

# Fighting Crime with Data

Minimizing risks and improving  
outcomes in Police Investigations



# Fighting crime with Data

**How the powerful data analytics solution, Söze, can help fast-track findings, minimize risk and improve outcomes in police investigations.**

Crime is becoming increasingly complex and multi-faceted. According to the Australian Criminal Intelligence Commission, organized crime costs Australia \$60.1 billion a year, and new types of crimes are emerging constantly, enabled by advancing digital technologies and infrastructure. Organized crime is also now a transnational business, with advances in technology dissolving the borders that previously protected potential victims from overseas criminals. In addition, criminal syndicates are employing professional facilitators and sophisticated obfuscation methods to conceal their activities to avoid detection.

For agencies tasked with investigating these increasingly complex and technically sophisticated crimes, the load is enormous.

When conducting an investigation, police must now manage a vast and ever-increasing amount of data – from an ever-expanding selection of devices and applications. Digital Forensics Units have been created to help extract insights from data sources like computers, tablets, mobile phones, wearable

devices and banking data that all conceal a complex interleaved digital footprint . However, while there is enormous potential for this data to reveal a raft of investigative avenues, it can also be extremely time consuming to dissect, to isolate patterns and to identify anomalies. Also, much of this work is still done manually, or using ad- hoc software that isn't specifically crafted for the needs of police. As such, skilled police analysts and investigators are often bogged down with time consuming data wrangling, when they could be using their time to focus on investigating solid leads.

To help streamline and fine-tune this investigative process, the team at Akkodis has partnered with a variety of state and federal Law Enforcement agencies to develop Söze: an innovative and powerful new data analytics platform specifically created for police investigations.

In this whitepaper we highlight some of the common challenges for Police investigative teams and explain how a platform like Söze can help.



## Organized crime is costing Australia AUD\$60.1 billion a year\*

Every crime type investigated today has an increasingly rich and complex digital footprint. Söze assists investigators with any crime involving digital evidence.

Organized crime is transnational business with advances in technology dissolving the borders that previously protected people from overseas threats.

Criminals are often early adopters of new and emerging technologies that they adapt and exploit for personal gain and conceal their activities their activities to avoid detection.

\* Source: Estimating the costs of serious and organised crime in Australia, 2020–21 | Australian Institute of Criminology (aic.gov.au)



## The challenge of criminal investigations in a data rich society

# Investigation

The modern criminal investigator faces several challenges when it comes to investigating crime in today's data-driven world. These include:

## 1 Ever-increasing data volumes and data types

Investigators are tasked with collating and analyzing an ever-expanding volume of information from all kinds of sources. This includes telecommunications provider data, mobile phone data, emails, images, videos, social media messages, financials, and reports, as well as data from core systems.

A particular investigation could involve, for example, cross-referencing an extract from multiple mobile phones, and all of their calls, texts, emails and photos along with seized hard drives and computers, telephone company records with their financial history supplied by their Banks.

While all of this information can be extremely valuable in identifying patterns and helping narrow down the number of potential investigative avenues which detectives need to take, it can also be extremely time-consuming and difficult to analyze – particularly if the analysis is done manually, or without the right solutions in place and can be made worse when specialized analysis systems don't talk to each other.

■ Sources  
■ Analysis

**Sources:** Tools and analysis used in a typical criminal investigations





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Söze has been developed with police, for police, and is very unique in this regard

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## 2 Lack of overarching insight

Another key problem faced by many investigative teams is that their software operates in isolation. Typically, teams of analysts and investigators will rely upon several pieces of software – which may or may not work together. In addition, one department may have an excellent solution for comparing and analyzing images; another may have a great solution for filtering and extracting insights from seized mobile phones; and another may have a solution targeted at identifying instances of financial fraud, or international financial scams. Unless these solutions can work together there is great potential for investigative avenues to be missed altogether.

## 3 Data Security

In the past, most police departments have had to rely on on-premise solutions in order to meet very strict data compliance and security regulations. As well as being costly, this also limits the potential for the solution to provide overarching insights – or for it to be used from a variety of locations.

The explosion of the amounts of digital evidence being seized today eclipses the budgets and resources available to Police IT teams, resulting in the need for a paradigm shift in how this data is stored and analyzed.

## 4 Access to analysts

Most police departments rely on specialized analyst services for an investigations data holdings - access to these limited resources is a challenge. Analysts also spend a large proportion of their time processing and wrangling datasets, rather than high-value analysis tasks.

## 5 Investigative risk

As police teams must deal with such huge volumes of disparate data, there is a risk important evidence will not be discovered, or exculpatory information missed. For investigators, and for the general public, the inability to analyze and interrogate all available data, in a timely and efficient way, can mean considerable risk.



# Built to adapt to the ever-changing threat environment

To process the growing volumes of evidence being seized today Söze has been built to support investigators within global law enforcement and intelligence agencies– revolutionizing their ability to use analytics to find information that can help them respond to threats and solve cases, faster.

Built and tested with frontline investigators across the top 90% of differing crime types on real world investigations, Söze is a tool that augments Investigators and allows them to apply their training, experience and tradecraft as the most adaptive tool we have today in fighting crime – a curious mind.



*“Söze has been developed with police, for police, and is very unique in this regard. There are some good policing solutions in the market, but none are contextualized to policing need,”* says Tim Thomas - Detective Inspector at Western Australian Police.

# With Söze, Investigations Teams can:

## 1 Save an enormous amount of time

Söze can help alleviate the mundane and repetitive analytical tasks which consume analysts or investigators time and result in a backlog within investigative departments. By automating the very time-consuming ‘bread and butter’ analysis, skilled analysts or investigators can focus more specific areas of analysis and pursue individual investigative channels.

*“A very large portion of the time, our existing analytical methods deliver what we need – however the workload on our analysts and investigative teams is considerable. Söze enables us to cross-reference different areas of analysis to uncover patterns, anomalies, and investigative avenues we wouldn’t have been able to uncover previously,”* says Thomas.

## 4 Investigate more, and deeper

Söze also utilizes powerful machine learning and artificial intelligence features to delve deeper into existing data and uncover insights or relationships that would ordinarily not have been possible.

For instance, while an investigator may be able to manually categorize hundreds or potentially thousands of photos and images relating to a particular case, Söze can discover metadata, objects, people, and faces in millions of images, and identify anomalies, patterns, or connections far faster than any human can.

## 2 Think in more abstract terms

By having a much broader and comprehensive analytical platform, analysts aren’t limited to the tools at hand.

*“If you’re an analyst or investigator and you’re looking at a homicide job, the type of analysis you perform is crafted by the systems you have to use,”* says Thomas. *“Söze allows you to think in a more abstract way – for example: “show me links between Person A and guns”, or “show me how Person A and Person B are connected.”*

## 5 Leverage existing tools

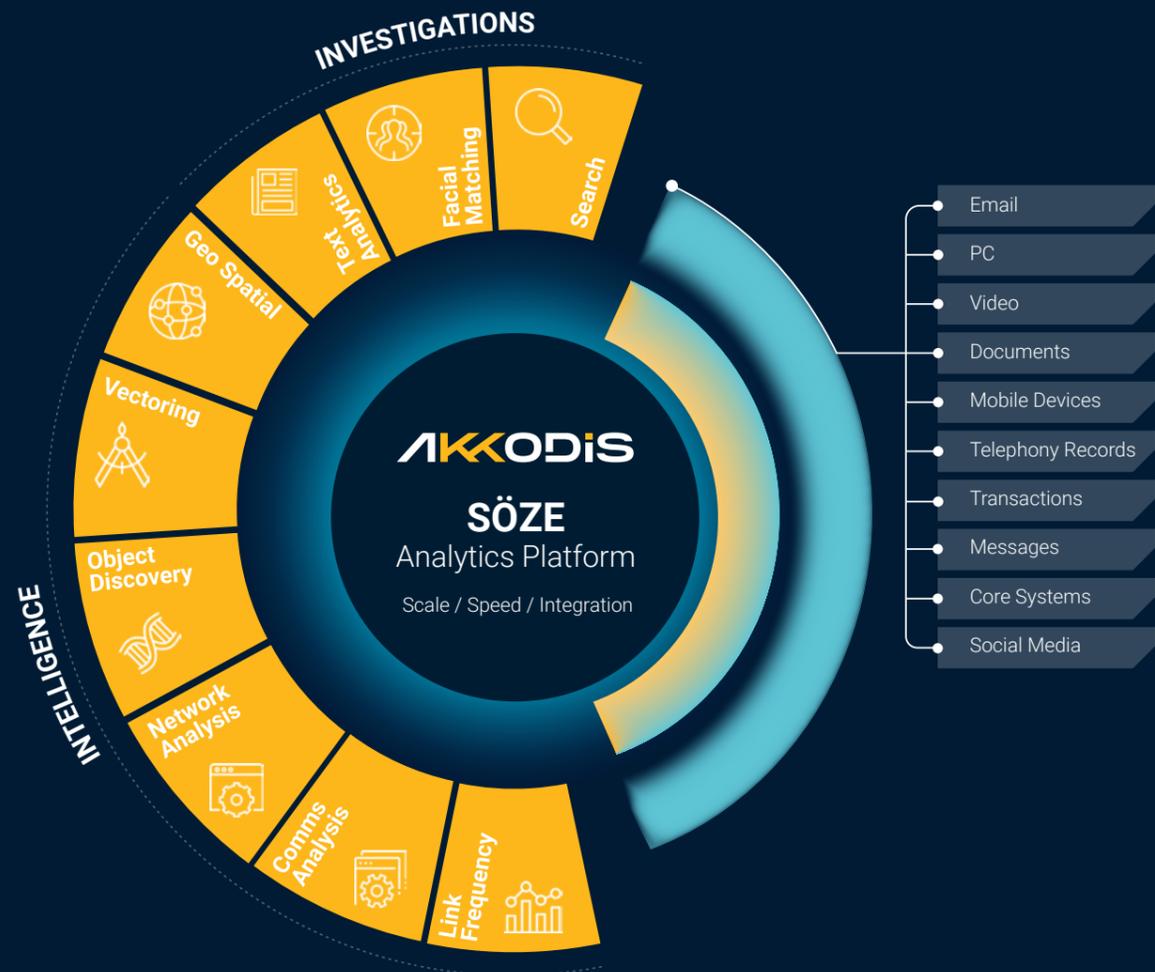
Importantly the Söze platform doesn’t replace existing analytical infrastructure, but rather sits across current solutions and enables deep and overarching analysis. This means departments can retain any software and solutions which their analysts and investigators are already familiar with.

## 3 View everything on a Single Pane of Glass

Söze brings disparate analytical tools together into one, overarching analytical platform. This enables much broader and deeper insights because all the data can be viewed on a ‘single pane of glass’.



# Akkodis Söze Platform



Söze works by bringing a broad range of existing analytical tools together, and applies intelligent metrics to provide rapid, deep, and overarching analysis. This includes:

- Link and frequency analysis
- Communications analysis
- Network analysis
- Object discovery
- Vectoring
- Geo spatial analysis
- Text analysis
- Facial search
- Search.

*"We initially met with Akkodis about solving a problem with our existing link and frequency analysis tool. They came back to us with a solution that not only helped us overcome this initial problem – but also solved a lot of larger problems for us,"* says Thomas.

### Work securely and stay up to date

Söze is hosted in Microsoft Azure, that has been a de facto standard for Government workloads in many countries, as Microsoft build, maintain and expand their local presence to guarantee data sovereignty. Plus, Söze is also updated constantly, in accordance with new regulations and emerging technologies, so analysts and investigators can rest assured they have the most up to date technology and tools at their fingertips.

# Why Akkodis?

Our dedicated Public Safety & Justice team has worked with a diverse range of government agencies to provide compelling domain focused solutions that tackle problems across the law enforcement and justice domain that include:

- **Söze** - data analytics to drive improved investigative outcomes at scale
- **Yarning** - improved Aboriginal community communication and engagement
- **OneForce Locate** - increased officer safety through intelligent officer support, situational awareness and location management
- **Small Assets Register** - reduced administrative overheads in day-to-day police asset distribution
- **Jury Management System** - significantly reduced administration time, and improved juror interaction and experience
- **Bail Attendance Reporting System** - self-service check-in kiosks to streamline bailee reporting and free up police resources
- **LD+** - Standalone audio transcription and translation services across listening device data to fast-track post recording analysis and verification by officers.

Through over a decade of work with public safety and justice organisations Akkodis has developed a deep understanding of the intricacies and challenges inherent to this sector. Our commitment to help these organisations navigate the complexities of their sector, fostering efficiency, safety, and the overall well-being of their people - and the communities they serve - is at the core of our mission.

By working with police and other public safety agencies to address their core challenges and priorities, we have co-developed solutions that support operational and organisational efficiency, including improved communications, prioritised resource allocation, case management, and the processing and analysis of digital evidence. Through ongoing interactions with strategically driven frontline personnel, Akkodis has developed an operationally led, technology enabled approach to this work.

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*The real strength of Söze is that it's been developed as a partnership: with police, for police. Essentially, it means we can solve crimes and resolve problems and arrest criminals faster, which makes the community safer and better for all.*

**Tim Thomas**  
Detective Inspector,  
Western Australian  
Police

## About Akkodis

Akkodis is a global digital engineering consulting company that enables organizations to innovate and accelerate by applying technology to redefine how processes and products are developed, powered and optimized. With deep expertise across AI, data, cloud, edge and software engineering, we combine technology and talent to deliver end-to-end solutions, from strategy and consulting to talent development and implementation. Our commitment helps businesses connect the exponential power of technology with the irreplaceable strengths of human thinking and collaboration.

Part of the Adecco Group and headquartered in Switzerland, Akkodis brings together 50,000 engineers and tech consultants in over 30 countries with services that span Consulting, Talent, Solutions, and Academy. With a cross-sector view and strong delivery capabilities, Akkodis empowers businesses to solve complex challenges and achieve sustainable impact.

## Find out more

If you are interested in learning more about Söze, and how we can help your organization, please contact our team:

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## Learn more about our work across Public Safety & Justice:

