Law Enforcement

Selex ES
A Finmeccanica Company

The complexity of law enforcement activities is continuously increasing mainly due to cultural changes taking place in society, economy, politic, and rise of security needs alongside the evolution of threats and offensive capabilities.

Many parts of the world are facing increased economic and political pressure. Crime is increasing in these areas, but at the same time the budget available for Law Enforcement is being reduced. The need to do more with less has never been more important. In addition, many countries are facing cyber security challenges that are growing in scale and sophistication.

All of these issues demand a considered approach - an increase in capacity would help to prevent and deter crimes and an effective capability to react and deal with illegal activity. Such complex scenarios drive Law Enforcement operations towards different levels of intervention and a multidisciplinary approach able to reduce crime and, through the collection, interpretation and timely dissemination of intelligence, make reaction times more effective.

Leveraging a breadth of expertise across both defense and civil domains, The company has developed a range of technology capabilities to effectively support Law Enforcement Agencies in such complex scenarios and provide them with solutions able to enhance intelligence, surveillance and reaction capabilities.

Key features include:
- Long-standing experience in the Law Enforcement and Military sectors
- In-house development of key technologies for use within the security market
- Strong technological integration expertise
- Consolidated alliances with world-leading companies

In this context, the company has developed the Integrated Law Enforcement Solution, designed especially for Police Forces and Investigative/Forensic departments. This integrated capability is able to support agencies through a combination of physical and cyber security, mission critical communications and social security.

PHYSICAL SECURITY AND TERRITORIAL CONTROL

Every day people face potential threats to their own safety as well as to community security. Law Enforcement Agencies require constant awareness of what is happening in the region. Security patrols, surveillance and determined intervention increases the effectiveness of operations and builds confidence in Police Forces.

The company's solutions fully address these requirements, with solutions ranging from from Mobile ANPR and Patrol Support Systems to complex real-time scene acquisition sensors. We can design, integrate, install and deliver a complete range of physical security and territorial control systems to fully support Police Forces in both day-to-day activities and emergency situations.

Physical Security And Territorial Control	
Mobile and Fixed ANPR System	The **MPH-900** is a device that reads and recognizes plates of moving or stationary vehicles from a moving police vehicle: the patrol officer simply drives the car and acknowledges alarms. Everything else is automatically performed by the system and the attention of the officer is captured (by a sound signal) only if a signaled (wanted vehicles by means of stolen cars, no tax payment, wanted person, etc.) car is recognized. Capability of reading the license plates of vehicles traveling at high speed (> 260km/h).
Patrol Support System	The **Patrol Support System (PSS)** hand-held provides the ability to keep track of all the activities involved in patrol missions by centralizing information received from the field (passports control, license plate reading, fingerprint verification, etc.). The PSS system comprises a set of applications running both on the device and at central and peripheral levels and including: biometric identification, portable ANPR, electronic identity reader, data and voice connectivity, image/audio capture, georeferenced operations.
Video Surveillance and Video Analysis Systems	The company provides systems able to manage and control diverse real-time video technologies including both best-of-breed third party cameras and in-house developed Electro Optical sensors able to provide medium to long-range surveillance in optical and infrared domains. Each video stream can be instantly replayed and recorded for later investigation purposes. The Video Surveillance System is integrated in the **Physical Security Management System** capable to analyze videos to discover temporal, spatial or more complex events (i.e. virtual fences, objects tracking, people counting, etc.).
Access Control and Perimeter Intrusion Detection Systems	The company's **access control systems** manage the simultaneous entry of vehicles and people through automated identification and integration towards the Control Center. In the same way, multi-technology fences and barriers are closely integrated in the Control Center thanks to the Physical Security Management System.
UAS and micro UAV	The company provides advanced **Unmanned Aerial Systems (UAS)** to enhance situational awareness and territory control capabilities for both medium-range surveillance (thanks to its ASIO and CrexB micro UAV platforms) and long range monitor with its Falco UAV.

CYBER INTELLIGENCE

Undoubtedly, the Internet has proved to be a communication phenomenon for todays society, giving people the opportunity to share information, contact virtually anybody and do their shopping and banking - all at any time and with disregard for physical location. Unfortunately, the freedom that is afforded by the explosion in use of the Internet has also created a new criminal opportunity.
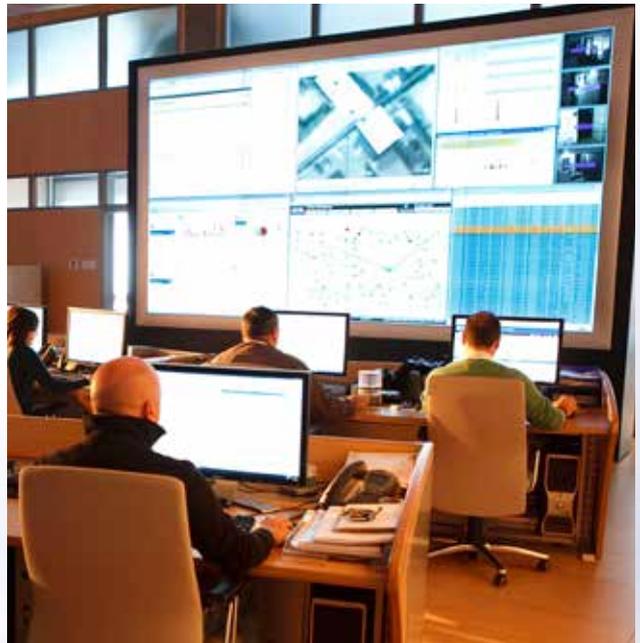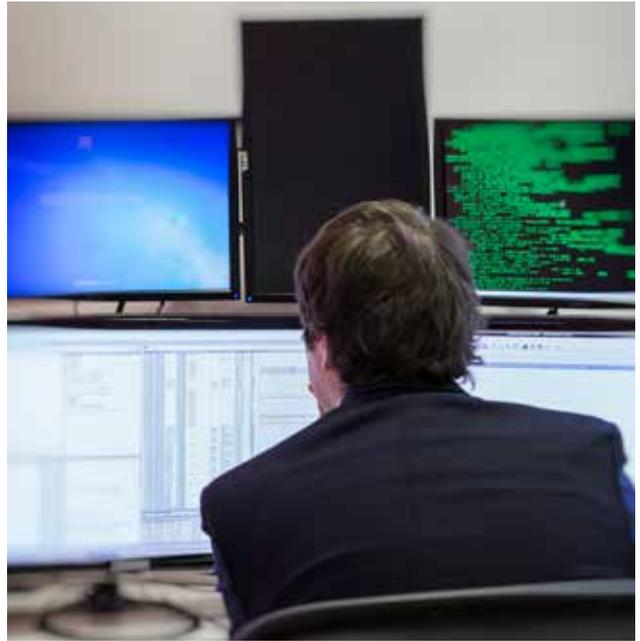
Cybercrime represents an extension of existing criminal behaviour (theft etc) but the traditional protection method of waiting for an attack is no longer possible. Protecting people, assets and data against cyber-crime requires a proactive strategy based on intelligence and information analysis.

The company has developed an integrated hardware and software platform to provide Intelligence services through data mining, data analysis and algorithms (developed in-house) on both public and private information sources.

Thanks to the platform, Intelligence Agencies are able to identify trends and patterns that may be related to a threat against the safety and security of citizens and countries.

Through the monitor and analysis of public Internet sources like social network, newsgroup, blog, forum, feed and websites, alongside the most sophisticated semantic algorithms and the ability to index and search through the Darknet and the Deep Web, the security analysts can look for specific topics of interest and retrieve information and alerts (early warning) about the potentially harmful actions and events that are still in the preparation stage, or initial implementation.

This allows Intelligence Agencies to consider the adoption of countermeasures and limit the risk of a damage.
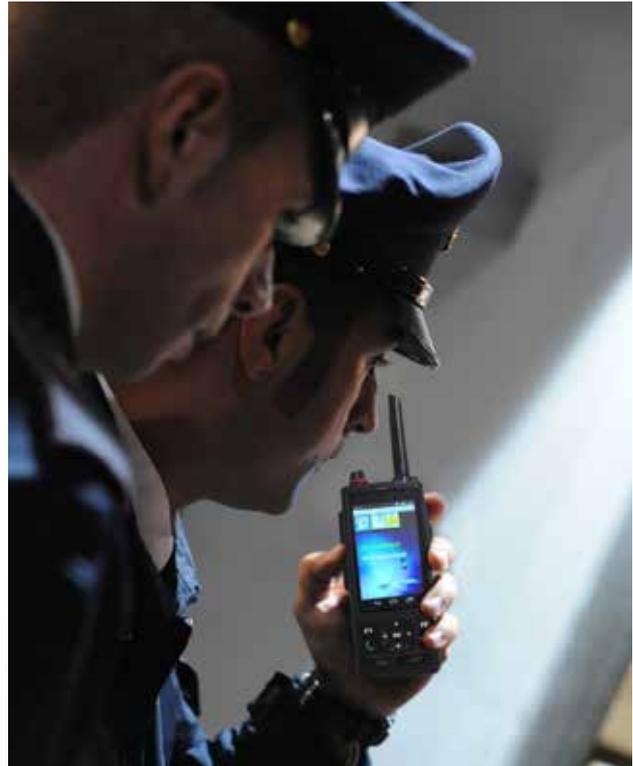
MISSION CRITICAL COMMUNICATIONS

Critical communications is a key enabler for front-line emergency services for Law Enforcement Agencies who require fully integrated information and communications solutions that are both reliable and robust, designed to operate in mobile environments and during critical and emergency situations. Increasingly the proliferation of broadband capability throughout the world is driving the need for mobile enhanced data systems to be used jointly with already installed professional radio networks.

We develop turnkey multi-technology network solutions that integrate a range of wired and wireless communication technologies – including TETRA, DMR, next generation wireless broadband radios and backend services as well – and guarantee both the best of communication technology in each area and assure the evolution of networks in respect of the past investments.

The PERSEUS CSP network infrastructure enables the integration of multi-technology networks with unified users and application management, supporting the progressive evolution from narrowband to broadband professional communications networks.

Mission Critical Communications	
LTE	**LTE** infrastructures support data intensive Law Enforcement applications. The LTE Core network can guarantee standard enforcement and openness to professional applications for private networks.
TETRA	The **"ElettraSuite ADAPTANET®"** is a complete modular, scalable and flexible family of TETRA systems, satisfying requirements ranging from single-site to national networks. The system supports TEDS (TETRA Enhanced Data System) for technology enhancements with full support for IP communications, and is complemented by terminals dispatching solutions and service applications.
DMR	The "dual-mode" **ECOS-D DMR** network operates both in analogue and digital modes. This unique feature allows existing analogue terminals to be used whilst supporting the introduction of and migration to new digital terminals as required. Simulcast DMR networks can be used to support first responders' communications over large areas using the same physical channel, owing to the 2-slot TDMA air-interface structure.
PMR Terminals	Vehicular and Handheld terminals allow Customers to leverage the mission critical network infrastructures and integrate. In addition, the **PUMA T4** handheld introduces a new concept of handheld device, combining in a single device the reliability and security with new value-added services. Modular design characterizes the new handheld where an Android based general purpose core hosting computing, ancillaries and MMI functions, integrates with a radio communications provided by a modem component that can be delivered in different versions (TETRA, LTE).

COMMUNITY SECURITY POLICING

Community Security Policing aims to develop 'security awareness' within communities, enabling citizens to cooperate and take some ownership of risk management in public areas (city squares, recreation areas, stadiums etc.). It focuses attention on people living in urban and city environments, supporting them by addressing everyday security concerns.

Public areas such as parks, squares, stations, streets and stadiums can be equipped with a wide range of systems (video cameras, microphones, proximity sensors, etc.) capable of detecting 'panic events' such as gun-shots and screamin. Citizens are involved by means of a simple smartphone app, where people can press a button to alert an Integrated Control Room, raising the alarm and requesting appropriate assistance.

In this way each citizen plays an active role as part of an extended security network to improve both real and perceived security.
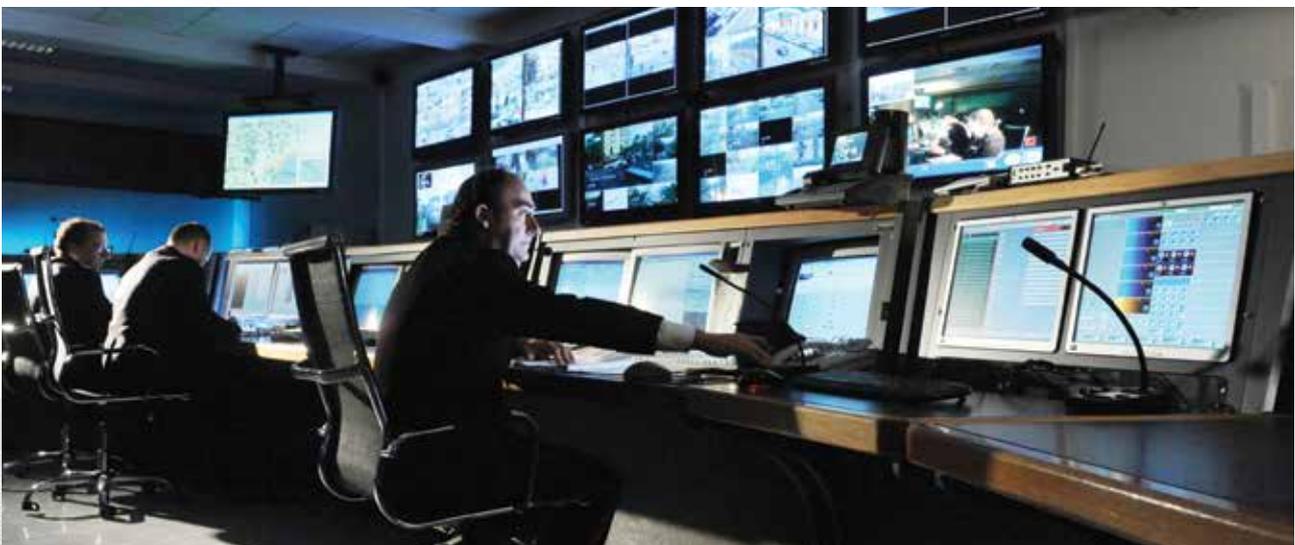
INTEGRATED CONTROL CENTRE

The Integrated Control Centre manages the above capabilities to prevent or react to threats. Through the Integrated Control Center, threats are identified and the optimal counter-measure established thanks to the integration of different Command and Control modules.

Among these modules, the Physical Security Management System (PSMS) has been specifically designed to perform analysis, data fusion, and event/incident correlation in order to develop and maintain complete situational awareness and help support the appropriate reaction to potential threats.

Thanks to integrated systems, the PSMS is able to gather all data coming from on-field fixed and mobile sensors (PIDS, AC, Video Surveillance, UAVs), correlate events and drive operators through the resolution of the incident thanks to the automated workflow system (Orchestrator).

The Integrated Control Centre can be deployed in one or more physical sites, depending on the level of required reliability and resilience. When a local and enhanced situational awareness is required, Law Enforcement Agencies can take advantage of the Rapid Deployable Operations Support Solution. Based on full featured vehicles the solution offers a complete operational control room inside the vehicle and can integrate both existing and innovative sensor and communications technologies.