



LEONARDO CYBER & SECURITY SOLUTIONS

INTEGRATED PLATFORM

INTELLIGENCE
INFORMATION
MANAGEMENT

The Integrated Intelligence Solution is a powerful software suite specifically designed for security investigators and first responders. It collects, organizes and correlates information on the basis of semantics and statistics, sharing consolidated investigation results also through visual link analysis and on maps with a specialized GIS (Geographic Information System) to support collaborative investigation.

Modern intelligence gathering is therefore about identifying, investigating, preventing and managing potential threats to national security or other serious crimes through the highly dynamic flows of the global information community. This web-based solution provides a flexible answer to a wide variety of agency, operational framework and legislation, for applications in Homeland Security, counter terrorism, counter narcotics, finance fraud, human trafficking.

KEY CAPABILITIES

The solution can integrate an extraordinary range of data through semantic and statistical analysis, to make results available to properly authorized users and to manage the workflow of a collaborative investigation.

Key capabilities:

- Unique, integrated, information platform able to provide the right information to the right people at the right time
- Configurable end-to-end processing capability to collect, normalize, correlate, search and visualize information and gain insight on events –in accordance with relevant information handling legislation
- Intelligent components to enrich and simplify source information to make best use of skilled analyst effort
- Program-based approach to implementation, providing support to procedures changing and training, for a genuinely effective operational capability.

MAIN FEATURES

Through a normalization process, the solution is able to correlate data based on cognitive and semantic rules tailored for the type of analysis suitable for a specific agency. All collected data are managed and organized into a searchable virtual database before being processed and analyzed to create actionable intelligence products.

The main features are:

- Monitoring of wide-ranging data sources
- Ability to track a vast number of phone calls and internet activities



- Selective monitoring of voice conversations, web surfing and e-mails
- Data mining and analysis of structured and unstructured databases
- Efficient archiving and normalization of a huge amount of data
- Accurate searching to pinpoint and extract the relevant information
- Analysis of extracted information through visualization aids
- Integrated case management and secure collaboration tools.

ARCHITECTURE

The solution architecture is based on six main integrated components:

- Data fusion
- Intelligence Collaboration Solutions
- Open Source INTElligence (OSINT)
- Sensor and interception technologies
- Lawful interception global system
- Voice and video analytics.

DATA FUSION

The Data Fusion subsystem is based on an analytical repository for information tracking, featuring a high storage capacity to collect and maintain a vast amount of data. The subsystem has the ability to collect data, process queries and elaborate and correlate information according to flexible rules combining human collaborative work, semantic and statistical analyses.

The component is able to provide the early warning of threat situations as well as to generate alerts for critical situations. Analysis of stored data can be performed off-line for investigative and crime prevention activities, or in real-time for phone and internet activity monitoring (lawful interception on web, mail, chat forum etc.).

Scenario data can be retrieved and used for forensic activities and, following the need, stored or only indexed and remotely accessed. The Data Fusion system is based on a modular service platform where ad-hoc modules are plugged in according to the specific customers' needs i.e. types of data to be collected, data elaboration needs (e.g. offline vs. real-time), communication network interfaces (e.g. SM, LTE, Satellite, ...) and geo-localization.

INTELLIGENCE COLLABORATION SOLUTIONS

This component supports the information management of law enforcement and security agencies. Solutions are built according to the local legal framework (intercept warrants, data privacy, etc.) to enable storage, management, transfer of or remote access to information across security, organizational and regional barriers.

OPEN SOURCES INTELLIGENCE (OSINT)

The OSINT capability enables to carry out high level analysis and research on open sources of information (i.e. publicly available), as well as privately provided sources (e.g. company databases, network logs etc.).

Security analysts can extract useful information correlating sources at different levels, from the standard Web (e.g. Social Media) to dark nets (e.g. TOR), searching for specific topics of interest, gauging sentiment and retrieving information about potentially harmful actions and events, also generating early warnings and alerts.

The component leverages machine learning algorithms and a proprietary framework based on High Performance Computing architectures.

SENSOR AND INTERCEPTION TECHNOLOGIES

The component is built to integrate third parties' sensing and interception solutions, in order to preserve existing investments of the customer. Among the managed interception areas:

- Legal interception from Law Enforcement Agencies (fixed and mobile phones and related data)
- Internet –Decoding, IP Probe, Dark NET, OSINT, etc.
- Satellite –solution for intercept Thuraya, Inmarsat, etc.
- IMSI Catcher –identity from GSM, UMTS, LTE (4G) mobile phone
- Environmental interceptions audio and video
- GPS Tracking.

VOICE & VIDEO ANALYTICS

The component can be fed with data originating from sound or video analytics in order to integrate investigation and analysis processes with, as for instance:

- Indexing of sound sources contents and semantic data correlation
- Speaker Recognition
- Assisted transcription of interceptions
- Video Analysis (Face recognition, Loitering, Object Classification, Plate recognition, etc.).



BENEFITS

The solution can be customized according to the geographical distribution of the organization, scaling from single departments to nationwide multi-site hierarchically organized deployments.

The flexible information architecture satisfies the most stringent security, privacy and data retention requirements. The sophisticated security model allows a flexible and granular management of accesses and authorizations, matching all different needs in terms of workflow and collaboration with complete information assurance.

The Integrated Intelligence Solution guarantees:

- Highly effective facilities to enable analysts to find out the right information and synthesize that information into Actionable Intelligence
- High performance in terms of processing speed and accuracy, using state of the art capture, indexing and analysis tools and techniques
- Seamless integration of structured and unstructured information sources, e.g. audio, video, web
- Flexible data organization and processing
- Analyst friendly results presentation and geo-localization with powerful visualization tools
- Suitability for national and international activities, with a wide variety of languages
- Internal security capabilities providing maximum protection of confidential/sensitive data, fully configurable/need-to-know based access control, encryption and hardening for communication channels and storage protection.



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