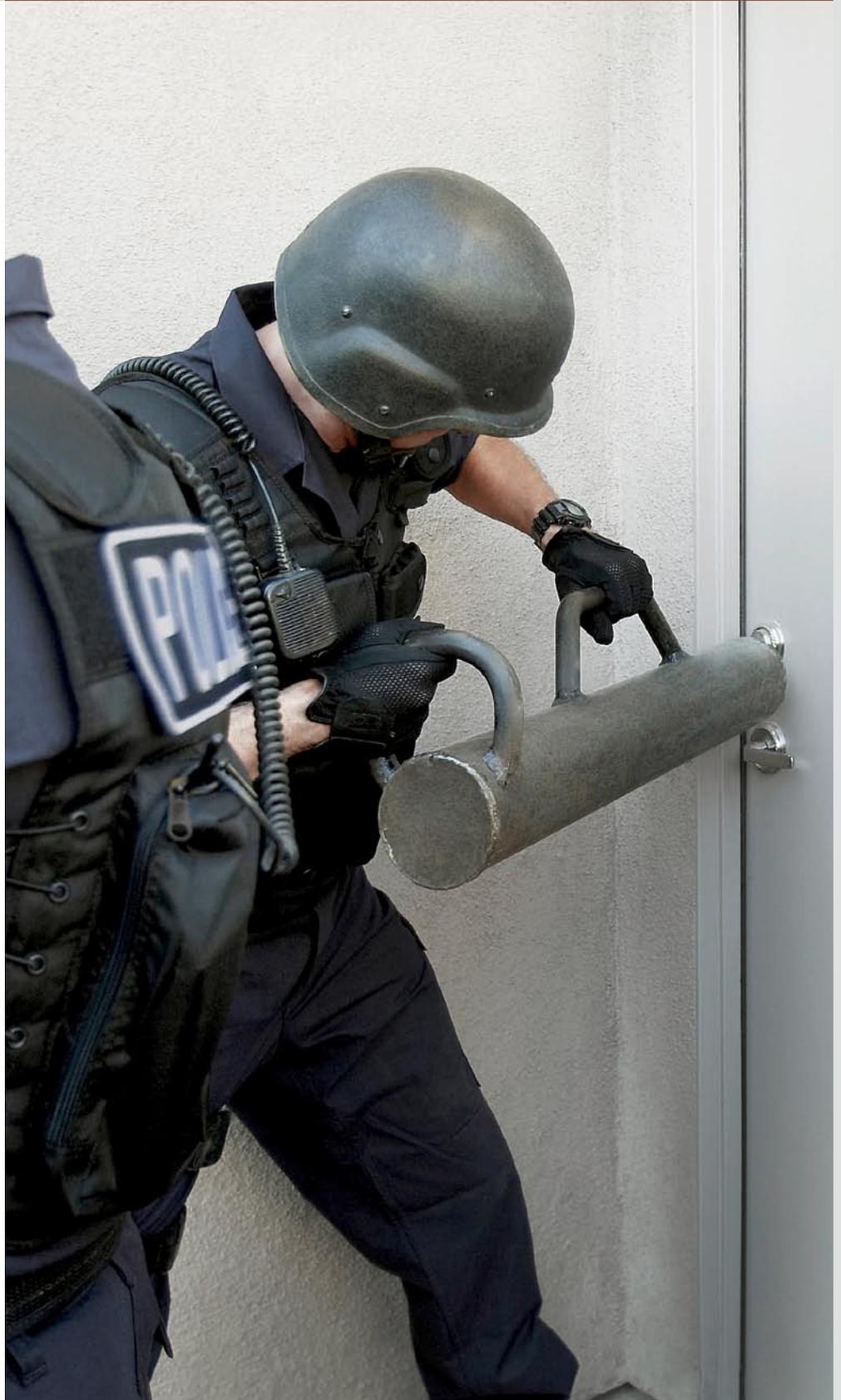


## A PLATFORM-BASED APPROACH TO PUBLIC SECURITY

### MANAGING INVESTIGATIONS WITH SAP® SOLUTIONS

Law enforcement agencies operate in a complex, diverse, dynamic environment, with responsibility for preserving public order; preventing, detecting, and investigating crime; and responding to incidents. Agencies need to develop a sophisticated, intelligence-driven, cross-agency strategy for tackling crime, terrorism, and public disorder while maintaining a 24x7, real-time service for responding to incidents, crises, and major events. Increasingly, they are focusing on improving operational efficiency and effectiveness while developing core competencies for managing identities, intelligence, investigations, critical assets, and personnel.





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## SAP FOR PUBLIC SECTOR

### FOUNDATION FOR A BUSINESS PROCESS PLATFORM

At the highest level, your goal is straightforward: to maintain security for the people, the economy, and the community within your area of responsibility. To achieve that goal, law enforcement agencies have to improve outcomes, achieving greater security and safety for their constituents – while complying with established rules and procedures. For improved responsiveness, transparency, and performance, they must deliver more effective and efficient services that meet the highest standards of integrity, quality, and professionalism, within an increasingly complex environment.

These challenges are exacerbated by the reality of newer, more devastating threats. Heightened public awareness of criminality, terrorism, fires, floods, hurricanes, and biological threats make the job of maintaining public security tougher than ever before. New approaches are required for delivering operational excellence. Underpinning this is a new approach to using standard solutions for continuous improvement.

Law enforcement agencies, in conjunction with intelligence services and other public security organizations, have never faced a more dynamic, agile, and sophisticated threat than today. At the same time, tremendous volumes of information and personal mobility mean that disrupting illegal acts is becoming ever more difficult. Improving the ability to gather, evaluate, disseminate, and act upon intelligence is a key competency in today's law enforcement environment.

You need the tools to assess and respond to the challenges facing your investigative staff. You also need to collaborate and interact – within your own organization, with government agencies, and with your partners. This means the ability to share, exchange, and access certain data, information, and intelligence in a secure, trusted, and auditable way. In this environment, an integrated solution must support multiple security disciplines, such as intelligence and counterterrorism, identity management, policing, and first-responder operations.

Law enforcement agencies must improve management of the entire investigative life cycle, from instigation through discovery, finalization, and review. They require real-time visibility of the investigation with intelligence, property, resources, activities, lines of inquiry, witnesses, persons of interest, victims, officials, and electronic records – all being managed on a single platform.

The SAP for Public Sector solution portfolio enables law enforcement agencies to implement a business process platform that supports investigative case management processes (see Figure 1). The solution portfolio encompasses the SAP® Investigative Case Management for Public Sector package, a key element of this approach.

Building a business process platform based upon a flexible, proven, robust, and scalable architecture using role-based security helps ensure that information assets are protected. SAP solutions offer a highly flexible and

configurable entity-data model, based upon the security model of people, objects, locations, and events, or POLE, that maintains investigative information. A flexible and configurable workflow engine enables the automation of complex processes needed to support and manage a range of rules, constraints, and protocols as part of an investigation or operation.

A platform based on SAP software provides the needed security to register, secure, maintain, and protect accurate and confidential data. This encompasses the distribution, federation, and sharing of information necessary across the investigation ecosystem via role-based authorization that leverages today's best IT security practices. This comprehensive set of solutions supports:

- Case creation, tracking, and handling during an investigation
- Management of all case elements, leveraging the POLE concept
- Relationship management needed to support investigative processes
- Activity management, with alerts to help make quick and effective decisions
- Search functionality to quickly access case information
- Display of all relevant case information in a single screen
- One-click access to case-related information for further research
- Personalization of the user interface

The solutions also support identity management and resolution to provide complete information on suspects, witnesses, and persons of interest in the case. Identity management

functionality can be integrated with the latest biometric technologies via partner solutions. Biometrics technology includes a range of techniques for identifying people based on physical characteristics such as fingerprints, iris scans, and facial scans.

### A Complete Investigative Picture

Investigators in today's public security reality have to manage a broad range of investigative disciplines, techniques, and capabilities. For more serious cases, this effort often involves large volumes of digital content, a broad range of specialists, complex interactions with various stakeholders, and much greater levels of accountability and scrutiny. At the same time, investigators have to quickly identify and expedite courses of action and lines of inquiry that deliver the best investigative outcomes and are underpinned by robust and consistent processes and decision making. To improve overall investigative performance and efficiency, investigators and agents need fast, easy, secure, and intuitive access to the complete investigative picture.

Understanding the big picture is difficult when the information is kept in multiple disconnected systems where it is hard to access, interact with, and analyze. Here's what happens:

- Investigators may wait weeks to receive actionable information to support investigations from external systems.



Figure 1: The Process Elements for Investigative Case Management



Law enforcement agencies, in conjunction with intelligence services and other public security organizations, have never faced a more dynamic, agile, and sophisticated threat than today. At the same time, tremendous volumes of information and personal mobility mean that disrupting illegal acts is becoming ever more difficult. Improving the ability to gather, evaluate, disseminate, and act upon intelligence is a key competency in today's law enforcement environment.

- Management cannot adequately plan, budget, hire, train, and schedule resources for cases and investigations due to limited visibility into case operations.
- Staff and managers do not have the complete investigative picture for managing, prioritizing, and analyzing caseloads.
- Investigators may receive conflicting data from multiple systems, or much of the data may be duplicative or of poor quality.
- Agencies have difficulty demonstrating compliance with federal, state, and judicial mandates, regulations, laws, and court orders.
- Property, exhibits, and scene information reside in separate systems, making it difficult to obtain and link vital information to the case for overall exhibit traceability or evidence continuity. In addition, linking seemingly isolated incidents together to deliver a complete picture is extraordinarily hard to do.
- Resources with the appropriate skills needed for the investigation are hard to identify because skill information is either not maintained or is maintained in a separate HR system.

Without an integrated approach, law enforcement efforts can become disjointed and ineffective. Command and control becomes uncoordinated, case management and evidence processes break down, and strategies for identification fail. At a time when law enforcement and homeland security agencies are under pressure to provide better, faster, and more cost-effective results,

your investigators need an integrated, secure range of tools for making sense of complex, disparate, and distinct content, documents, data, and text. They should be able to quickly identify the trouble spots, update case information, and generate up-to-the-minute reports without the need to contact an information systems specialist or enter duplicate data in multiple systems.

# TOOLS FOR REAL-TIME INSIGHT, ACTIONABLE KNOWLEDGE

## COLLABORATION, SIMPLIFICATION, AND DECISION ADVANTAGE

Homeland security, police, and other law enforcement professionals manage their work and measure performance by analyzing leads, investigations, cases, and outcomes. For internal management and external reporting, SAP for Public Sector solutions can help your agents save weeks of work typically done with spreadsheets and other tools that weren't designed for such analyses.

Long delays between information gathering and information use are no longer acceptable. Our solutions help investigators identify connections and patterns in the mass of seemingly unconnected data gathered from many sources. Investigators and analysts can uncover actionable intelligence and prioritize the important information. Business intelligence functionality gives law enforcement organizations immediate self-service access to the information they need. They can:

- Identify, segment, prioritize, and screen most important cases and leads
- Improve reporting by delivering a single, secure source of trusted, auditable, and actionable intelligence
- Use trend analysis and visualization to increase effectiveness
- Get notification of new and critical information with alerts and dashboards
- Analyze current performance information and evaluate future planning options

Homeland security agents and intelligence analysts can easily manipulate, compare, and analyze large, diverse data sets to rapidly identify anomalies that indicate criminal activity, illicit actions in support of terrorism, money laundering, tax evasion, and drug smuggling. Investigators and their supervisors have information relevant to their investigations at their fingertips 24x7, with fewer searches through files.

A platform based on SAP software provides the needed security to register, secure, maintain, and protect accurate and confidential data. This encompasses the distribution, federation, and sharing of information necessary across the investigation ecosystem via role-based authorization that leverages today's best IT security practices.

Complex investigations, litigation, or prosecutions generate a large amount of data and other information. With SAP Investigative Case Management for Public Sector, your agents can do the following:

- Improve their productivity and effectiveness with full support for, and complete visibility into, the end-to-end investigation process, including:
  - Gaining a single, complete, real-time view of the case
  - Initiating, prioritizing, and categorizing cases from a call or event
  - Reassigning responsibilities as needed to keep cases and investigations on schedule
  - Understanding what people are working on the case
  - Easily tracking suspects, witnesses, and persons of interest
  - Managing case activities and creating alerts to make sure case processing stays on track
  - Managing small cases and large complicated cases with the same tools
  - Tracking, tracing, and identifying exhibits
  - Managing access to documents and attachments
  - Managing electronic records and rich media files, including video, audio, and Web documents
  - Searching in the content of documents related or unrelated to a case
- Adhere to best practices and common approaches, including:
  - Accessing full audit functionality
  - Leveraging extensive identity management functionality
  - Using powerful workflow to follow established business processes

- Generate reports to:
  - Balance the workload
  - Assess agency performance
  - Improve planning
  - Improve investigations
  - Identify lessons learned
  - Identify patterns

With flexible, intuitive tools, managers can keep an eye on caseloads and match staffing to the amount of work. They can see backlogs as they emerge and identify patterns important to detecting concerns related to criminal activity and homeland security. Reporting up the chain of command is easier and less time consuming.

Supervisors can generate instant investigation, case, and department reports with the information that's important to them. Managers can track how personnel, funds, and other resources are being used, to prevent incidents and keep citizens and businesses secure, allocating scarce resources to the most pressing cases (see Figure 2).

### The Value of a Business Process Platform

The benefits of deploying one common SAP software-based platform for managing investigations include the following:

- Collaboration, interoperability, and horizontal integration:
  - Openness and flexibility to integrate legacy systems and non-SAP applications
  - Integration of human resource management, material management, maintenance, procurement, accounting, budgeting, funds management, controlling, and performance management functionality
  - Integration of back-office and core operational processes
- Total resource visibility for real-time situational awareness and transparency
- Multichannel access notification and alerting

- Increased productivity of agents and supervisors through automated reporting and analysis functionality
- Less time required to resolve cases and close investigations
- Increased agent effectiveness by sharing case, investigation, and best-practice information
- Reduced administrative costs of managing and reporting cases and investigations
- Dashboards and metrics that improve decision making, resource planning, and ROI
- Delivery of timely management information to justify budget and resource requests

SAP solutions provide law enforcement organizations with reporting, query, and analysis tools far exceeding those available in legacy systems. Yet these solutions integrate with those systems, giving users unparalleled flexibility in their choice of data sources and report formats. At a time when stovepipes are a hindrance to effective operations, you can integrate information from diverse systems and databases.

Authorized users can generate self-service reports on demand. Users at all levels of the agency, including front-line agents, investigators, and supervisors, can rapidly obtain the information they need without delay and in a form that is easy to understand. Dashboards for staff, managers, and executives are integrated with powerful reporting and analysis functionality.

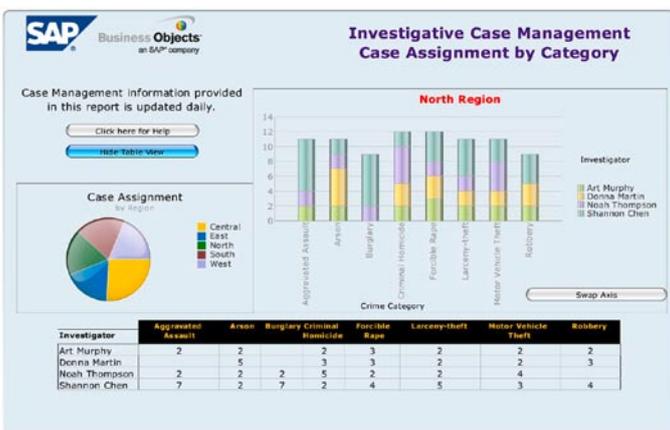


Figure 2: Example of a Report

# FULLY SECURE, FULLY AWARE

## DEALING WITH SENSITIVE INFORMATION – SECURELY

Law enforcement organizations deal with a significant amount of sensitive data concerning specific people and events. Rules of law vary by country, but there is general agreement that data and privacy should be protected during an ongoing investigation. No organizations today are more sensitive to the need for security than the agencies that investigate and fight crime and terrorism. While under pressure to solve cases quickly, they must act proactively to prevent additional threats.

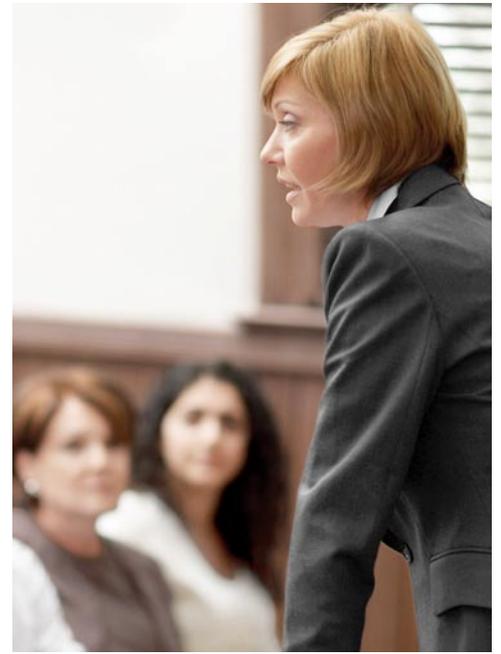
SAP for Public Sector solutions deliver the secure investigative environment that law enforcement agents need to meet these challenges. The solutions can help investigators share and synchronize case information with best-in-class, comprehensive data protection. The solutions are powered by the SAP NetWeaver® technology platform, which unifies all technology components and delivers comprehensive security features in a heterogeneous environment.

SAP Investigative Case Management for Public Sector helps ensure secure systems, employing the following:

- Reliable authentication
- Single sign-on, role-based authorization
- Central user management
- Secure information exchange with encryption
- Public key infrastructure support
- Secure document exchange with digital signatures

SAP for Public Sector has met the Director of Central Intelligence Directive (DCID) 6/3 PL3 and PL5 security accreditation requirements, allowing SAP applications to run on top-secret networks within the United States. The DCID establishes the security policy and procedures for storing, processing, and communicating classified intelligence information in information systems within the U.S. intelligence community.

SAP also collaborates with its wide partner network to provide additional security functions to meet specific requirements. These developments include such techniques as biometrics, smart cards, and directory servers. Built-in application integration combines the technologies and processes that enable SAP applications, custom applications, and other non-SAP applications to exchange agency-level intelligence and law enforcement information.



Without an integrated approach, law enforcement efforts can become disjointed and ineffective. Command and control becomes uncoordinated, case management and evidence processes break down, and strategies for identification fail. At a time when law enforcement and homeland security agencies are under pressure to provide better, faster, and more cost-effective results, your investigators need an integrated, secure range of tools for making sense of complex, disparate, and distinct content, documents, data, and text.

# ADVANCED VISUALIZATION

## ACTIONABLE KNOWLEDGE FOR STRATEGIC DECISION ADVANTAGE

The greater challenge facing law enforcement organizations is to notice and react to warnings and indications prior to an event – for example, to discover a criminal's or terrorist's plot in time to intervene. Toward this goal, these organizations gather huge amounts of content from public, private, and classified sources.

In the past, law enforcement agencies required investigators to examine documents manually to explore or substantiate theories. Increasingly, they use automated extraction technologies to identify entities and link them to one another and to places, times, and events. Important entity types in this sector include people, places, organizations, weapons, chemical compounds, phone numbers, license plates, vehicles, and so on. Facts or events involving these entities might include purchase or sale events that connect people and organizations or that associate particular things or identification numbers with particular people.

In addition to traditional human intelligence and signal intelligence channels, the fastest-growing source of information available to investigators is open source intelligence. To exploit all these valuable intelligence sources, investigators need a whole new generation of tools. These tools must be rich enough, flexible enough, and scalable enough to responsively support the content retrieval and analytical tasks that are the backbone of their work processes.

### Intelligent Search

With the advent of public and private information sources being added to the investigator's arsenal, the issue of consolidating search results from multiple sources becomes apparent. Using multiple search engines often results in duplicate results along with unique information being discovered. The investigator is left with the problem of filtering out the duplicate information to obtain a consolidated and effective search result.

SAP® solutions provide law enforcement organizations with reporting, query, and analysis tools far exceeding those available in legacy systems. Yet these solutions integrate with those systems, giving users unparalleled flexibility in their choice of data sources and report formats. At a time when stovepipes are a hindrance to effective operations, you can integrate information from diverse systems and databases.

SAP offers intelligent search software, a search engine-independent product that federates queries to multiple foreign search engines from a single query. It is not a search engine itself but leverages any engines that are internally and externally available, such as Google Search Appliance, Yahoo!, and SharePoint. Connectors or "brokers" can be written to access additional sources through their native application programming interfaces or directly through their own Web-based search interfaces.

With a simple yet powerful interface, a user can query multiple internal, external, and subscription data sources whether they are on the internal network, external Web, or services like Factiva or LexisNexis. Documents pointed to by the search results can be retrieved and analyzed with tools for text analysis and visualization.

Users receive a consolidated search-result list of documents along with a navigation mechanism to quickly drill down to the most relevant documents. Using customizable predefined taxonomies, intelligent search software presents extracted entities into logical categories and enables the user to explore the result set using faceted navigation.

In addition, intelligent search functionality can either export the result set to a user's local desktop in a variety of formats for further processing or send them to a server-side plug-in to trigger

further operations on the result set such as archival, sentiment analysis, or publishing.

### Text Analysis

The large amount of information available to law enforcement operations today is only useful to the extent that you can find, structure, and understand it. Text analysis functionality can extract, categorize, and summarize text information from a wide range of document types – in a variety of languages. This powerful tool can reveal the hidden relationships and events that lie untapped in both internal and external text materials – providing the information you need for better-informed decision making and compliance.

Text analysis is used to extract key information from unstructured text sources such as e-mails, Web-based documents, and confiscated documents to examine text, in more than 30 languages, and convert that information into useful intelligence. This information – unavailable through standard search engines or traditional business intelligence and document management software – can help you more reliably discover hidden intelligence in these data sources.

Alerts can be set that notify you to new or changing information as it develops. Once information is collected, the extraction and analysis tools in the software let analysts automatically navigate key relationships, concepts, and timelines that might otherwise be overlooked.

These functions power downstream operations such as entity and fact extraction, categorization, and summarization – which structure text for more effective use in law enforcement operations. Text analysis also provides taxonomy-based, document-level clas-

sification of information that is not explicit within documents. By identifying such types of conceptual relationships, the software can automatically place your information in the proper category.

### Data Visualization

Investigators today are under tremendous pressure to perform in many areas of expertise. Long gone are the days when an investigator had the luxury of focusing on one geographic area or on one particular target of interest. Today, investigators are involved in research and analysis tasks that span the globe. Investigators

#### Text Analysis – Extractable Languages

Text analysis extracts key information from unstructured text sources such as e-mails, Web-based documents, and confiscated documents to examine text and convert that information into useful intelligence. Following are available languages:

- Arabic
- Catalan
- Chinese (traditional and simplified)
- Croatian
- Czech
- Danish
- Dutch
- English
- Farsi
- Finnish
- French
- German
- Greek
- Hebrew
- Hungarian
- Italian
- Japanese
- Korean
- Norwegian (Bokmal and Nynorsk)
- Polish
- Portuguese
- Romanian
- Russian
- Serbian
- Slovak
- Slovenian
- Spanish
- Swedish
- Thai
- Turkish

and analysts need tools that allow them to visualize large volumes of information, extracting patterns and understanding relationships between the data elements easily.

One of the big challenges for analysts dealing with many individual pieces of intelligence is how to see connections across tens of thousands or even millions of individual objects. Information visualization involves using techniques to increase the bandwidth of our interaction with information by taking advantage of our evolved skills for processing large amounts of visual information. For example, small discontinuities or changes in shape, texture, or shade, as well as groups or parallel structures, pop out at us. Using these types of visualizations, investigators and analysts can discern patterns in the data that they otherwise would not have noticed.

SAP relationship- and link-analysis tools enable you to visualize and explore large hierarchies, networks, and connections across many thousands of information objects by making information easier to see and understand (see Figure 3). Visualization tools create value from information assets by placing relevant information at the fingertips of analysts and investigators, enabling them to make faster, better-informed decisions.

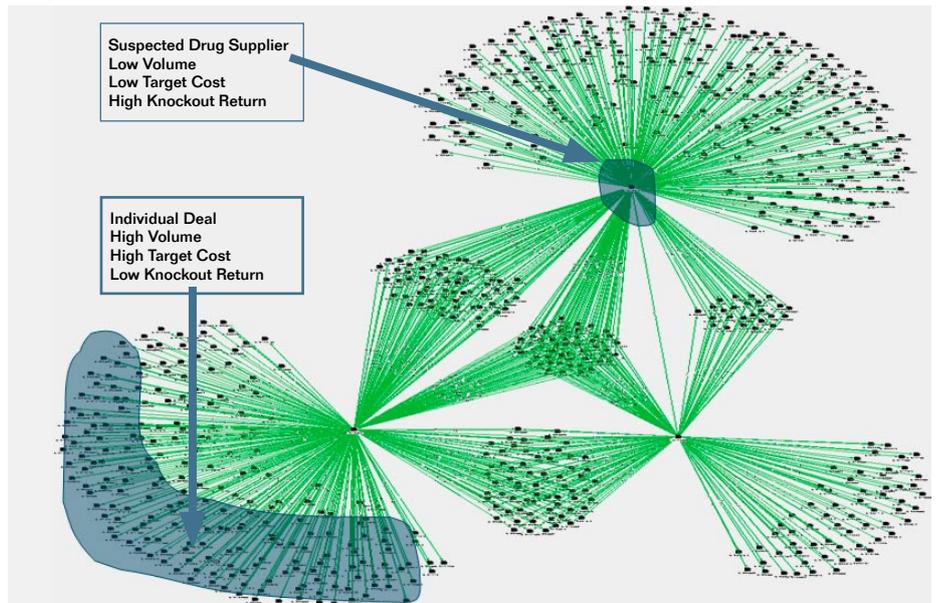


Figure 3: Managing Investigations of a Drug Network with Advanced Visualization Tools

SAP solutions help investigators deal with complex, unpredictable, and short-fuse tasks by enabling them to:

- Rapidly process large amounts of data on demand
- Perform ad hoc processing (since you often don't know what you need to know until you need to know it)
- Quickly assess the nature and relevance of vast amounts of content
- Grasp the subject or topic spread of large result sets at a glance
- Separate the vital information from the noise
- Perform deeper analysis of large amounts of content
- Observe trends across many data dimensions
- Draw conclusions from multiple pieces of evidence
- Define search criteria, visualize entities and relationships, subquery, manipulate multiple result sets, inspect evidence, refocus extraction, and refine criteria

## Time-Based Relationships

Typical time-based relationship tools are static, inflexible, and ill suited for displays of large quantities of information. SAP offers a tool that displays time on a living three-dimensional "wall." It empowers analysts, decision makers, and other users to make faster, better-informed decisions by placing relevant information at their fingertips (see Figure 4).

The tool provides a richness of physical experience that cannot be represented in standard project-planning and timeline tools. It enables users to see patterns over long time horizons, while also helping them to focus in on a particular time segment of interest. Filters allow users to narrow down information based on any combination of structured information, such as numeric, geographic, categoric, or other criteria.

Activities that can be supported through the time-based relationship tool include:

**Event analysis, prediction, and storytelling** – Analyze past activities for cause-effect correlation to develop and validate new predictive theories, such as:

- Discerning previous patterns of activity leading up to terrorist attacks
- Clarifying significant links, patterns, and dates of criminal activity
- Revealing patterns of illegal activities

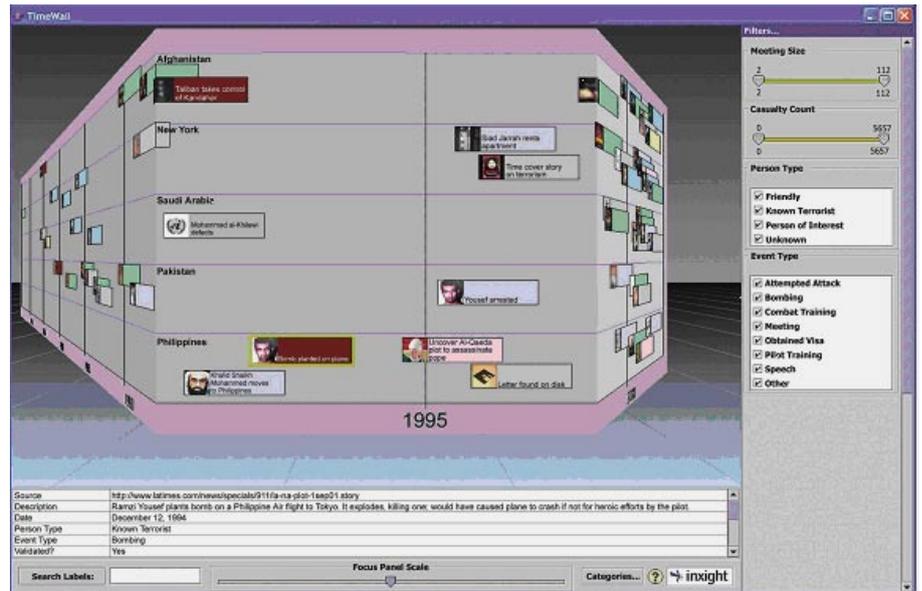


Figure 4: Activities Viewed in a "Time Wall" Format Displaying Relationship Patterns

**Information exploration** – View documents or information in a multifaceted environment, including:

- Sorting documents by date and relevance
- Following money-laundering transactions through offshore accounts and shell companies
- Viewing documents by category and date modified

**Planning and forward activity** – Visualize and storyboard upcoming activities:

- Mapping key events such as conferences, concerts, and sporting events
- Identifying gaps in case activities to correct processes
- Scheduling and coordinating large numbers of personnel for training or other purposes

# MAPPING THE PUBLIC SECURITY TERRAIN

## WITH SAP AND PARTNER SOLUTIONS



SAP software is integrated with industry-leading geographic information system (GIS) software from ESRI through enterprise service-oriented architecture (enterprise SOA). Geospatial Enablement for Public Security (GEPS), an SAP-certified composite application from ESRI, works with SAP applications to provide a universal and easily navigated map-centric viewer. This allows rapid and accurate access to force-element information defined and managed within the SAP software. You can visualize and analyze people, locations, objects, and events in their geographic context, which helps you understand their relationship to each other and to nearby critical infrastructure, population centers, and other geographic features. From the GIS, you can easily access the resource management information in SAP public security applications and vice versa. Information from the incident management system can also be integrated using the GEPS tool. This combination gives you all the visualization, geoprocessing, and analysis offered with ESRI software while maintaining the advantages of resource transparency, incident management, and total asset visibility provided by SAP solutions.

With this integrated approach and an integrated platform, SAP public security solutions can:

- Integrate business data in SAP software with location data in the GIS – with the ability to join business tables with location feature tables for geographic display, query, and analysis in support of business decisions
- Connect business functions in SAP software with ESRI geoprocessing functions – combined functionality that supports specific processes, roles, and tasks and is distributable across the software architecture
- Fuse disparate business and geographic information from multiple internal and external sources into a common operational picture – essential for rapid situational assessment and decision making

SAP and ESRI also support Web 2.0 technologies for real-time integration of a dynamic GIS and global positioning system data, so you can create dynamic mapping mash-up applications and deploy them using the SAP NetWeaver Portal component.

# HOW SAP HELPS

## LEADERSHIP IN SUPPORTING THE NEEDS OF THE PUBLIC SECTOR

Law enforcement agencies need tangible results fast. You can't afford the disruption of long, costly implementations. You also need systems that will grow and adapt as you do. Investing in a system you will outgrow in a few years' time is a false economy. SAP has a strong industry focus on public security, a clear solution framework that is available today, and an integrated road map for the future.

- SAP software has demonstrated its ability to improve operational capabilities, and this, coupled with clear thought leadership and innovation, delivers real value.
- SAP applications can be implemented one at a time, addressing major challenges first yet allowing you to build a fully integrated solution.
- Through accelerated implementation methods, SAP applications can be up and running in as little as three months, delivering a fast return on investment.
- All SAP applications are built on the SAP NetWeaver technology platform, so they can be quickly and cost-effectively customized to meet individual requirements and integrated with other SAP and non-SAP software.
- SAP makes sustained investment in our software applications and our customers. In 2007 R & D expenditures totaled US\$2.13 billion (€1.4 billion).
- A significant portion of R & D is spent on its dedicated public sector development center, which focuses on ensuring that SAP solutions continue to be compliant with all new government regulations and initiatives.

- SAP provides support for third-party integration of biometrics, trend analysis and profiling, card management, and security-based visualization and analytical tools.

Text analysis is used to extract key information from unstructured text sources such as e-mails, Web-based documents, and confiscated documents to examine text, in more than 30 languages, and convert that information into useful intelligence. This information – unavailable through standard search engines or traditional business intelligence and document management software – can help you more reliably discover hidden intelligence in these data sources.

SAP has 46,100 customers. Although these organizations have very different business needs, they must all operate in secure environments. For more than 35 years, SAP has given its customers the highest level of security and been a trusted advisor in this critical area. The

company actively participates in standards boards worldwide and constantly refines its security offerings as new technology emerges. As the world's largest business software supplier, SAP has a long-term future, so you can be confident in the availability of upgrades, enhancements, and support.

Technological issues can be discussed on the SAP Developer Network (SDN) site, a virtual community of developers who use the community Web site at [www.sdn.sap.com/irj/sdn](http://www.sdn.sap.com/irj/sdn). SDN provides a public forum where you can learn how others cope with the challenges of new technologies and how to leverage your existing IT landscape. SDN also provides direct contact to the developers within SAP, the people who developed your application, and helps you get the relevant information from technical experts. At the same time, SDN helps SAP stay aligned with our customers' requirements and the latest technological trends in our market.

## Questions to Ask

SAP Investigative Case Management for Public Sector can help if your agency needs answers to questions like the ones below:

### Big-picture issues:

- What is the overall crime, intelligence, and investigation picture for my agency, region, team, or speciality?
- What are the trends, hot spots, bottlenecks, or identified targets where I can focus my resources, operations, and initiatives?

### Overall performance:

- How is my team, agency, or department performing against benchmarks for crime detections, successful prosecutions, investigative quality, and compliance with standards and deadlines?
- Can I quickly build, track, and monitor all investigative lines of inquiry, including resources, skills, status, and deadlines?
- Which investigative techniques, approaches, and practices deliver the best outcomes, value for money, and results?

### Individual cases:

- What is the overall investigative picture for a particular investigation, in terms of resources, assets, costs, personnel, budget, skills, and activities?
- Who are the persons and what are the objects, locations, and events involved in this case?
- Who are the persons of interest in this case, and what other cases involve them?



- What relationships exist with other known persons?
- What intelligence or events are linked to the investigation and entities?

- How reliable are the information sources supporting this case?
- What other cases are related to my current case?
- Where can I access all the interactions made by external persons in relation to this case?
- What documents and evidence have been provided to defense?
- Can I quickly trace, access, and view the status of my exhibits, witness statements, strategy documents, intelligence products, and other information assets?
- Are we following the established case processes in compliance with the existing rules?
- Does the case meet rules and process standards around good practice, admissibility, accountability, and strategy?
- Which aspects of the investigation – forensics, intelligence, lines of inquiry, suspects, and profiles – are providing best results and outcomes?
- How can I discover patterns and relationships from seized digital content?
- Can I be sure that the data quality in my case is high level?

### Resources:

- How many cases are handled by the average investigator?
- What types of cases and investigations are taking the longest to close?
- What business process seems to impede resolution of particular types of cases?
- What skills, experience, and training will my staff need to improve their performance?
- What are the headcount, budget, and other resources required for my agency to accomplish its mission?

# KEY BENEFITS

## FAR-REACHING IMPACT

A platform-based approach to public security using SAP for Public Sector enables you to realize the following benefits:

- A single platform to plan and manage all investigation-related resources, data, information, intelligence, personnel, assets, budgets, and procurement
- The ability to acquire, classify, store, analyze, manage, disseminate, and take action on data, information, events, and incidents from any source, in any format
- Role-based authorization to register, secure, maintain, and protect accurate and confidential data, and where necessary, distributing, federating, and sharing across the investigation ecosystem
- Automation of complex processes, rules, constraints, and protocols needed to support operational best practices
- The ability to accurately record and track decisions, actions, activities, contact, notes, content, personnel, resources, assets, costs, budgets, submissions, subjects, and investigation events
- Real-time decision support and performance-based analytics
- Accurate, real-time, and consistent resource information for effective decision making, including overtime, expenses, assets, equipment, and knowledge
- Improved collaboration and productivity through use of existing desktop investments, forms, and devices

Having a complete view of your operations enables you to better identify the resources, assets, and information required for effective performance.

A complete picture of end-to-end operational processes helps ensure that managers can focus on high-quality, efficient services delivery. With the ability to share data within your own

Having a complete view of your operations enables you to better identify the resources, assets, and information required for effective performance. A complete picture of end-to-end operational processes helps ensure that managers can focus on high-quality, efficient services delivery.

work teams and with other security agencies (while preventing unauthorized access), you can put proactive operations in place that enable cross-jurisdiction efforts to bring offenders to justice. This results in team environ-

ments that motivate improvements in performance while maintaining a workforce that feels valued and supported, thereby increasing worker productivity.

By leveraging an integrated law enforcement platform, you can quickly identify changes in crime trends, enabling faster responses to reduce crime and potential terrorist threats. By making communities safer, quality of life improves and people feel safer. Building trust and confidence allows the criminal justice system to become an integral component of delivering safer communities.

### Find Out More

For more information about SAP for Public Sector, please call your SAP representative or visit us on the Web at [www.sap.com/industries/publicsector](http://www.sap.com/industries/publicsector).

# INDUSTRY VALUE NETWORK

## PUBLIC SECTOR

### The Industry Value Network Group for Public Security

The Industry Value Network group for public security is one of 15 existing industry-focused groups of this type hosted by SAP. The Industry Value Network group brings together customers, partners, and SAP to develop solutions that solve the unique challenges of the public security industry. These solutions are based on enterprise SOA and open standards to fuel a new dimension of industry interoperability and collaboration.

The public security network fosters collaboration among independent software vendors such as:

- Adobe Systems Incorporated (interactive forms)
- Cognitec Systems GmbH (facial recognition technology)
- Daon (identity assurance software and services)
- ESRI (geographic modeling and mapping technology)
- Genesys Telecommunications Laboratories (contact center solutions)
- Human Inference Enterprise B.V. (solutions to enhance the quality of data)
- idematrix AG (biometric identity management solutions)
- Ontos Verlag (semantic technologies and solutions)
- Open Text Corporation (enterprise content management solutions)



The group also includes technology vendors such as Cisco Systems Inc. (IP networks) and systems integrators such as Capgemini and itelligence Inc. The group's members are collaborating to solve industry-wide challenges in the areas of investigative case management, intelligence-led policing, identity management, and emergency management, as well as operational resource management, by co-innovating end-to-end business processes running on a common business process platform. Partner applications will leverage the SAP NetWeaver technology platform.

More information on the Industry Value Network group can be found at: [www.sap.com/ecosystem/communities/ivn/publicsecurity/index.epx](http://www.sap.com/ecosystem/communities/ivn/publicsecurity/index.epx).



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## Summary

SAP for Public Sector solutions enable law enforcement agencies to adopt a platform-based approach to managing the end-to-end investigation life cycle. This approach helps ensure that you are able to coordinate, deploy, and monitor all types of investigations.

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## Business Challenges

- Fragmentation of information, leading to reduced operational effectiveness and efficiency
- Data quality; visibility and connection of information, intelligence, resources, and assets
- High volumes of information and digital content, making it difficult to act upon intelligence in a timely manner
- Lack of cross-investigation visibility such that valuable intelligence is not readily and securely available
- Pressure to provide better, faster, more cost-effective results while complying with rules and due process
- Secure sharing of information in a trusted environment, while complying with privacy, protection, and data-sharing legislation

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## Supported Business Processes and Software Functions

- **Case creation, tracking, and handling** – Improve agents' productivity and effectiveness
- **Management of the investigative life cycle** – Use flexible, intuitive tools to manage resources, assets, exhibits, knowledge, skills, and intelligence across the investigation life cycle, supporting productivity through interactive forms
- **Data protection** – Share and synchronize case information securely
- **Advanced visualization** – Support content retrieval and analytical tasks that are the backbone of investigations
- **Identity management** – Identify people via physical characteristics

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## Business Benefits

- **Automate processes** needed to support and manage a range of rules and constraints
- **Streamline intelligence gathering**, investigation processing, and identity management
- **Increase productivity and efficiency** and provide self-service access to information
- **Meet high standards** for integrity, quality, and professionalism
- **Act proactively** to prevent threats

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## For More Information

Call your SAP representative or visit us online at

[www.sap.com/industries/publicsector/publicsecurity/index.epx](http://www.sap.com/industries/publicsector/publicsecurity/index.epx).

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