

LEONARDO CYBER & SECURITY SOLUTIONS

# LAW ENFORCEMENT SOLUTIONS



The complexity of Law Enforcement activities is continuously increasing mainly due to cultural changes taking place in society, economy, politics, and rising of security needs alongside the evolution of threats and offensive capabilities.

Such complex scenarios drive Law Enforcement operations towards different levels of intervention and a multidisciplinary approach to reduce crime. The use of advanced tools and technologies that enable the collection, interpretation and timely dissemination of intelligence, make reaction times more effective and efficient.

Thanks to its expertise across both defense and civil domains, Leonardo has developed a range of technology capabilities to effectively support Law Enforcement Agencies providing them with cyber secure and secure by design solutions able to enhance intelligence, surveillance and reaction capabilities.

## BENEFITS

- 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.



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

The company's offering fully address these requirements, by means of solutions ranging from sensors, such as plate readers, to coordination and control, situation awareness and intelligence systems.

## Physical Security solutions

ANPR	Leonardo product family of <b>ANPR systems</b> includes fixed and covert sensors (embedded in street lamps, barrels, speed trailers), mobile sensors mounted on police cars able to recognise plates of moving and stationary vehicles from a moving police vehicle.
Surveillance and Analytics	The company provides systems to manage and control different real-time video technologies. Each video stream can be instantly replayed and recorded for later investigation purposes. Video streams (as well as audio streams) can be processed by company artificial intelligence based video and audio analysis system named Ganimede for enhanced detection of dangerous or abnormal situations. Video surveillance and analysis systems are integrated in company <b>PSIM SC-2</b> and in <b>coordination and control platform X-2030</b> .
Situational awareness	Data generated by sensors and analytics are collected by Leonardo platforms that provide security operators with tools to enforce situational awareness and perform sophisticated event management.



Without doubt the Cyber domain has become an integral part of everyday life. The Cyber dimension has turned into an important source of information and a new dimension to carry out added value activities. Cyberspace control is important both for cybercrime prevention and counteraction, but also for the effective physical event management. Social media monitoring can provide useful information complementing the traditional channels.

Leonardo 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. At the same time information coming from the cyber space can enrich the scenario of an event being managed increasing the overall situational awareness.





Critical communications are a key enabler of the front-line emergency services for Law Enforcement Agencies who require fully integrated information and communication solutions which need be reliable robust, and designed to operate in mobile environments and during emergency situations.

We have developed turnkey multi-technology network solutions that integrate a range of wired and wireless communication technologies –including TETRA, DMR, LTE, 5G and backend services as well –and guarantee both the best communication technology in each area and ensure the evolution of networks in respect of the past investments.

The CSP (Communications Service Platform) enables the integration of multi-technology networks with unified users and application management and it is at the heart of Leonardo RIM (Italian acronym for Hybrid multi radio vector network) supporting the progressive evolution from narrowband to broadband professional communications networks. CSP implement the LMR portion of 3GPP standard LMR –IWF (Interworking Function) allowing the integration of 3GPP MCX applications.

## Critical Communications solutions

LTE/5G	<b>LTE infrastructures</b> support data intensive Law Enforcement applications. Leonardo has a system integration approach providing third party infrastructure to supply extensive coverage, integration of commercial networks, hot spots (with tactical system or network-in-a-box configuration).
TETRA	The <b>Adaptanet®</b> is a complete modular, scalable and flexible family of TETRA products, satisfying requirements ranging from single-site to national networks. The system supports technology enhancements with full IP communications, and is complemented by terminals dispatching solutions and service applications.
DMR	<b>ECOS-D and ECOS-E DMR</b> solutions are characterized by a high degree of scalability and flexibility that allows selecting the most suitable configuration for Customer's requirements. The same radio base station can operate in <b>DMR Tier II</b> , with simulcast option and dynamic <b>analogue FM</b> , or <b>DMR Tier III</b> in simulcast or cellular configuration.
Push-To-Talk over cellular	Push-to-Talk over cellular is the way to provide professional services over broadband networks. Leonardo <b>CSP MCX platform</b> is a complete solution fully <b>compliant with 3GPP</b> standards enabling mission critical communications <b>over LTE and 5G</b> . Designed to take advantage of broadband mission critical enhancement, MCX can also be deployed as an <b>OTT (Over –The-Top)</b> application on an existing commercial network and provides an fully featured Android client and a web based dispatcher.



Coordination and situational awareness capabilities are key factor for effective Law Enforcement. Leonardo provides different platforms characterized by the same technological approach supporting law enforcement operators in incident management and coordination activities.

Leonardo platforms, ranging from an advanced dispatcher to a complete situational awareness system, are characterized by flexibility, scalability, interoperability and complete integration with professional communications.

## Control Center solutions

MCCR  
Mission  
Critical  
Control Room

A **multi technology dispatcher platform** providing unified communications services for narrowband/ broadband integrated networks. Featuring a single or multiple screen web based console it provides professional telephonic and supplementary services and the possibility to leverage multimedia for broadband communications.

SC2

Physical Security management oriented platform 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).

X-2030

A new model of control room system based on **C5I concept (Command, Control, Communications, Computers, Cyber & Intelligence)** and system of systems paradigm. X-2030 Integrates operational procedures, decision support processes, radio communications and leverages technologies for a superior situational awareness and informed decision making. Designed to integrate existing systems, provides an innovative user interface based on virtual assistant and natural language understanding.





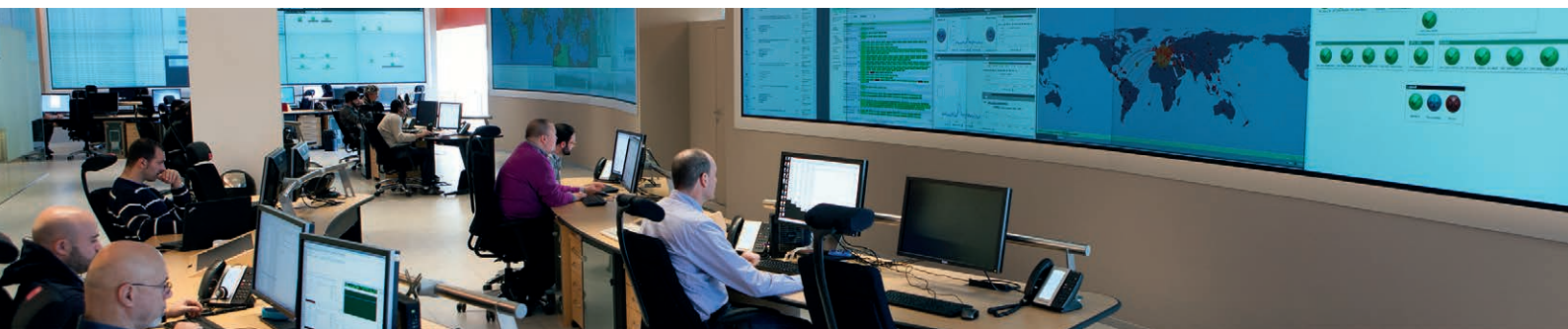
The increasing reliance of existing platform on software and the extensive interconnection of network and systems enlarge the potential cyber-attack surface and exposure. Networks and applications need to be cyber protected and resilient in order to ensure the business continuity required by law enforcement organizations.

Leonardo offers a portfolio of services and solutions to identify, prevent, detect and respond to cyber-attacks that could affect our customers, offering a holistic approach to Cyber Security according to the NIST framework.

Cyber solutions	
Risk advisory & consulting services	Leonardo consulting services are focused on supporting organizations in: governance management, definition of procedures, compliance with standards and regulations, penetration tests and risks management, vulnerability analysis, assets management.
Design and build services	Design & Build services are based on a proprietary approach and an established process for designing and building security management infrastructures (SOC, CERT, IOC)
Managed security services	Our <b>Security Operation Centers (SOCs)</b> provide a flexible and comprehensive set of management and monitoring services that can be quickly tailored around an organisations' specific needs
Cyber security platforms	<p>Leonardo services (as well as Leonardo projects) take advantage of in house designed platforms helping security operators in their task</p> <ul style="list-style-type: none"> <li>• <b>Cyber information superiority suite</b> (composed by a combination of platforms providing threat intelligence, end point protection and malware analysis) is based upon Information Superiority concepts applied to the cyber domain to obtain valuable and actionable information, which can be used to rapidly implement targeted defence and containment actions</li> <li>• <b>Cyber Situational Awareness system</b> is a complete ecosystem specifically designed to keep an organisation's security teams and executive profiles informed of what is happening in terms of Cyber security supporting decision making and security investigation processes.</li> </ul>

The evolution of Cyber threats is determining the need of a diffused awareness on cyber security among end user population and the necessity of constant training and exercise for cyber security specialists. Leonardo can support his Customers with both a cyber-training offer and platforms leveraging innovative technologies and learning methodologies

Cyber Training	
Cyber & Security Academy	An innovative facility in to promote cyber security awareness increase competencies by means of a complete training portfolio delivered by expert trainers leveraging advanced platforms for hands on exercises.
Cyber Trainer	Cloud-based platform to train and keep up to date both security professionals and non-expert users. Managing the whole training process (training needs, formal learning, exercises, certification)
Cyber Range	Integrated environment for immersive realistic simulations of cyber attack/ defense scenarios and advanced simulation operation to test cyber resilience of system and infrastructures.





## HIGHLIGHTS

Complexity is what characterizing the work of law enforcement operators. Changes in social, economic, cultural and even technological contexts are generating hard challenges for law enforcement community.

Taking advantage of his long lasting experience in key applications characterizing law enforcement sector, Leonardo can design and deploying integrated cutting edge technological solution that support security operators in their activities in day bay day operations and in emergency situations.

## ABOUT CYBER AND SECURITY SOLUTIONS DIVISION

With experience in information technology, communications, automation, physical and cyber security, Leonardo Cyber and Security Solutions Division generates synergies by joining its expertise to support enterprises, agencies, public safety, security and emergency organizations. Our offer includes solutions for the security and protection of critical infrastructures, transport infrastructures, major events and stadia, cyber security, integrated networks systems and secure communications that enable reliable and efficient information management.



Secure Cloud &  
Digital



Global  
Monitoring



Mission Critical  
Communications



Cyber Security  
& Resilience

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