end-users. Wireless carriers, VoIP service providers, telematics operators, cable MSOs, alarm companies and satellite phone providers depend on Intrado for location determination and routing services to meet emergency communications requirements.

Intrado provides a comprehensive hosted platform that seamlessly integrates current handset and network-based mobile location technologies; our location determination services automatically apply precise locating methods to deliver the most accurate results available.

Intrado delivers location information to Public Safety Answering Points to determine the exact location of emergency wireless phone calls and deliver multimedia call capabilities, allowing text, images and video to be sent from those in need of emergency assistance. It is our mission to ensure that every piece of technology —each with its own production specifications and operational protocols—works seamlessly with each other, so that every request for help can be delivered from the sender to the emergency call taker, providing the highest level of location determination accuracy in the market and the most up-to-date emergency call routing capabilities.

Intrado's systems and services touch millions of lives every day. We take that responsibility seriously.

We connect. We deliver. We are Intrado.



Ipkom

CAD

Control Room Integration

Interoperability Solutions

Next Gen Comms

Public Safety

Established in 2008, **Ipkom** is a company where fresh ideas are interlaced with varied experiences of skilled workers. Our company pools experts with long standing experiences in the field of informatics and telecommunication. Our work is focused above all on idea realization and filling up newly formatted needs in the sphere where informatics and telecommunication interweave.







At Ipkom we offer a wide range of services and solutions, anywhere from simple to complex ones. Focusing our work on the area of public safety, we can rely on a great deal of experience in this field. Our mission is developing new telecommunication / information techniques and methods. We realize that your business success relies upon quality information solution, therefore with our solutions we look after your needs and let you focus on your work. Care for our customers is expressed by high quality support since our goal is to have content clients with long-term cooperation.

QUARK

Call-Taking and Dispatching communication center Quark was designed specifically for critical use cases, which are subject by the public protection and disaster relief (PPDR) authorities. The Quark system offers a unique product solution which is designed with the goal to enable citizens to reach a 112 authority by using a legacy system based on Voice call, SMS, WAP, as well as the next generation communication systems such as VoIP, Video and eCall.

In critical environments, where every second counts, the solution that offers interoperability between emergency services and providing both voice and data information exchange, has the utmost importance in supporting the incident role. By providing software modularity, highest level of adaptability, open standard approach and architecture flexibility (distributed and cloud-based architecture), together with agnostic OS client installation, Quark as a Call-Taking and Dispatching systems has already been set as a Next Generation 112 system.

As a system, Quark has been in operational usage for many years as a central 112 management system in Slovenian Administration for civil protection and disaster relief, evolving from basic Call-Taking console up to a full scale communication center, which now connects local call-takers and dispatchers into a nationwide operational center. Quark achieves this by providing seamless voice and data experience through different regions, services and organizations (emergency units, fire brigades, police, intervention headquarters etc.).

Key features:

Operating system agnostic clients (works in Windows, Linux, any other platform)

Flexible server architecture

-modularity of Quark system enables end user to set up own preferrable, custom configuration Cloud based

Distributed solution

- local, regional or national level
- interoperability of levels
- redundant
- 112 datapool feature, enabling external units to be a part of the system, as well as providing an additional form of data redundancy

Seamless over-border communication (lightweight client for non-operators and API's for nongreenfielders)

Execution of Action Plan algorithms

- action plan algorithms offer a rapid, user friendly access to an appropriate action plan for an incident taking place
- hierarchical usage of location and event type
- short action plan time to activation

Operator working place customization

Communication services and support for: CS voice, VoIP, radio, paging, SMS, AML, eCall, Video, GIS, WAP, local CRM databases,

PSAPs for: SMS, eCall, redundant

Operator diary

- detailed user activity log
- operator shift switch documentation

General internal messaging

- clear insight of internal communication between operators

Statistical data and presentation

- for all supported type of services



IPS Consultants

Disaster Management

Emergency Apps GIS Specialised Consultancy

International Public Safety is a boutique consulting firm in the Public Safety and Technology Sector.

We understand the Public Safety & Security domain in Europe and worldwide having deep industry expertise. Our Clients are governments, Public Safety agencies and companies providing technology for the Public Safety market.



Our Team is comprised of senior executives and consultants each of them having extensive experience in the Public Safety and Technology Sector.

Our Specialties are Strategy, Technology, Management, M&A, Programs & Projects, Operations, System Engineering.

We deliver strategies and concepts having a strong focus on implementation. Our work is characterized by an effective and efficient project work as well as active participation during the implementation phase.

Basis of our consulting work is our expertise of state-of-the-art software centric technologies:

- Software Development Environments
- Data Management & Storage
- Cloud Infrastructure & Cloud Computing
- Mobile Communication and Mobile Apps
- Geographic Information Systems
- Safety & Security

We understand the use of these technologies for all key Public Safety & Security Application areas:

- Command & Control
- Incident Command
- Records Management

By combining our technology expertise with our understanding of the Public Safety & Security domain we

- create Business & Technology Strategies,
- support M&A activities,
- run Management, Programs & Projects,

- help with Operations,
- do System Engineering

for our clients.

International Public Safety is providing expertise in Strategy, Technology, Execution and Operations, while creating lasting value.

International Public Safety is a founder of moPS GmbH, Mobile Services for Public Safety. moPS is providing mobile Apps supporting Public Safety & Security workflows on any mobile Device!

#publicsafety #technology #consultingfirm #mobileapps #mopsapps



Iskratel

Control Room Integration

eCall

Information Analytics

Next Gen Comms

Public Warning

With over 70 years of experience, **Iskratel** is the leading European provider of communications solutions for the digital transformation of the telecommunications, transport, public safety, and energy industries. With its own R&D and manufacturing centres, Iskratel meets the demands for carrier-grade and mission-critical connectivity of fixed and mobile operators worldwide, as well as those of large-infrastructure industries, such as railways and power utilities. From roads to rails, from



(§) iskratel.com/en

cities to countryside, from mine to factory, our aim is to make connectivity and operations smarter and safer. Member of the global technology group **S&T**, Iskratel has a local presence in more than 50 countries and is consistently expanding its market position, especially in Western Europe.

Iskratel's **public safety solutions** are designed to provide officials with a complete and instant overview of activity on public roads, venues and spaces, allowing them to spot, handle or avert danger ahead of time.

Emergency communications with **112 solutions** complement existing emergency communications infrastructure with next-generation operational centres to increase public safety. Iskratel's PSAP (Public-Safety Answering Point) solutions fill in the gaps in today's public safety network and lay a simpler, more-efficient and cost-effective path for handling future emergency situations. Iskratel has made a confident step towards 5G technologies to complement various emergency services with a rich set of benefits of 5G networks while leveraging existing radio networks.

eCall Node is a scalable, flexible, and future-proof platform suitable for upgrading existing PSAPs with eCall functionality. Providing advanced features eCall Node is also fit for cloud service models and the provision of value-added services on top of eCall. In a scenario of an accident, it may provide MSD data to operating centres in the responsible municipality or highway patrol in the area. Iskratel proudly presented its **NG eCall Node** at a co-hosting event NG eCall Plugtest 2020 – ETSI, where it acquired a design confirmation. Iskratel as well contributed to design architecture specification of the eCall over IMS within the sAFE project.

Safe City solution offers cutting edge, end-to-end security with ubiquitous network access, a convergent operations centre, and a video-surveillance management system. The solution integrates information modules and communications such as voice, video surveillance, geographical information system (GIS), and a variety of sensors to enable efficient emergency response and inform tactical manoeuvres in various situations.



Issured

Artificial Intelligence

Cyber Security

Drones

Information Analytics

Specialised Consultancy

Issured provide world class digital transformation working in partnership with our clients to turn their strategic 'Vision into Reality' and to deliver tangible value. Our blend of high-level skill and delivery experience enables us to design and deliver effective solutions to meet all the requirements of clients.



We have a proven successful track record of working as a trusted independent partner in enabling our clients to implement the right blend of digital services, people centric processes and cultural change to allow efficient and effective operation in an ever-evolving digital landscape. Our major client in the United Kingdom is the National Police Chiefs Council where we are working across all 43 forces and Counter Terrorism Policing to deliver significant improvements in the Law Enforcement operating model.

We have delivered major modernisation and change programmes, worked in very demanding international locations, designed and led international training programmes and are a true digital transformation specialist organisation. Our staff were involved in the design and implementation of the Safe City projects in Islamabad and Lahore and we have delivered similar projects in Kenya, Nigeria, Ghana and the UAE.

An example of this has been working for the National Police Chiefs Council where we have been identifying and developing a new operating model for policing that joins up initial public contact and organisational tasking, introduces the new ways of working for investigation, intelligence when operating in a Digital landscape. These enhancements are further developed to ensure the right digital linking to Courts with the supporting evidential requirements of an evolving digital Law Enforcement environment. We have led the development of the "Digital Learning & Knowledge Base" business case with the College of Policing which is key to supporting the embedding of digital led change.

For Safer City programmes, Issured supports organisations to modernise their operating platforms to effectively service their evolving safety and security needs. The Safer City platform provides an integrated suite of technologies, innovative Concept of Operations, quality focused processes and staff capabilities to proactively manage the security situation and to professionalise the security response to incidents.

Mea: Connexus - A Unique Digital Engagement Platform

In order to support emergency services, Issured has introduced Mea: Connexus, an innovative digital engagement platform, that offers the following unique capabilities:

- **Blockchain Immutability** Where the evidential integrity of recorded video interviews is of paramount importance, Mea: Connexus uses Blockchain technology and SHA-256 hash algorithms to create a sealed "digital evidence bag" around the content of the interview. This will mean you can always evidence if the content has been edited or changed in any way.
- Case Management Recognising that investigations are largely undertaken in teams, Mea: Connexus will provide the ability for organisations to create groups of users that replicate their teams. Team members can create interviews for others and review and comment on each other's video interviews.
- Mandatory Recording Mea: Connexus records all video interviews from the point of entering the interview to the closing of the interview session. All engagement between participants is recorded for future review and presentation.
- Time-coded and named transcription Mea: Connexus converts each participants speech to text and presents the hosting organisation with a full transcript of the entire video interview that sequentially provides who was saying what and the time that they said it.
- Secure video, chat, media sharing and storage Mea: Connexus uses 256-bit AES Encryption to
 secure your video interviews and any chat and media shared with participants throughout the interview.
 All video interviews and shared materials are securely stored with encryption in the cloud. Mea:
 Connexus has been assured to UK OFFICIAL and aligns with the UK's National Cyber Security Centre
 SaaS and Cloud principles.
- Organisational Branding Your customers want to be confident that they are talking to you. Mea:
 Connexus allows you to use your own corporate identity, logo's, crest's and badge's and by provides
 participants with your own privacy policy and consent notices.
- **Device Agnostic** Mea: Connexus works with all desktop and mobile operating systems and their default browsers. Participants do not need to download any application on their devices.
- **Blockchain Validation** Mea: Connexus provides both users and external parties the ability to validate the content of a video interview to demonstrate and ensure that the record of the video interview has not been tampered with in any way. With the ability to produce "deep fakes" and the editing of video content becoming easier and easier, Mea: Connexus provides validation and authenticity of the video interview.
- Reporting Mea: Connexus provides easy to use and understand dashboards and management
 information that gives customers all of the information they need to manage their organisations use of
 the Mea: Connexus service.



Japan MayDay Service

Caller Location

eCall

Emergency Apps

Emergency Call Routing

Emergency Call Management

General Manager, Business Planning and Sales

Ichiro Ando

6 helpnet.co.jp

Operations Dept.

Although JMS is a private company, it was established with capital contributions from various companies throughout Japan, due to the high public nature of emergency call services.

Main shareholders are as follows;

- All of the car manufacturers in Japan
- Three major telecommunication carriers in Japan (NTT, KDDI, Soft Bank)
- Almost all of the major car navigation manufacturers in Japan
- Major Banks, Insurance companies, etc.

JMS started the "HELPNET" service in September 2000, and has been providing it over 20 years all over Japan.

As of March 2022, JMS supports nearly five million vehicles, and receives seventy thousand emergency calls annually from all over Japan.

In Europe, #112 covers both Police and Ambulance, but in Japan, there are two different emergency call numbers: #110 for Police and #119 for Ambulance.

Based on this situation, Japanese government issued "Guideline for the Third-Party Service Providers on Emergency calls from Vehicle" in May 2018.

JMS is the only company that almost meets this guideline and can connect each emergency call quickly to most appropriate Police/Ambulance head office.

Only JMS can send accident/vehicle data and voice calls to 52 police and 723 ambulance head offices all over Japan through its leased line network.

At the AECS 3rd meeting held in February 2014, the Ministry of Land, Infrastructure, Transport and Tourism introduced JMS as "the PSAP in Japan".



King ICT

Drones Emergency Call Management

KING ICT is the leading system integrator in Croatia and one of the largest in SEE, with number of successfully developed and implemented innovative solutions for enterprises and public authorities.

Headquartered in Zagreb, KING ICT is present in the Adriatic region, with offices in Bosnia and Herzegovina, Serbia, Macedonia and Kosovo. We



Executive Operations Manager, Management Board Office

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& king-ict.com/en

have developed a network of service centres in Croatia that are available to our customers 24/7. We are part of the M SAN Group, which employs over 1.500 people.

KING ICT is the founder of several specialised companies, **Aktivis** - specialised in document management; Smart Energy - specialised in the design and implementation of electrical and mechanical installations; and **Planet IX** - specialised in the use of artificial intelligence and its applications in data processing in robotics, drones and unmanned aerial vehicles.

Our primary drivers are knowledge, expertise, creativity and motivation to improve businesses and to create added value. Through innovative ICT solutions, KING ICT aims to build a more connected and digital future for our and future generations.

The solutions we deliver range from highly specialised ones to those used by a great number of users in everyday life. Our customers come from a range of different branches, such as transport, energy, agriculture, health care, education, judiciary, trade, finance, telecommunications and many others.

Our innovative enterprise solutions are based on new technologies, cloud and mobile first principles. We build data centres, optimise IT infrastructure, implement security solutions and research and develop new ways of managing information, which has led to the creation of systems such as the BI system for business reporting and the GIS solution for the exchange of spatial data.

New technologies, combined with our knowledge, skills and individualised approach enable us to develop solutions that contribute to the quality of operations, and correspond to customer needs. We offer support and consultation services on digital transformation, through the implementation of adequate technological solutions.

KING SFERA

KING SFERA is a software solution that enables communication, coordination and management in emergency situations. Based on the received information, and in accordance with the action plan, operators at emergency services are able to display spatial data and mobilize the necessary services to the site depending on the type and location of the situation. The system records data of the situation in a single database, enabling all services in the field to have access to complete information and thus efficiently resolve unexpected situations. KING SFERA also offers possibilities such as eCall and upgrading with NG 112 services (audio, video and text emergency call over internet). The flexibility of the solution enables links with communications systems to other emergency services, to ensure more detailed collection of information and most effective response to emergency situations.



LIS (Leitstellen-Informations- Systeme GmbH)

CAD Caller Locat

Control Room Integration

Disaster Management

eCall

LIS GmbH has been a partner of organisations of public & private safety for over 30 years.

With our LIS SP - ServicePlus - system, a broad, modular and consistent product range is available for all authorities, organisations and institutions with security tasks (fire brigade, ambulance service, private security).



The modular system consistently maps – besides alerting - many processes to administrate an organisation. Data entered in one module is immediately available to other products. Duplicate entries and the associated possible incorrect entries are avoided. Another aspect is the time saving.

A modular system means, to start with one product and having the security of being able to expand the system in all directions as requirements increase.

An excerpt from the product range:

- Dispatching / alerting with interfaces to external systems (e.g. eCall, AML)
- Disaster management
- Interfaces to alerting and communication systems
- Operational documentation / accounting
- Personnel management / roster tool
- Management / maintenance of tools & devices with mobile devices
- Daily journal documentation of daily events and much more.

Our solutions for administration offer a multitude of interfaces to other PSAP systems, mobile data collection in emergency services as well as to various municipal systems, e.g. to transfer accounting data or personnel data.

We develop individual solutions based on the existing standard and thus offer a high degree of investment security.

Your solution - from a single source.



Locus Solutions

CAD

Emergency Call Management

GIS

Resource Management

Triage

When time is of the essence, the emergency services are dependent on clear communication and accurate information. That is why they choose software solutions developed by Locus Solutions.

Since 1991, Locus Solutions AS, a company in the Enghouse Group, has developed business-critical IT solutions for emergency vehicles, rescue services and security companies. We know that when an accident strikes, time is a scarce resource. That is why we develop technology that empowers emergency responders to make the right decisions at the right time.

2

Trond Nerdal

Director Sales



Ø locus.no

Together, we are on a mission to save lives.

Utilizing Safety-Critical Data

During emergencies, we believe that clear communication is the key to a safe outcome.

Emergency dispatchers, who initially assess the situation, are forced to make crucial decisions regarding the urgency of the call, which symptoms require which type of medical help, and where to send the emergency services. These decisions can separate life from death.

With a reliable and high-quality solution from Locus, emergency dispatchers are able to make better decisions faster by utilizing our safety-critical data. Our job is to gather the relevant data, analyze the information and predict future patterns. The results are yours to act upon.

LocusEmergency:

LocusEmergency is a reliable and comprehensive system designed for receiving, registering and handling all types of enquiries and alarms to the emergency services. By combining information from multiple sources, we are able to provide a clear and complete overview of the emergency situation.

This information empowers the dispatchers to make the best decisions in difficult situations.

• LocusMobile:

LocusMobile is a mobile application that emergency services can benefit from in the field. This solution handles navigations and receives mission-critical information for emergency services, such as fire brigades and ambulance services.

With our solution, the information is continuously updated, meaning that you always have the most accurate and detailed overview of the situation.

Scalable technology for tomorrow's challenges

We believe that accurate information is our best weapon when we are working against the clock. That is why we create robust, highly scalable and technologically advanced software solutions that can seamlessly manage emergency responses – both those of today and those of tomorrow.

Your safety is our biggest concern.



Microsoft

Big Data

Cloud Services

Control Room Integration

Cyber Security

Multimedia Comms

Keeping Our Cities and Communities Safe

A common operating picture and real-time information are critical for enabling first responders to provide a proactive, coordinated, collaborative and informed response to protect the citizens they serve.



Over the past decade, challenges to public order, malicious use of social media, the advent of cyber-crime, and increasing natural and man-made emergencies and disasters have underscored the vital role police, fire and rescue, mountain and sea rescue, and civil defense officers play in increasing the safety of people and the security of the communities they serve.

Due to first responders operating in this complex and ever-changing working environment, digital transformation will be essential to maximize their operational effectiveness and efficiency.

Agencies will need to enable remote working and facilitate cross agency collaboration. First responders can best mitigate the risks of local emergencies and national disasters when they have access to a common, dynamic operational picture and real-time intelligence which can collectively help them plan, manage, and make informed and timely decisions from anywhere to enable them to respond to man-made and natural disasters in both urban and rural areas. When first responders can communicate and collaborate in real time, both within and between crews and organizations, they are better prepared to coordinate their responses and act in a timely manner and they enhance their ability to save lives and mitigate damage to property and infrastructure.

Public safety and justice agencies must hold themselves responsible for delivering trusted and secure services to build community trust and engagement. Agencies will be expected to secure information, protect infrastructure and ensure regulatory compliance.

Microsoft and our partner cloud and mobile solutions such as Mobile Patrol, Video Management, Call Centres (PSAP), GIS, Computer Aided Dispatch and Records Management Systems, together with Data/ AI and IOT technologies such as body-warn cameras, CCTV, drones and sensors can significantly help improve operational effectiveness and efficiency for first responders and law enforcement.

On-premises and cloud-based solutions, enabled by technology from Microsoft and its partners, help coordinate response and enable real-time information sharing across agencies, breaking down silos, enhancing real-time communication and collaboration, and deepening citizen interaction to share intelligence and proactively accelerate intelligence-led lifecycles.

Furthermore, in the advent of social media and mobile apps, first responders can both receive immediate insights from the public as well as using these latest technology mediums to send out notifications and mass warning alerts to the public in both urban and rural areas.

Unified communications technology can help to automate the management and sharing of inbound incident-based information across multiple agencies. It can empower staff from multiple agencies, assembled for incident response operations, with the familiar tools they use to support their other daily operations. The broad use of Microsoft technology across agencies provides a level of familiarity with solutions to help ensure that responders can leverage the capabilities they rely on every day.

Another important consideration is to minimize learning time for responders and operators by providing familiar communication and collaboration tools that assist rather than impede effective response. Furthermore, first responders can share information with enhanced-security and mobile features to collaborate in real-time within and between multiple agencies, as well as on route and at the scene of the incident.

For additional information please contact Kirk Arthur or go online and visit our worldwide government website



Motorola Solutions

CAD

Control Room Integration

Cyber Security

Emergency Call Management

Radio Solutions

Motorola Solutions is a global leader in public safety and enterprise security. Our solutions in land mobile radio mission-critical communications, video security & access control and command centre software, bolstered by managed & support services, create the most integrated technology ecosystem to make communities safer and help businesses stay productive and secure. At Motorola Solutions, we're ushering in a new era in public safety and security.



Know what matters, when it matters - Experience software integration from call to case closure

Emergency Call Handling and Computer-Aided Dispatch

Transform your control room operations by combining mission-critical security and availability with ondemand capacity, with integrated voice, data and multimedia. Increase your operational flexibility, remove obsolescence and reduce risk

The purpose-built application handles voice calls, text and multimedia messages simultaneously and streamlines workflows so that call takers and dispatchers can focus on managing the incident at hand without being distracted by the complex technology that surrounds them.

With the scalable, highly configurable and integrated CAD software, dispatchers can quickly identify and send the nearest available and most appropriate resources to improve incident outcomes. The integrated CAD lets you manage each incident effectively based on workflows and protocols.

Post-Incident Investigation Analytics

Our investigative platform provides actionable intelligence for public safety organisations of all sizes. It includes one of the most comprehensive, advanced suite of automatic number plate recognition (ANPR), facial recognition, analytics and commercial data available to improve safety for officers and communities.

Digital Evidence Management

Investigating officers can maximise the value of their digital evidence with a cloud-based solution that provides access to all the digital content your organisation collects, intelligently organising it to help simplify content management, make case evidence quickly reviewable and then shareable to ensure justice is achieved.

Cybersecurity

Establishing and implementing a cybersecurity strategy comes with many considerations. Your organization needs to understand and apply the cybersecurity industry standards and risk governance frameworks pertaining to your sector.

ActiveEye Managed Security Platform provides continuous insights to security relevant activity with autonotifications, daily email summary and monthly reports. The flexible architecture evolves with modern IT.



NUUK

Cloud Services

Control Room Integration

Drones

Multimedia Comms

Recording Solutions

Nuuk Technologies is an innovative software-based company that orchestrates visual intelligence in complex and dynamic contexts like emergencies. We design, develop and sell a software platform that improves the effectiveness, the productivity of first responders while reducing their response time.



FlexControl

Our platform FlexControl, is a collaboration platform that enables emergency services to manage in an agile manner the **multimedia resources** required and available in emergency contexts regardless of the network where they are located. From surveillance cameras, smartphone cameras, to drones and IoT sensors, FlexControl provides mechanisms for a flexible configuration of distributed command and control **virtual rooms** enabling **collaborative decision-making**, connecting operative, tactical and strategic levels. Our platform provides the means for quick and easy access of all first responders collaborating in an emergency (PSAP's, fire-fighters, police, ambulances, etc). Being a web-based application, it also enables the contribution of any user with a smartphone, allowing the concept of citizen as a sensor to become a reality.

FlexControl unlocks your potential by making a reality the sentence: "one image is better than 1000 words" and allow first responders to enter new dimensions with the **orchestration of visual intelligence**.



nWISE

Emergency Apps Multimedia Comms

nWise is a leading global provider of technology for Telecom Relay Services and solutions that enable Emergency Services to receive calls from people who are Deaf, DeafBlind and Hard of Hearing.

OUR VISION is to enable communication for all, by eliminating the unequal gap in telecommunication that Deaf, DeafBlind and Hard of Hearing individuals experience when making a phone call.



We offer an end-to-end solution that can be integrated into the core network of Emergency Services, as well as provide connectivity with key external services such as interpreter services, telecom relay services, video relay services, emergency apps and other third-party apps for communication that use RTT and Total Conversation.

Our offering for Emergency Services includes:

- Specialized apps for people who are Deaf, DeafBlind or Hard of Hearing
- Caller location information
- RTT Bridge, to integrate RTT to the core network

nWise RTT Bridge

nWise RTT Bridge is a modular solution that adds RTT capabilities to existing communication solutions used in Next Generation Emergency. It was developed to meet the NENA i3 standards and NG112/EMETEL requirements.

These are the main features of nWise RTT Bridge:

- Designed to be integrated
- Multiparty calls with text
- Recording Real-Time Text
- Multi node scalability/redundancy
- Bridging between protocols
- Highly configurable



one2many, an Everbridge company

Disaster Management

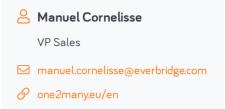
Multimedia Comms

Next Gen Comms

Public Warning

Telecommunications

One2many, acquired by Everbridge in March 2020, is a leading global vendor of nationwide public warning solutions for governments and the telecommunications industry. One2many is the pioneer of cell broadcast technology delivering the world's first cell broadcast center in 1996. With more than 85 deployments worldwide,



Everbridge one2many is the leading cell broadcast system providing the most advanced, high-performance technology for emergency alerting.

About one2many, an Everbridge Company

The combination of one2many and Everbridge creates the largest and only public warning system offering multi-hazard, multi-channel alerting including cell-broadcast and location-based SMS. Customers are assured that no matter which technology they select, Everbridge is the proven expert for meeting and exceeding EECC Article 110 and other global initiatives for countrywide population alerting.

One2many's main office is in the Netherlands, with support offices on 4 continents and a world-class expert team of different nationalities available around the clock to support our customers.

One2many enjoys more than 20 years of experience in high profile, mission critical projects, with over 85 installations, at more than 55 customers in more than 32 countries.

One2many's unique domain expertise, products, technology, experience and methodology has resulted in industrywide recognized and leading examples on how to implement national public warning successfully.

One2many's specialized service and product portfolio towards governments and authorized authorities include the delivery of high-performance public warning systems in accordance with **article 110 of EECC**, multi-hazard alerting systems and multi-channel early warning system.

One2many's main focus is to deliver comprehensive end-to-end public warning solutions by providing the necessary infrastructure and technology also for the dissemination of warnings and alerts to the maximum number of people in the shortest possible time over the widest range of available channels.

One2many's Geo-targeting and Geo-fencing dissemination channel product portfolio is the most extensive in the market and includes amongst others: **Cell Broadcast System**, CBE, Multimedia Broadcast Multicast Service Centre, CAP Gateway, SMS Gateway, Voice Gateway, Social Media and Mobile App gateways.

All one2many products are inhouse developed, maintained, managed on cloud or provided in-network, with intellectual property rights 100% owned by one2many resulting into high quality projects with short delivery times.

One2many has close relationships with all mobile network infrastructure companies, major SIM vendors, leading handset manufacturers and industry standardization organizations, and has a unique combination of both theoretical background and practical experience in public warning. This has resulted in the most mature and innovative Public Warning products available in the market.

Last but not least, one2many is an award-winning active member of standardization bodies like ETSI, 3GPP and ATIS (CMAS) significantly contributing to the standardization of public warning worldwide.

Unique Advantages of one2many, an Everbridge Company:

- Capable of delivering a full end-2-end nationwide public warning system by providing the necessary infrastructure for towards Governments and Telecommunication Providers, enabling their own state-of-the-art software products and sharing their proven experience and know-how.
- Has the greatest number of recent successful deployments of end-2-end national public warning systems in the world.
- Has the unique combination of both theoretical background and practical experience of running nationwide public warning services on all continents e.g. in The United States, The Netherlands, Taiwan, Philippines, Chile, UAE, Oman, Greece, Mauritius and New Zealand.
- One of the most internationally experienced and respected Public Warning solution vendors; for Governments, Telecommunication providers, handset manufacturers, Telecommunication network equipment vendors and standardization bodies.
- Has more than 20 years of experience in providing Telecommunication products towards mobile operators with subscribers ranging from 1 million to over 70 million each.
- Has the most mature Cell Broadcast product available in the market including support for 5G networks (AMF) and Device Based Geo Fencing (WEA 3.0) functionality.
- Product design paradigms are based on high availability, high performance, interoperability with every major product from every major vendor, open standards, cloud and NFV ready.
- Actively involved in standardization committees like ETSI, 3GPP and ATIS (CMAS/WEA/EU-Alert).
- One of the main contributors to and editor of ETSI's EU-Alert standards.
- Winner of the 2015 ATIS Outstanding Achievement award for its contributions to the North-American Public Warning (CMAS) standards.
- Has strong company values for social responsibility and business ethics.

Everbridge (NASDAQ: EVBG) is a global provider of public safety and public warning solutions that helps governments and public authorities to keep their populations safe when it matters most, at anytime, anywhere. During public safety threats such as severe storms, earthquake and tsunami, wildfires, flooding, pandemic, industrial accidents, civil unrest, and terrorist attacks, over 5,700 global clients, many countries, states or organizations rely on the company's Critical Event Management solutions.

The company's platform sent over 5 billion messages in 2020 and offers the ability to reach over 800 million people around the world, including the entire populations of Australia, New Zealand, Taiwan, Singapore, The Philippines, Cambodia, Peru, Chile, Greece, Iceland, Sweden, Norway, The Netherlands, Mauritius, Oman, Saudi, UAE and several of the largest states in India.

As a pioneer in public alerting technologies, Everbridge developed the first cell broadcast and location-based SMS solutions and to date has been awarded 16 patents, we continue to be active in driving standardization of public warning worldwide through 3GPP, ATIS, ETSI and EMTEL.

The company's critical communications and enterprise safety applications include Public Warning, one2many, SAGA, Mass Notification, Incident Management, Safety Connection™, IT Alerting, Visual Command Center®, Crisis Management, Community Engagement™ and Secure Collaboration. Everbridge has offices in The Netherlands, United Kingdom, Switzerland, France, Germany, Spain, Finland, Denmark, Norway, Sweden, Middle East, China, India, Singapore, Australia and New Zealand, Los Angeles, New York, Lansing, San Francisco and Boston.



OnStar

eCall

Third Party Services

OnStar is the world's leading provider of connected in-vehicle safety and security services. We provide OnStar and Connected Services to 20 million members in the U.S., Canada, China, Mexico, South America and the Middle East.

The telematics system is imbedded in the vehicle and combines cellular communications, global positioning system (GPS) satellite location and live human interaction with OnStar

Catherine Bishop

Senior Global Emergency Services Manager

☐ Catherine.bishop@onstar.com

public-safety.onstar.com

advisors to provide assistance to people in need. It offers Automatic Crash Response, a red SOS button for 24-hour Emergency Call Service, a blue Service button for non-emergencies. There is also a toll-free number customers use to request remote door unlocks and Stolen Vehicle Assistance.

OnStar also offers the OnStar Guardian App, which is designed to give members key safety services in or out of any vehicle. Wherever they take their smartphone across North America, they have a little peace of mind in the palm of their hands providing mobile crash response and an SOS button for those potential emergency situations.

OnStar has been a trusted partner of emergency services (including emergency dispatch, law enforcement, fire and rescue services) in the US and Canada for over 24 years. Our unique approach to this relationship is to work with emergency services, doing what is best for those in need with open lines of communication. This collaboration resulted in enhanced processes for handling and triaging emergency calls. This helps streamline the interaction between emergency service personnel and the OnStar advisor, which minimizes impact on the finite number of emergency responders and resources.

OnStar has a dedicated Public Safety web site where you can find answers to your questions about how we work with public safety. In addition, we have developed web-based OnStar Public Safety Training. This hourlong self-paced interactive training in English contains a course completion certificate and has been approved for continuing education credit. It is available at no cost.

WEBSITE:

USA: https://www.onstar.com/us/en/home/

Canada: https://www.onstar.com/ca/en/home/

Mexico: https://www.onstar.com.mx/

South America:

Brazil: https://www.chevrolet.com.br/servicos/onstar

Argentina: https://www.chevrolet.com.ar/onstar

Colombia: https://www.chevrolet.com.co/onstar

Ecuador: https://www.chevrolet.com.ec/onstar

Paraguay: https://www.chevrolet.com.py/onstar

Perú: https://www.chevrolet.com.pe/onstar

Uruguay: https://www.chevrolet.com.uy/onstar

Chile: https://www.chevrolet.cl/onstar



Opencode Systems

Caller Location

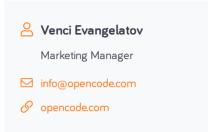
Disaster Management

Next Gen Comms

Public Warning

Telecommunications

With over 20 years of experience in building telecommunications solutions, **Opencode Systems** is one of the leading providers of cell broadcast and SMS-based public warning systems (PWS). Our solutions, based on a market-leading, patented telecommunication technology, have been deployed in Europe, Asia, South America, the Caribbean and the Middle East.



Opencode wireless mass notification suite provides Public Authorities with Early Warning Broadcast capability over 2G, 3G, 4G and 5G mobile networks. Critical safety information can be simultaneously broadcast to millions of mobile users in a whole country or just to a geo-fenced area of interest.

Opencode alerting solutions are conveniently deployed in centralized, distributed or mixed architecture. In a centralized deployment the solution is managed and owned by a relevant public agency. In a distributed deployment, service providers are responsible for the solution's operation, while providing secured broadcast access to authorities. The mixed architecture provides numerous different options including multi-tenant deployments, where several MNOs can share the system.

By design Opencode PWS is omni-channel. This advantage allows to quickly extend mission critical wireless reach to more population segments using additional broadcast channels such as radio, TV, IPTV, social networks, public info panels, digital road signages, sirens, etc.

The public warning alerts are managed via a rich and intuitive user interface. This interface includes interactive online and offline country geo-maps that allow users to visually define, broadcast and manage alerts. It is also the administration point for different agencies, service provider users and networks. The interface comes with superior security, restriction and validation functions allowing usage to remain simple and protected from breaches and unwanted behaviour.

Over the years Opencode Systems has delivered telecommunications solutions in 50 countries generating value to world-class service providers including Vodafone, Orange, Telenor, Ooredoo, Etisalat and many others.

Opencode Systems has a staff of 160 engineers worldwide with the main offices being in Bulgaria, France, Malaysia and Tunisia.



Oracle Communications

Cyber Security

Multimedia Comms

Next Gen Comms

Telecommunications

Voice Comms

Meet Oracle Communications

Oracle Communications provides integrated communications and cloud solutions for Service Providers and Enterprises to accelerate their digital transformation journey in a communications-driven world.

Ahmed Hamdani
Sales Consulting Senior Manager

☐ ahmed.hamdani@oracle.com

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We understand that emergency response services cannot be interrupted, not even briefly, and all communications must be secure and clear – this is why having Session Border Controllers and Service Delivery solutions built for mission-critical environments are crucial. Oracle provides the specialized communications solutions that ensure the high reliability and high quality that satisfy these demands.

Read more: Oracle Enterprise Communications solutions

Oracle Service Delivery

Our Service Delivery solutions provide a unified intelligent cloud based framework to fulfil the needs of next generation public safety organizations throughout the world. Our solution enables multi types of communications like voice and video from various sources over a wide range of transports (3G, 4G/LTE, 5G, WiFi, VSAT) into our intelligent centralized control application server based on real time communication requirements.

Read more: Telephony Application Server | Oracle

Oracle Session Border Controller

The world's most demanding real time communications networks utilize our industry-leading session border controller (SBC). SBCs are a key component of NG112 networks, where they play the Border Control Function (BCF) role, securing the network perimeter of the ESInet and the PSAPs. The Oracle Enterprise Session Border Controller utilizes a purpose-built architecture to deliver best-in-class capabilities for the mission-critical, real-time communications needed for emergency services.

• Secures telephony service during emergencies, call bursts, DoS attacks & more

- Scales up to the largest, most complex environments
- Protects QoE by assessing QoS & utilizing dynamic routing
- Protects **media quality** with dedicated, fast path resources (multiple processors)
- Prioritizes emergency calls to ensure the highest QoS
- Nearly eliminates service outages with best-in-class HA
- Enables recording & analytics with an integrated, standards-based interface
- Simplifies VoIP monitoring & troubleshooting
- Can be deployed in small and large scale on appliances, virtual and cloud

Read more: Oracle Enterprise Session Border Controller



Orbita Consultancy

Project Management

Resource Management

Specialised Consultancy

Third Party Services

Orbita specialises in service delivery and the optimum, seamless use of the different channels for customer/citizen interaction and management. We characterise our services in many ways; and in particular we do not just provide documented advice – rather we also help our clients to implement change with hands-on involvement, then through transition to steady-state in the new business as usual.



As well as specialising in PSAP operations, we have the necessary programme and project management skills, experience and track record to implement change and improvement projects.

We are expert in Workforce Planning and Resource Management which is key to determining resourcing requirements; through forecasting demand, capacity planning, and scheduling staff to match contact volumes and arrival patterns.

We are completely independent of any suppliers or other companies and organisations and in all our dealings with our clients, we are non-biased – except through our total commitment to our clients and we operate with the highest integrity.

Over the years, Orbita and our consultants have delivered many operational excellence reviews, business process re-engineering projects, contact centre strategies for clients in both the emergency services and other industries.

We have been involved with the EENA certification programme since its inception and have been integral to its deployment and growth.

In late 2017 Orbita merged with Insight Now, combining the outstanding Customer Experience knowledge, capabilities and unique solutions provided by Insight Now with the consultancy skills and experience of Orbita Consultancy. We use this unique blend to monitor customer interaction and to advise on, and provide, the most appropriate Customer Experience (CX) solutions for our clients and their customers / citizens.



Pert Telecom Solutions Private Limited

Disaster Management Emergency Call Management

Public Warning

PertSol, is a leading global provider of IT and Telecom solutions that drive quality and productivity improvements across Telecom, Government & Law enforcement agencies in providing specialized solutions, Customized Software Applications, Professional and Project Management Services. Headquartered in Mumbai, India, PertSol was established in 2014 with a vision of building innovative future-ready solutions for the revolutionary telecom infrastructure with intelligent



connectivity to empower the entire ecosystem which is globally recognized and harmonized.

As innovators, we understand the current technology trends and predict changes in the market to build effective and scalable solutions that help our clients to achieve their business vision and deliver value to their customers.

With a highly skilled and proficient team on our side, we always analyse our Customer's business ideology, their requirements and infrastructure, and then finalize the best ways in which we can help them. PertSol philosophy has always been to provide prompt and effective service to our customers.

PertSol has the capacity to manage all elements of solution delivery- from planning and installation to maintenance and troubleshooting.

Our unique portfolio has plethora of products and services which includes

1. Location Enabled Emergency Services

iLocator - Location Intelligence Platform

PertSol's iLocator is an ultramodern Location Intelligence Platform, designed and developed to cover all location tracking needs of Emergency Response Teams and other National Security Agencies. iLocator helps to capture the distress callers' locations regardless of their handset model (Smart phone or Feature phone), telecom network type (GSM, CDMA, GPRS, 3G, 4G/LTE, voice only) and telecom infrastructure (GMLC or no-GMLC). We offer complete location intelligence platform which includes GMLC, SMLC, SAS, e-SMLC, AML integration, HLR Integration, 3rd party GMLC integration; customer may select solution modules based on their requirements.

Our platform is already handling 275,000 calls per day across multiple deployments.

2. Mass Alert & Messaging System

iAlert- Location Based Mass Alert & Messaging Platform

PertSol's iAlert is a Location based Mass Alert & Group Messaging Platform, designed & developed to send messages in the form of text SMS/Voice messages to pre-determined set of phone numbers or to all mobile subscribers present in the vulnerable area (geo-fenced area) to be affected by Cyclone or any other natural Disaster. iAlert disseminates timely & meaningful information to masses through multiple communication channels such as SMS, SMS-CB, voice call, TV/ Radio, social media, siren, VMS & more.

3. Telecom Core Network

iMDEG - Intelligent Mobile Data Exchange Gateway

PertSol's iMDEG is a next generation Packet Data Gateway that provides packet data services for 2G, 3G, 4G and also supports 5G, which is built from the ground up and is optimized for Virtualized Environments. It is an IP based core network infrastructure that enables IP-based communications and services over wireless. PertSol iMDEG can perform multiple network functions in a combination of multiple elements, depending upon the access technology like:

- 1. Packet Data Network Gateway (PDN-GW)
- 2. Serving Gateway (S-GW)
- 3. Mobility Management Entitiy (MME)
- 4. Policy and Charging Rules Function (PCRF)
- 5. Gateway GPRS Support Node (GGSN)

iHSS - Home Subscriber Server

PertSol's iHSS is a complete solution for managing subscriber information that contains subscriber information, device profile and state information. It has been designed to cater authentication, authorization and mobility management functions for various networks i.e. GSM, UMTS, LTE, IMS, WiFi and IoT network.

IMS - IP Multimedia Subsystems:

PertSol has complete IMS core solution which includes CSCF, TAS, MRF, Access Gateway, MGCF, BGCF and IBCF.

4. Telecom Regulatory Compliance Management

iNterceptor - Lawful Interception System

PertSol's iNterceptor is a unified Lawful Interception System for network operators and service providers which is fully compliant to the international standards and has a proven track record. It is a complete solution which is capable of handling both circuit switch and packet switch traffic from both legacy as well as latest telecom technologies including PSTN, 2G, 3G, 4G, LTE, NGN, IMS etc.

iSecureHL - IP Log Management

PertSol's iSecureHL is a fully automated solution that offers consistent and high-quality IP Logs across operator's network domains. It is a web-based system which fetches data from various sources like Internet Traffic, GTP traffic, CGNAT Logs, AAA traffic etc. and stores them in the form of IPDR.

iGMLC - Gateway Mobile Location Centre

PertSol's iGMLC is a part of PertSol's location services solution, which define the process of mapping the received coordinates (latitude and longitude) in a well-defined universal format, to the geographical area and sending this information back to the requested services.

iSMLC - Serving Mobile Location Centre

PertSol's iSMLC is also part of PertSol iLocator product suite which caters CSP's location service requirements. iSMLC manages the overall coordination and scheduling of resources required for the location of a UE (User Equipment) that is attached to RAN.

iRAS - Remote Access System

PertSol's iRAS offers scalable, mobile-ready secure access to enterprise applications and cloud services for any user, anywhere and on any device. It is a robust solution for secure remote access to a network.



PTOLEMUS Consulting Group

Automatic Vehicle Location

Caller Location

eCall

Interoperability Solutions

Specialised Consultancy

PTOLEMUS is the first strategy consulting firm entirely focused on connected mobility services and the Internet of Things. Present in Europe and North America, PTOLEMUS helps leading car makers, their suppliers, insurers and aftermarket service providers define and execute their telematics strategies.



With an extensive knowledge of global and European connected mobility markets (12 years of experience, 160 consulting projects), the consulting group regularly assists companies with strategy definition, investment assistance, procurement strategy, innovation management, business development or product strategy deployment. It capitalises on:

- A strong understanding of the adoption of connected and data solutions by large stakeholders
- 10 years of experience in emergency services (112, eCall) with 25 projects including for the European Commission (Help 112, AML deployment)
- A strong reputation in the mobility & emergency domains
- A track record of success in connected insurance (80 projects) and roadside assistance (18 projects) including for major players such as Allianz Partners, AXA Partners and Europ Assistance and the FIA
- A large network of relationships in the European mobility markets (both direct relationships and many executives in the database of 20,000 contacts we have built in the last 12 years)
- Experience of business development & strategic partnerships in mobility
- Relationships with all key xCall providers in Europe
- And last but not least, a good understanding of competitive solutions in the eCall, bCall, SVR and concierge markets.

PTOLEMUS also conducts market research activities and is the author of many widely praised reports:

- The Vehicle Data Market Global Study 2020, the future of car data sharing from concept to mass adoption, the first analysis of OEM strategies and car data hubs.
- The Fleet Insurance Telematics Global Study 2019, the complete reference report on commercial line insurance telematic featuring how fleets have embraced telematics, and how insurers will seize the opportunity
- The OEM readiness for Autonomous Vehicles, The global roadmap of OEMs' deployment of driverless cars, investigated 16 car makers in North America, Europe and Asia.

- The Global Mobility Roadbook 2019, the first holistic analysis of future mobility in 168 countries, guiding the industry from transportation to mobility.
- The Connected Fleet Global Study 2018, the unique strategic decision-making tool assessing the potentials and partnership models in the commercial transport market.
- The Usage-Based Insurance Global Study, the 1200-page reference document whose 3rd edition was published in January 2016.

For more information on research, please contact Andrew Jackson on ajackson@ptolemus.com

PTOLEMUS was also a member of the HELP112 consortium.

For more information about the consortium and the activities related to location based emergency assistance, contact Alberto on alodieu@ptolemus.com



Pulsiam

CAD

Control Room Integration

Disaster Management

Emergency Apps

Pulsiam is a proven and innovative leader in public safety software, with more than 30 years of experience in the industry. Specializing in public safety and disaster management, we have used our industry expertise to create a comprehensive browser-based command and control solution that is fully scalable and ideal for both the largest and the smallest agencies.



Director of International Business Development

Pulsiam.com/en

At Pulsiam, our focus is staying on the cutting edge of innovation through product development and, more importantly, by creating interfaces to the best mobile applications and software to hit the market.

The public safety industry is full of new, ground-breaking ideas, and with Pulsiam's SafetyNet applications and extensive interfaces, you can choose exactly the right solution for your agency.

Pulsiam has installed the SafetyNet suite of public safety software at more than 90 locations worldwide, serving nearly one hundred million people. Pulsiam's flexible architecture allows our support team to make changes to customer systems and databases on the fly, without interrupting operations 90% of the time.

Pulsiam's primary goal is to save lives: its fully integrated software and mobile application suite ensure that valuable, life-saving information is always in the hands of emergency response and disaster management coordinators and response teams as soon as it is available.

As an international company, Pulsiam meets the communication standards, certifications and protocols which are accepted worldwide.



RapidSOS

Big Data

Caller Location

Disaster Management

Emergency Call Management

Next Gen Comms

In partnership with public safety, RapidSOS has created the world's first emergency response data platform (also known as the RapidSOS platform) that securely links life-saving data from 350M+ connected devices directly to 112/999/911 and first responders in an emergency. The RapidSOS platform serves as a direct data pipeline from connected devices, platforms, and systems to public safety. It is an NG911 standards-compliant Location Information Server and Additional Data



@ rapidsos.com/europe

Repository that is accessible to authorized Public Safety Answering Points (PSAPs) through integrations into all major call-taking equipment, mapping software & CAD products.

PSAPs with access to the RapidSOS platform can securely access fast and accurate device location from millions of iPhones and Android devices, without the need for the caller to use an app. The RapidSOS platform also offers additional emergency data from user profiles (e.g., MedicAlert), smartphone apps (e.g., Uber), wearable devices, connected cars, connected buildings, and security systems. You can learn more at rapidsos.com/public-safety-products/.

There are two ways to access the RapidSOS platform

Get access with RapidSOS Portal

RapidSOS Portal is a web-based portal for PSAPs to access the RapidSOS platform within just weeks of claiming their account. With RapidSOS Portal, any PSAP can receive the benefits of all new data sources available on the RapidSOS platform, access training and admin tools, and view real-time data for their agency's jurisdiction on one map view. Simply sign up at RapidSOSPortal.com to authorize your PSAP and get started.

Integrate with your existing PSAP software

PSAPs can access data from the RapidSOS platform through direct integration with their existing CPE, CAD, or mapping software. When a call comes in from an enabled device to a PSAP with the RapidSOS integration, the platform is automatically queried for location and additional data. Information appears as supplemental data in existing dashboards and PSAP workflows. RapidSOS partners with all major PSAP technology vendors to provide the integration through a simple software update. Contact RapidSOS and your software provider to get started.



Regola

CAD

Caller Location

Control Room Integration

Emergency Call Management

Public Warning

Regola is an ISV (Independent Software Vendor) specialized in designing, manufacturing, maintaining mission-critical platforms and software-level system integration (Radio comms, Phone systems, invehicle equipment, 3rd parties, etc.) for **Emergency Response Organizations** and **Public Safety Authorities**.



Regola's professionals are committed on customer intimacy, service rapidity, quality and efficiency of any provided solutions, while having

a DNA of innovators that anticipate modern demands and shape a technological vision projected towards the future.

Regola combines IT **software specialists** with **international domain experts** in its Teams, aimed at creating the perfect mix between technology and domain-specific complexities.

Regola offers a native **Hybrid Public Safety** approach that leaves Customers choosing any preferred environment(s) combination among SaaS, Cloud and on-premises.

Internationally acknowledged **certifications**, sector **standards** and **interoperability** patterns are essential elements of Regola and a guarantee of the quality of products and services provided.

Backed by an experience in the sector of **20+ years**, Regola operates as an **international technology supplier** and has the privilege of supporting its long-term partners and end-customers in **3 continents** (North America, Europe, Australia).

Unique CAD Suite

A **nextGen Cloud-native** Computer Aided Dispatch product family, able to provide intelligence at the PSAPs, interactive decision-making support, **offline user-experience**, interface to modern medias and external services, custom-defined Agency response configurations.

Proudly 1st in Europe and 2nd Worldwide to get the top-quality recognition of **ProQA Paramount TITANIUM Certified** for its seamless integration with internationally-validated call taking protocols (Fire - Medical – Police - Multi-Discipline) produced by Priority Dispatch Corp. and regulated by the International Academies of Emergency Dispatch (IAED).

Explore the multi-modular and Agency-specific software solutions:

• Unique CAD, Remote Light CAD, Mobile CAD & Event Reporting Context-driven CAD for Control Room, Stations, remote working positions, tablet and sat-nav apps.

• Unique **One** for unified Call taking, as well as Multi-Agency

• Unique **EMS** for Ambulance and Emergency Medical Services

• Unique **Fire** for Fire Brigades

• Unique Police for Police & Law Enforcement

• Unique Crisis for Civil Defense, as well as Crisis & Disaster management

Unique Care for healthcare continuity / low-acuity management

Emergency Mobile Link

A **real-time Web-based** emergency mobile link (EML) providing dynamic location acquisition (HTML5), multi-party chat, multi-lingual operations, multiple-choice answers, document sharing, picture sharing, live video streaming, inter-agency and cross-responders operations and more.

Selected by the Italian Authorities as the official **nationwide service for** the **deaf** people when **accessing 112**, EML specializes on the ability to bring enhanced and richer data to the PSAP(s), extending the range of operations with live communication and dynamic eyes on scene evidence, without the need of downloading nor any pre-installed Mobile App in the device.

Alerting Crowds and Responders

A comprehensive multi-purpose and multi-modal system for Alerting, designed for:

- IoT-integrated intelligent early warning, in combination with ad-hoc integrations.
- Public broadcasting, notification and social dissemination to the population.
- Private alerting and mass mobilizing, for internal call-out and command-chain alerting.

ensuring compliance to standards and the official legislation, voted by the European Parliament, on Reverse 112 Public Warning as per DIRECTIVE (EU) 2018/1972, 17 December 2018.

Crisis & Disaster

A multi-modular emergency preparedness and management solution helping in Crisis situations or Major Incidents and addressing greater collaboration among organizations.

Designed to support a flexible and widely adopted command structure called GOLD-SILVER-BRONZE command chain, it provides collaborative response, pre-determined response plans, map-centric operations, resource monitoring, chat & alerting, bi-directional data sharing and more.

What are we looking for?

Regola is a highly skilled technology supplier willing to provide its professional solutions and services to **International Partners** looking for top-quality, comprehensive, versatile and competitive solutions.

It is in the nature of Regola working in synergy with other technology suppliers and complement each other solutions, exploring new trends and anticipating functional demands.



Saab AB

CAD Control Room Integration

Emergency Call Management

GIS

Public Safety

Saab serves the global market with world-leading products, services and solutions within military defence, civil security and emergency services. Through innovative, collaborative and pragmatic thinking, Saab develops, adopts and improves new technology to meet customers' changing needs.







The SAFE public safety unified control room solution is created in partnership with the blue light market enabling streamlined workflow and business process management. SAFE is already in operation in over 35 mission-critical control rooms across Europe and U.S.

SAFE > Control, Connect, Communication

The unified platform

SAFE is a truly unified platform for mission critical incident and operations management. The solution replaces legacy disparate solutions, such as C&C, ICCS, GIS, CRM and Mobile data with a single modern platform, providing a complete control room feature set within a single user interface.

SAFE empowers users to make more informed decisions, faster. The solution increases resolution at first contact, improves customer satisfaction and enables resources to operate more efficiently.

At the heart of SAFE is a powerful workflow based rules engine and user interface tool, enabling tailored configuration to meet business process and workflow requirements of individual customers. Organisations can evolve workflows and designs as their demands grows.

Dynamic Decision Support

SAFE supports models such as THRIVE (Threat, Harm, Risk, Investigation, Vulnerability and Engagement) to help users to assess the needs of victims and determine the most appropriate level of response.

SAFE assimilates information from multiple data sources and automatically flags relevant information to the user, such as repeat victim, antisocial behaviour hotspot and mental health sufferer.

SAFE can provide questions and prompts to advice users dynamically, based on knowledge the system learns from real-time background searches, data entry, location details and contact history.

A sophisticated recommendation capability considers multiple parameters to help users quickly determine the most appropriate response and resource.

Features:

- Multi-channel public contact
- Intelligent contact history
- Adaptive search and decision support
- Configurable Workflows
- Customisable user interface
- Fixed / Web / Mobile working
- Share information and self-serve
- Advanced GIS and event triggering
- Real-time business intelligence
- High Availability open architecture



ShadowFocus

eCall Emergency Apps Emergency Call Management Specialised Consultancy Third Party Services

ShadowFocus Consultancy was formed in 2014 due to demand for its founder's unique skills and knowledge in the implementation of Intelligent Transport Systems and Services (ITS) within an Emergency Services operating environment.

We support the development of effective partnerships between

Emergency Services customers and suppliers of ITTS, so that technical
solutions are developed that will be effective within the operational
realities of the Emergency Services. This includes the development of eCall services, both public and private,
along with supporting the deployment of effective technical solutions for the emergency services.



Sklls

Big Data Disaster Management

Emergency Call Management

SKLLS AS is an advanced simulations and integrations technology company passionate about helping emergency response centres educate and support dispatchers. Our premier AI communication training technology replicates emergency callers from any given scenario. Dispatchers train by engaging in realistic, simulated phone conversations with the program.



HiSklls training methodology takes new operators to full on-the-job experience faster than any other available educational and operational support platform. It is ideal maintenance for seasoned operators and has valuable functionality within recruiting. With leading performance tracking capabilities integrated into the system, you can define your centre's KPIs and monitor the performance levels of individuals and teams. Sklls is cost-effective compared to currently used training solutions on the market, increases the volume of practice possible, and make emergency dispatchers more comfortable and prepared from their very first day.

The user experience

With HiSklls, new employees are able to rapidly learn and internalize procedures and communication protocols. HiSklls is accessible for users on any device with internet access and is available 24/7. The simulator includes endless training scenarios to practice on, with the option to build your own. The portal is highly intuitive and comes equipped with advanced features, such as a grading function, session recorder, timer, testing tool, and more. Scenarios can even be run in voices of different ages, genders, and moods.

HiSklls video introduction: https://youtu.be/5eXCa1LEDDs

Trusted partner

The Sklls team has over 20 years of experience in advanced simulator technology development; including having delivered and supported more than 50 large Digital Twin or one-to-one simulator installations to market-leading customers worldwide. Sklls operates globally with headquarters in Stavanger, Norway. The simulator was created in collaboration with the Regional Centre for Emergency Medical Research and Development in Rogaland and the medical PSAP in Stavanger, Norway. Additionally, the product's development was supported by organizations including Helse Vest, Helse Stavanger, Innovation Norge, and Safer. Together, these members contributed to the creation of the **Hi** Sklls communication simulator as a solution for emergency call centres looking to support their teams better and more efficiently.

Services and cost

We keep our services simple with just one product, the **Hi**Sklls Simulator. Our pricing is primarily based on the number of users and administrators at a given centre as well as which course libraries you would like to include. Give **Hi**Sklls a try and see if it's right for you: Reach out to us to request a free trial and a quote



Softil

Emergency Apps

Interoperability Solutions

Multimedia Comms

Next Gen Comms

Voice Comms

Softil is a privately held company headquartered in Tel-Aviv, Israel with offices around the world.

Softil is the leading enabler of IP communications solutions for mission-critical telecommunications products and services. Softil's BEEHD framework (SDK) is the key enabling technology behind a wide range of broadband and mission-critical communication solutions, devices, and products, as well as rich media applications for Enterprise and IMS/



VoLTE. With more than 800 major corporations across the globe as customers, Softil's many technological achievements include the pioneering of Voice and Video over IP, combining its unique expertise in standards-based signaling, multimedia and IMS. Softil's award-winning suite of developer tools ensures simplified development and earliest roll-out of new products to market.

- Experience. SOFTIL (Formerly Radvision TBU) has 25+ years of experience in the Voice and Video over IP (V²oIP) communication market, with a large and growing number of customers worldwide (more than 800 development partners). SOFTIL's customers include Avaya, Siemens, Capita, Cisco, Comtech, Ericsson, West/Intrado, Motorola, Nokia, Qualcomm, Samsung, LG, AudioCodes, Rafael, Elbit, SONY, Foxconn and many others.
- Leadership. With a large global customer base, SOFTIL is undisputed industry leader in broadband mission critical and IP communications technologies, developing Protocol Stacks and frameworks. The technology behind our award-winning developer tools is the foundation of the company's strong portfolio of carrier-grade unified communications products that deliver high-quality solutions and across-the-board connectivity, from dual-mode radios to LMR/MCPTT gateways to control room and dispatch systems to advanced MCX applications and devices to the MCX testing solutions.
- Standardization and Interoperability. SOFTIL is at the forefront of standardization of IP communication technologies from contributions to 3GPP, ITU and IETF standards to providing the most comprehensive SIP, IMS, VoLTE, and MCX Developer Solution available on the market. Softil is an active member of ETSI, TCCA, PSTA, iCERT, EENA and other industry organizations. Softil solutions had being tested at hundreds of industry interoperability testing events including all of the ETSI MCX and FRMCS Plugtests to the date.

- Innovation. SOFTIL is committed to keeping its products compliant with the evolving ITU, IETF and 3GPP communications standards, as well as continuing to add innovative media algorithms and flexibility for customization in order to ensure full compliance, thereby adding unique value for its customers, while keeping Softil SDKs fully backward compatible, allowing Softil customers to easily upgrade from one 3GPP release to another.
- Support and Integration. SOFTIL's support includes maintenance releases, including bug fixes and
 updates, technical support during your working hours, upgrades and training through the SOFTIL
 training program. SOFTIL's Professional Services team is available to help meet development and
 deployment needs throughout the entire product or service deployment lifecycle and to help integrate
 voice and visual communications into the network infrastructure or terminals.

Softil product portfolio includes:

- BEEHD Framework for developing SIP, VoLTE/ViLTE, and MCX communication solutions
- Enabling Technologies for developers of IP communications
- WebRTC Interconnect Framework

BEEHD MCX Framework:

Softil BEEHD solution provides a feature-rich, flexible and extensible MCX framework (SDK), including signaling, media, application logic and management, providing full interoperability with other MCX systems. It enables customers to tailor and tweak the user interface and the application without the need to deal with signaling or media complexities.

This revolutionary and unique software framework takes care of all voice/video/data communication requirements—from signaling to call control and media components. With media quality and user experience in mind, the BEEHD is easy to integrate and manage. Softil has the field-proven developer solutions and expertise needed — from network backbone to handheld mobile devices, terminals, purpose-build hardware devices, LMR/MCX gateways, control rooms, user-centric MCX applications, MCX testing solutions, train terminals/cab radios, in-vehicle devices, and more.

BEEHD is 3GPP MCX release 16 compliant and supports MCPTT, MCVideo and MCData, and all of the management interfaces. BEEHD supports multiple OS - Android, iOS, Windows, Mac, and Linux. The BEEHD offers number of unique algorithms, including some with special patents, to deliver best audio and video quality. BEEHD helps developers to accelerate time-to-market and reduce the effort.

Enabling Technologies for developers of IP Communication Solutions:

Softil provides enabling technologies for developers of IP communications that are used in today's Enterprise, ng911/e911/ng112, IMS/VoLTE, and Mission Critical Communication industries.

Our award-winning suite of Protocol Stacks (ToolKits/SDKs) includes SIP IMS, MSRP, ICE, Advanced RTP/RTCP, XDM and many others. Softil ToolKits provide the core technology behind rich media applications and products for the communications industry, and greatly simplifies the development of all types of VoIP, WebRTC, and LTE/5G multimedia applications and services.

Softil ToolKits are fully standards compliant, offer rich, flexible, multilayered and extensive set of APIs; feature modular design and exceptional market-proven performance. These toolkits offer wide range of optimization options, for performance, size and more; support for all major operating systems, but also easily portable via Common Core OS dependencies encapsulation. Softil ToolKits are open-source free, come with extensive, award-winning documentation; written in pure ANSI C code and come with the best-of-the-breed support.

WebRTC Interconnect Framework:

WebRTC Interconnect framework is based on Softil SIP, A-RTP/SRTP and ICE ToolKits and allows to connect WebRTC clients directly to SIP Enterprise systems using WebSockets and DTLS/ICE/SRTP/SRTCP multiplexing.



Syntony GNSS

Automatic Vehicle Location

Caller Location

Syntony is a company specialized in the design and manufacture of a complete range of PNT and GNSS products and solutions, from simulation to receivers.

Syntony is the result of more than 20 years of R&D in GNSS signal processing, radio frequency, electronics and offers its customers highly innovative products and software solutions.



Syntony's expertise is used in various industry domains, mainly space, defense, aeronautics, telecommunications, IoT and transport, as well as in various academic fields (laboratories, universities and research centers around the world).

Syntony is headquartered in Toulouse, France, with offices in Paris, San Francisco, New York and Montreal.

Syntony's network of distributors covers Singapore, South Korea, China, India, Australia, New Zealand, Israel, Germany, Norway, South Africa, Canada and the United States, and Japan

GPS coverage in a confined environment (Tunnels, underground etc ..)

SYNTONY has developed a system to simulate GPS (or GNSS) signals in a covered (or underground) environment, typically inaccessible to GNSS signals emitted by satellites.

It is a particularly innovative technology which has been tested and implemented in different metros and/or rail or road tunnels.

The SubWAVE system has been designed to emulate signals similar to the GPS ones corresponding to given locations. The GPS algorithms of the tracking devices will compute the position as if they were provided the signals by the satellites.

A video showing some performance measurement tests with TRAFIKVERKET in STOKHOLM on the use of SubWAVE in Södra Länken road tunnel, are available on SYNTONY GNSS youtube channel.

SubWAVE is not an "indoor location system". It provides GNSS and when compared with indoor location systems, SubWAVE offers the extension of an existing and robust system encompassing all operational applications for road system.

• It is a known and robust Universal Position System compatible with all existing applications

- It is a one way system, respecting the privacy of the users (SubWAVE doesn't know who are the users of the signals and has no communication protocol with them)
- It will be instantly adopted by the various systems (they have been designed to address GPS data)
- It doesn't interfere with other RF systems due to the fact that GPS frequency bands are only allowed for GPS services
- It offers a seamless outdoor/indoor transition for the GPS/GNSS based systems
- It can address different levels of services depending on the users system and applications
- It can easily update for future evolutions (as it is the case for outdoor GNSS systems)
- Once the « simulated constellation » is set on the existing RF infrastructure, there is almost no specific
 maintenance in the tunnel infrastructure and most evolutions can be implemented through SubWAVE
 racks for applications upgrades only without major interaction with the tunnel infrastructure
- It is a unique infrastructure to provide different levels of services to the user with a basic service freely available without having to subscribe anyway just as for outdoor GNSS

And as GNSS in the air, one can use it for many purposes and many use cases.

Some use cases do not necessitate any strong requirement in terms of performance, whereas some other use cases will.

This is the same for SubWAVE system in a confined environment

Receivers and Navigation Systems

Syntony offers a range of on-board GNSS receivers (SoftSpot), meeting high performance needs (Aero, Space, Trains) but also low-power applications (SoftSpot IoT).

SoftSpot is an SDR (Software Defined Radio) solution for customized high-performance GNSS receivers.

By design, Softspot enables complex and high-performance signal processing for multiconstellation signals, interference mitigation, anti-spoofing management, high-performance multi-sensor hybridization and can meet very demanding custom requirements.

Syntony can provide a complete product (SOFT and HARD) and/or only software components that can be integrated on a given hardware platform.

Syntony has also developed an offer of receivers dedicated to the IOT:

SoftSpot IoT is the perfect low-power GPS tracking solution by reducing the power consumption of onboard IOT devices when calculating positions and using the secure cloud to remotely calculate positions using GNSS signals.

SoftSpot IoT significantly reduces power consumption and enables higher position reporting rates.



Systel

CAD Disaster Management Emergenc

Emergency Call Management

GIS

Next Gen Comms

SYSTEL specialises in the delivery of command & control and integrated communications systems specifically to Fire and Rescue Services and Ambulance Services. Of our current 62 customers, 53 are in mainland Europe and a number of French Overseas Territories. Whilst five solutions are currently live in England and one in Belgium, others are being deployed in Scotland, Northern Ireland, Republic of Ireland. Collectively, our Solutions handle over 2,500,000 calls per year with the largest individually handling 400,000 per annum.



The Solution developed entirely by our team of engineers as a holistic, integrated systems to meet the end-to-end needs of our customers. Originally developed in 1987, it has undergone a number of iterations since its inception to take account of new requirements of our customers.

SYSTEL's solution incorporates the following key integrated components:

- Command and Control (CAD)
- Integrated Communication Control System and Telephony (ICCS)
- Geographic Information System (GIS) / Gazetteer
- Resource Management
- Predictive Dynamic Cover Tool
- Mobile Data Terminals and Appliance Mobilisation
- Information Management and Reporting System
- Interfaces to key third party systems

Key benefits:

- Multi-Agency and Interoperability -> Fire and Ambulance Services work together on the same systems, sharing the same back-office
- **High Availability** -> Resilience at site and system level
- Call Scripting -> Includes Fire and Medical scripts
- Integrated Communications -> Radio/telephony integrated in CAD

- Attribute Based Mobilising -> Flexibility in manning resources
- Flexible Resourcing Models -> Linked to attribute based mobilising
- Advanced Gazetteer -> Progressive searching and corporate gazetteer integration

Systel employs approximatively 140 staff at its headquarters in La Rochelle, France (comprising Software Engineers/Developers, Support technicians, Project Management Staff and Trainers) as well as 8 staff in Leeds, UK.



Techwan, an Everbridge company

CAD

Control Room Integration

Emergency Call Management

Resource Management

Techwan, acquired by Everbridge in 2020, is a Swiss company and is a leading provider of public and private safety and emergency solutions. Our Swiss-Made software suite SAGA offers a complete command and control solution:

- Situational Awareness dashboard with risk intelligence, weather data and custom feeds
- Emergency call handling system with call routing and dispatch management (CAD)
- End-to-end incident, crisis, and disaster management platform
- Decentralized command and control for mobile command centers and operations
- Resource and task management systems
- Highly interoperable with other 3rd party systems

The solution has been developed in close collaboration with our customers (police, civil defense, airports, ambulance departments, and the private sector) and handles more than 200 million events per year. SAGA was chosen by major public safety agencies in Europe such as the French National Gendarmerie to create the world's largest centralized CAD, with more than 6,000 workstations. The solution will be used for the Olympic Games in Paris in 2024. Other customers include the Geneva Airport, the Mairie de Paris, and the 144 medical emergency number system in Canton de Vaud and Neuchatel.

Unique Advantages of SAGA

- Service oriented (SOA) modular solution
- Multiagency emergency collaboration and management, allowing Law Enforcement, Fire, Civil Defense and EMS to be managed and coordinated on the same platform
- Available on desktop, mobile devices, and web clients with multiscreen capabilities
- Supports multiple languages and alphabets (Latin, Greek, Cyrillic, Arabic and Chinese)
- Provides support for: PABX and IPBX, radio TETRA, TETRAPOL, LTE, recording voice and video, Paging, SMS, GPS, E-mail, Fax, API, CCTV, and alarm networks



Telefónica

CAD

Control Room Integration

Emergency Apps

GIS

Radio Solutions

Telefónica is one of the largest telecommunications companies in the world in terms of market capitalization and number of customers. With its best in class mobile, fixed and broadband networks, and innovative portfolio of digital solutions, Telefónica is transforming itself into a 'Digital Telco'.



The company has a significant presence in 21 countries and a customer base that amounts more than 327 million accesses around the world. Telefónica has a strong presence in Spain, Europe and Latin America, where the company focuses an important part of its growth strategy.

Telefonica has more than 15 years of experience in the market of emergencies and public safety providing products and services to its customers. It is specialized in different types of solution for emergency centers, providing first solutions for the some of the most important emergency centers in Spain. Over 65% of emergency calls generated in Spain are attended using systems provided or powered by Telefónica.

Telefónica is also expert in deploying radio communications like **SIRDEE**, which is the communications systems (based on TETRAPOL) used by police officers and other security forces in Spain.

As a global service and communications operator and emergency system integrator Telefónica has a complete vision of the emergency process, from the service user to resource management.

In the process of implementation of Emergency Centers, Telefónica helps their customers in the following key tasks:

- Operations analysis based on service needs and the current situation
- Definition and planning of change management activities
- Cooperation with the agencies, in an effort to stipulate protocol and methodology
- Evolution of the Technological Platform
- Management of the complete incident cycle, by means of the appropriate channel, taking into account the various factors: (citizens, management operatives and intervention, and so on)

Telefónica, offers turn-key projects that include or may include the following phases:

- Process consulting
- Technology consulting
- Supply, installation and commissioning of the technology platform
- Data model customization
- Support and maintenance services

The Telefónica's Emergency Management Integrated System, called **SÉNECA**, is a platform designed to support the emergency management process occurring in the Emergency Operation Centers and PSAPs (112/911, Police, Firefighters and Rescue Services, Health Emergency Services, Public Safety Agencies...). **SÉNECA** offers the ability to attend emergency requests and quickly collect all necessary information to solve it. **SÉNECA** can integrate different technologies related with communication platforms (fixed and mobile phone, radio, SMS, video, etc.), audio recorders, GIS (via ESRI platforms), AVL systems, etc.

There are 5 operational products available in the SENECA Emergency Suite (SES):

- SÉNECA Multi-Agency (112/911)
- SÉNECA Health (Medical Emergency)
- SÉNECA Public Safety
- SÉNECA Fire & Rescue

SÉNECA consists of a set of elements (hardware, software, procedures, facilities, telecommunications infrastructure, and resources) that enable emergency management from various aspects:

- Receive emergency requests (demand management).
- Management agencies must respond to the emergency.
- Control and resource mobilization that resolved.
- Resource management and communication with them.
- Management of global emergency plans (definition, testing, etc).

• Generation associated reports, etc.

At a functional level:

- Solutions for all phases of operation: demand response and command and control.
- Module Reports and statistics for analysis and decision making.
- Attention and integration of calls from people with hearing disabilities.
- High degree of configurability and parameterization of the solution to the user profile.

At the technological level:

- Technological infrastructure based on market standards and industry.
- Email, phone, SMS, radio, IVR, fax, internet.
- Integration with leading telephony communications solutions and CTI.
- Integration with radio communications.
- Integration with call recording.
- Geographic Information System (GIS) fully integrated.
- Full integration with AVL and GPS systems.

A business level:

- Product evolving: mobility solutions, new channels (social networks, video call), including emergency simulators, etc.
- Strategic agreements with the best partners in the market.



Telent



A supplier of integrated mission critical ICT solutions for Public Safety Users, from Control Rooms to front line responders, including ICCS, CAD, Voice Recording, Mobile Data, epcr, Tetra & Paging solutions.

For project activities, we provide design consultancy, procurement, project management, installation & comissioning as well as extensive FAT, SAT & UAT Testing services.

For service support, we provide network monitoring, Customer Service Desk & On-site engineering support on 24/7 365 basis across Ireland & UK.

✓ Joe Howick
 Business Development Manager
 ✓ Joe.Howick@telent.com
 ✓ telent.com

Our customers include Health Service Executive National Ambulance Service, Irish Fire Service, N. Ireland Fire & Rescue Service, Maritime Coastguard Agency, Royal National Lifeboat Institute (RNLI), as well as various Fire Rescue Services and Police Services across England, Scotland & Wales.



Telespazio France

Caller Location

Emergency Apps

Public Warning

Specialised Consultancy

Telecommunications

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Stelespazio.fr/en/home

Head of Navigation Downstream Department

Axelles Pomies

Telespazio France contribution to the improvement of citizens' safety and security

We are convinced that a simple link between Man and Space is essential to our life on Earth, because Space is a key

technological and human enabler to protect the planet and its inhabitants. We have faith in Humankind and diversity, we believe in technology and skills development. We act on the basis of our founding values of Commitment, Innovation and Partnership.

Thanks to our historical legitimacy, our global expertise and our European dimension, we put the strength of two European Leaders and the agility of our human-sized structure at the service of our mission. Our ambition is to democratize the access to the space services of today and tomorrow, through an open logic of "Space On Demand". We bring together the skills and partnerships needed to provide the best solutions, in a market undergoing profound change.

Together with EENA and European Institutions, we support the development of innovative solutions for **European citizens' safety and security** in close cooperation with actors from the whole operational chains:

- Deployment of Advanced Mobile Location in Europe with EC HELP112 projects;
- Development of a system for monitoring the health of workers, which includes an **emergency communication functionality** based on **PEMEA standards**, with EC H2O2O WorkingAge project;
- Galileo Emergency Warning Service proof of concept, with EC GRALLE project;
- Galileo Emergency Warning Service consolidation and demonstrations, with EC STELLAR project;
- SBAS-based alerting capability demonstration in Sub-Saharan Africa, during the SBAS ASECNA project;
- SAR/Galileo Two Way Communication service prototype and demonstration, with the EC SERENITY project.

We also operate Cospas-Sarsat French Mission Control Centre, SAR/Galileo Service Centre and SAR/Galileo Service with CNES.

All of these efforts, all of these resources and all of these successes are enabling us to pursue our actions for the benefit of Europe's and the world's citizens, and helping to accomplish the noble mission of saving lives.

Telespazio France general description

As a key player in space infrastructure operations for more than 30 years and with a staff today of more than 435 experts, Telespazio France supplies value-added satellite-based services and applications covering all of the key domains of space, from telecommunications and Earth observation to navigation.

Telespazio France is the French subsidiary of the Telespazio group, a joint venture between Leonardo (67%) and Thales (33%). Based in Toulouse, Bordeaux, Paris and French Guiana, Telespazio France delivers its expertise and services to the main European institutional and professional stakeholders.

Telespazio is part of the Space Alliance together with Thales Alenia Space. The complementary capabilities of Thales Alenia Space in satellite systems and Telespazio in the services associated with them provides the Space Alliance all the assets needed to respond positively and effectively to the needs of the market, which today are increasingly focused on applications related to space technologies.

Telespazio is organized around three centres of excellence:

- Satellite Systems and Operations, in charge of operating our own space resources and systems, as well
 as those of our customers, and developing associated applications and solutions.
- Space Telecommunications, offering a broad portfolio of connectivity solutions and services.
- Geo-Information, delivering a unique range of radar and optical satellite imagery, and land- and oceanmonitoring products and services.

Today, more than ever, Telespazio France is a true innovator, transforming what were once just possibilities into real services available to an increasingly wide audience worldwide.



Unblur

Artificial Intelligence Cloud Services Disaster Management Emergency Apps GIS

Unblur has created IRIS Core to help Incident Commanders from Emergency Services make safer and faster data-driven decisions during an incident.

IRIS Core is a software platform that allows commanders to visualize what is happening, and to know where the teams are at every second and what tasks are being done. Commanders can aggregate and share information like decision logs, messages and risk assessments between



teams making coordination much easier. Our platform connects all the data sources available displaying them on a simple and intuitive interface, in order to help Commanders execute an efficient response.

IRIS Core captures multiple sources of real-time data, such as live video feeds and geolocation of vehicles and teams, together with static data such as maps, blueprints, pre-planned information and other databases. It integrates all of this data with Incident Command System (ICS) command and control tools, enriching them and allowing Incident Commanders manage the incident from one single place. With the rise of a technological and connected world new tools like wearables, sensors, drones, GIS, have appeared to enrich commanders view of the incident

However, new technologies are causing saturation of commanders by large amounts of fragmented and unfiltered data, obstructing the decision-making process. In addition, coordination becomes an issue, because different teams have different tools, meaning they have different understanding of what is happening in the incident.

IRIS has been developed with first responders around Europe, ensuring that all features are relevant for field commanders and that it has the best user experience design. The IRIS product team are constantly in contact with IRIS users, ensuring that the platform evolves with users' feedback and needs. IRIS is currently being deployed at Mid & West Wales, Hereford, Worcester and Shropshire FRS in the UK.

We are available to showcase our technology and share our experience from deploying technology in Emergency Services. If you are interested reach us to learn more about how we can help you.



Vitkovice IT Solutions

CAD

Control Room Integration

eCall

Emergency Call Management

GIS

VITKOVICE IT SOLUTIONS has more than 25 years of experience and knowledge in building complex systems with several integrated solutions for crisis management. Our software solution is deployed at all 112 PSAPs in the Czech Republic. We also provide solutions for effective cooperation and coordination of emergency services. Due to our experience in many stressful situations during natural disasters and the COVID-19 pandemic, our system is designed to handle extreme



stress. A sophisticated stress testing methodology is used to support this solution. The systems architecture is set up so that the potential failure of a key node does not severely limit the availability of emergency services. We continue to work on improving system availability during high load or technology failure. We are participating in Europe-wide projects for research and development, our company is a leader in implementation of eCall.

We currently provide:

- Computer Aided Dispatch System
- GIS with Caller location solution
- eCall solution
- Advanced Mobile Localization (AML)
- SMS communication
- Mobile applications
- Full telephony and other communication systems integration
- Integration of all IRS to one working environment
- Video calling using WebRTC protocol

The best you can find in the world of IRS is what we have created – the Integrated Rescue Center – all dispatch systems working together are tightly integrated and working together, all resources are connected and working together to the highest standards available. Fully efficient in terms of results and costs.

The PSAP system now provides support to other components of the integrated rescue system in locating citizens in emergency situations. We provide an interface for the transfer of AML positions to the individual operational controls of the integrated rescue system components.

We are supporting all major PBX systems which are certified for PSAP systems.

Our goal is to help PSAP operators with their mission to help citizens in emergency situations. We hear what our customers say and build solutions that are optimal for them.

We regularly discuss new ideas and future directions with our solution operators. At the moment, the main long-term topic of these conversations is the NG112 issue.



Xolaris Civil Security AB

Big Data Calle

Caller Location

Disaster Management

Public Warning

Xolaris' mission is to enable our customers to gain insights from mobile networks to save lives, every day. We have made sure that public safety authorities and law enforcements responsible for civil security can lead the way and make the right decisions fast when it is time to act. Our solutions deliver strategic insights by structuring and analysing massive dataflows, movements and positions based on real-time analytics of mobile networks. Proven under extreme pressure, our products prevent,



predict and help neutralize criminal activity as well as guiding people to safety during disasters.

Our Swedish heritage has given us our strong belief that people always come first, and teamwork, honesty and trust is what has ensured us long-lasting relationships with global customers and partners.

Our story began as Mobilaris National Security, a part of the Mobilaris Group. And as time went by, Xolaris became independent with the purpose to develop even better products and continue our work for a safer world.

Our product portfolio consists of three systems for authorities:

Xolaris Eunomia Monitoring Center

Eunomia is a tracking and behavioral pattern analysis tool engineered to detect and combat criminal and terrorist activity through mass location, cellular traffic data interception, machine learning, call data records and historical data analysis. Eunomia provides invaluable actionable intelligence supporting law enforcement and national security agencies.

Xolaris CIWS

Xolaris Community Information & Warning System (CIWS) provides the right information at the right time and location to citizens during emergencies. Receive information in your own language, based on SIM-card nationality and unique location. CIWS has a proven record worldwide, successfully applied under the most challenging crowd conditions on earth. CIWS is a highly scalable solution and can manage up to 10.000 SMS per second.

Key functionalities:

- Intuitive and interactive web graphical user interface
- Calculates the predicted cell coverage in and around the alert area to optimize geo-accuracy
- Multi-language support based in SIM card nationality
- Alert messages over SMS and Cell Broadcast
- Multiple parallel emergency campaigns (50+) independent of geography
- SMS throttling algorithms to optimize network performance
- 10.000 SMS per second
- Statistics; how many phones received message, when and where
- High availability active-active solution for high capacity and redundancy including geo-redundancy

Xolaris REACT

Xolaris Realtime Emergency Analytics Communication Tool (REACT) is a decision support platform engineered to assist governments and health authorities to detect, monitor, trace and ultimately help combat spread of infectious diseases. Xolaris REACT combines real-time collecting of anonymous cellular data from operator networks, machine learning and historical movement data to provide guidance and situational awareness enabling governments and authorities to plan and follow-up preventive measures.

XOLARIS REACT is:

- Handset independent meaning any phone turned on is contributing to data collection and situational awareness
- Completely based on mobile network data in real-time (anonymized if required by law)
- Requires no interaction by citizens, no need to download or install anything on handsets
- All phones in operator's networks contribute to analytics result thus providing an unprecedented quality in the analytical quality.

The XOLARIS REACT platform:

- Accurately measures the number of people in a given location at a given time now or in the past.
- Generates heatmaps and density measurements to see how the population is distributed now and in the past to understand travel routes, movement over time (day/night) and places of congregation in advance of a potential crisis in order to e.g. determine evacuation plans.
- Delivers coordinated, prompt, reliable, and actionable information over SMS or Cell Broadcast to the whole community or groups in different geographical areas to avoid or manage potential risk areas.
- Identifies phones that has been travelling and visited infected areas and can inform by SMS if needed
- Automatically detects phones travelling into areas with curfews or into zones with high risk of infection.
- Detect movements of individuals and groups anonymously, in order to monitor whether they are self-isolating or following authorities' directives to not travel.
- Automatically informs people who moves more than e.g. 10 km if curfews are in operation.
- Identifies "hot spots" congregations of people



Zachranka

Caller Location

Emergency Apps Next Gen Comms

Public Warning

We are Czech based start-up company focused on solutions for emergency call systems. Our main expertise is based on our unique knowledge of emergency service operational management systems, our strong technical background, and a highly-individual approach to meeting our clients' requirements through focusing on long-term partnerships and innovative creativity.



Aplikace Zachranka is the NG-SOS system, which significantly

facilitates and streamlines both patient communication with the operations center and managing the entire rescue operation. The system uses all modern communication means to ensure the exact location, type of emergency and patient identification all take place seamlessly, and includes WebRTC technology for image transmission directly from the incident site. The system consists of five components that can function as a whole, or as separate modules.

- Mobile app for callers
- Web-based app for callers
- Online dispatcher web portal
- Advanced online tool for app management
- Unique automation of processes with API for CAD integration

The system was tested and developed in cooperation with EMS professionals and provides the most accurate information about the caller by providing their location updates, complete medical profile, and basic preclassification data, including next-of-kin contacts, mobile network, battery status and more. System also provides an interface for online chat and video streaming. By combining all of this information provided, EMS crews can reach the patient in a far shorter period of time, thereby increasing the patient's overall chances of survival. System also supports communication for callers with speech disabilities and was also developed to fully support Voice Over technology for blind users.

Our app is the official nationwide Czech, Austrian and Hungarian app, and we provide our technology for mountain rescue operations in Slovakia. The concept behind this is for a universal platform with localized apps specific to each country and linked through a single interface, so that the app not only works in the user's home country but also when they travel abroad for business or on holiday.

It also features an interactive First Aid guide with CPR, which functions as an intuitive user manual. Plus, users can register new AED locations through the app. One of the most important features is that it's an extremely easy way for local authorities to effectively warn the public in the event of large-scale emergencies – via push notifications, automated calls or text messages to all users. This unique combination of emergency call function, first aid procedures, AED database and reverse emergency notification system has received excellent ratings from both experts and the wider public. The NG SOS system is built on a robust backend solution that enables direct implementation within local operations management systems. All available functions can then be managed directly within the CAD system currently in use. The simple API has already enabled direct implementation within CAD systems in Austria, the Czech Republic, Slovakia and Hungary.

Also available online: www.companies.whoiswho.eena.org

This publication provides an overview of companies that are part of the EENA community.

For further information, please visit our official website at www.eena.org.

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