# HOW TO TURN A WORLD OF ABUNDANT DATA INTO ACTIONABLE INTELLIGENCE

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Data is streaming into government from virtually unlimited sources. Smartphones, social media, video cameras, sensors and alarms are giving public safety agencies the ability to see, hear and do more with less. Yet this abundance of information comes with an enormous challenge: how do agencies operationalize all the data that surrounds them?

Whether citizen multimedia messages or 9-1-1 calls, radio traffic or video feeds, police departments across the country are seeking smarter ways to capture, correlate and share all this information — and turn it into usable and actionable intelligence.

Rather than relying on paper reports and disjointed databases, real-time technology is helping law enforcement see a wealth of integrated information with just a few clicks. Instead of spending days or weeks combing through files, police can access the information they need instantly.

In New York City for example, this means 120 million city criminal complaints; arrests and 911 call records dating back a decade; five million criminal records and parole files maintained by the state; and more than 31 million records of crime committed nationwide.[1]

**REAL-TIME TECHNOLOGY HELPS NEW YORK CITY POLICE INSTANTLY ACCESS**

**120 MILLION CITY CRIMINAL COMPLAINTS**

**5 MILLION STATE CRIMINAL RECORDS**
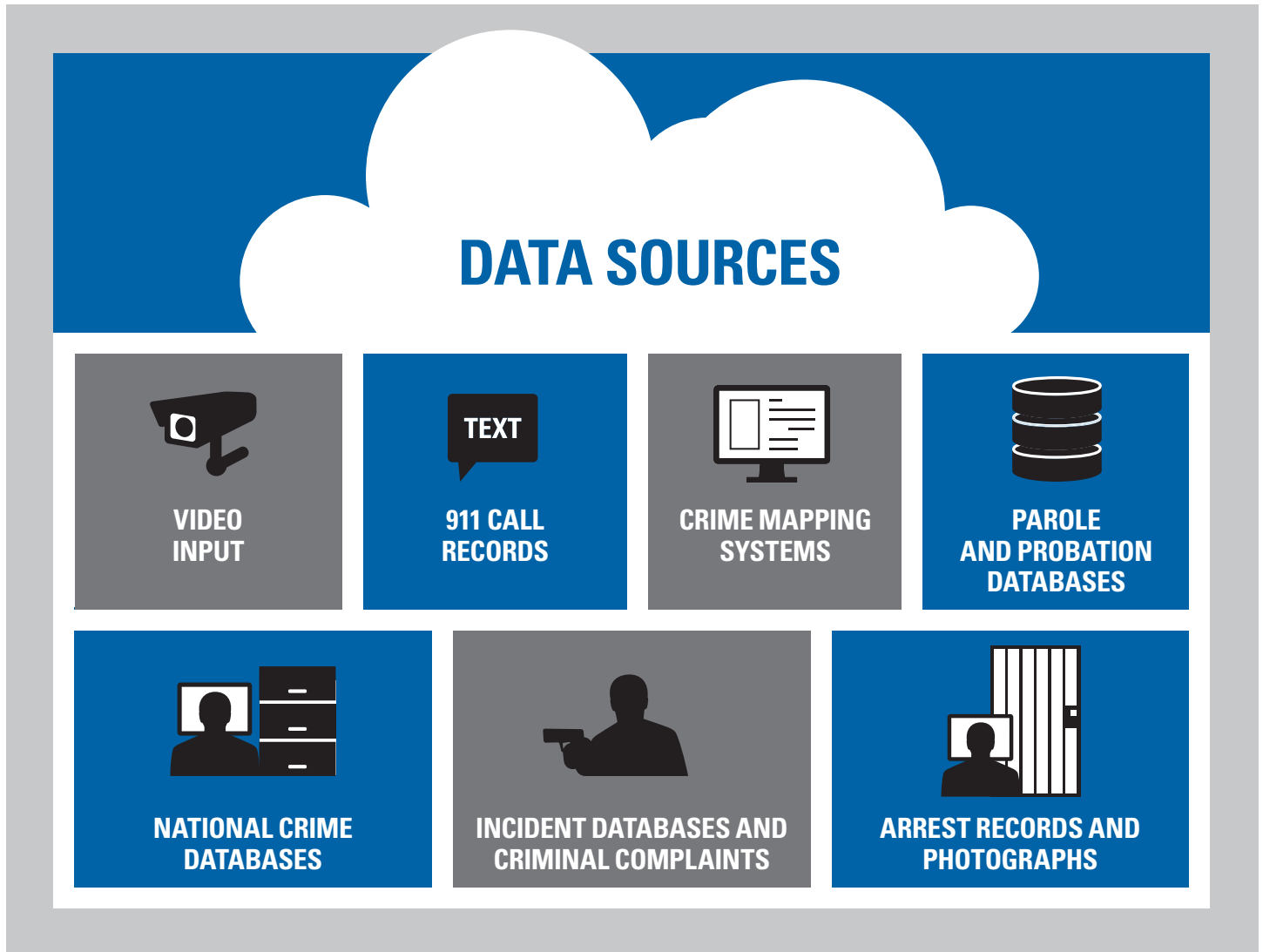
**31 MILLION NATIONWIDE CRIMES**

# VOICE. VIDEO. DATA.

## INTEGRATING STREAMS OF INFORMATION TO PRODUCE SMARTER POLICING

The key for public safety agencies is to have a solution in place that brings together information from multiple data sources making it actionable, such as: mobile and fixed video, sensors, weather, social media, personnel location, assets as well as CAD and records to process and analyze information, thereby delivering one, real-time operational view.

Video inputs. Incident and criminal complaints. Arrest records and photographs. National crime databases. 9-1-1 call records and more. All this data – which resides in separate databases – can be integrated for law enforcement in seconds instead of hours or even days.

## DATA SOURCES

**VIDEO INPUT**

**TEXT**
**911 CALL RECORDS**

**CRIME MAPPING SYSTEMS**

**PAROLE AND PROBATION DATABASES**

**NATIONAL CRIME DATABASES**

**INCIDENT DATABASES AND CRIMINAL COMPLAINTS**

**ARREST RECORDS AND PHOTOGRAPHS**

What's more, advanced video analytics and sensors that anticipate crowd formations and detects gunshots delivers an additional layer of intelligence. Advanced analytics integrates with the records and databases an agency already has – from parole to national crime records to court records and evidence management. Now when a crowd forms in a high crime area or a gun is fired in a sprawling city park, advanced analytics equips police with the relevant intelligence they need to be more proactive.

By integrating multiple streams of data and multimedia into one unified view, a badged officer in front of monitors can support first responders in the field as an incident develops. Both the technology and applications are giving that officer timely access to information from a myriad of sources to help the responder confront the situation and solve the crime quickly.

# USE RELEVANT DATA TO
# ACHIEVE MAJOR OBJECTIVES

## OBJECTIVE 1
## POLICE MORE OF THE CITY WITH THE SAME RESOURCES AND DRIVE DOWN CRIME

Wireless video networks and applications are empowering law enforcement worldwide. They deliver two-way streaming video. High-speed access to images and data. Coordination and correlation of public and private video security cameras and networks. And immediate access to real-time video of incidents as they unfold.

Agencies are monitoring their communities around the clock. Commercial districts, neighborhoods, high-risk areas, crowded public events, dangerous intersections, public transit vehicles, municipal buildings and more – now they can watch them all when they're not there. When a problem is detected, officers can be dispatched immediately, helping to shorten response time, maximize crime-solving and deploy resources effectively.

## OBJECTIVE 2
## REDUCE TIME SPENT ON INVESTIGATIONS

Police are gathering relevant information and delivering it directly to their officers on patrol. They are using integrated information, available 24/7/365, to provide investigative support. Comprehensive and up-to-date information is being sent to detectives instantly on scene to help them identify patterns, eliminate extra steps, reduce time and strengthen their investigation of the crime.

## OBJECTIVE 3
## INCREASE CONVICTION RATES

By aggregating multiple data sources such as wireless real-time video, public safety agencies are preventing crime and putting criminals behind bars. In Chicago, a network of public and private surveillance cameras has led to more than 5,500 arrests since 2006.[2] The video record that deters a crime does double duty as serious evidence in court. In fact, when an incident is captured on video, 90 percent of defendant cases plead out.[3]
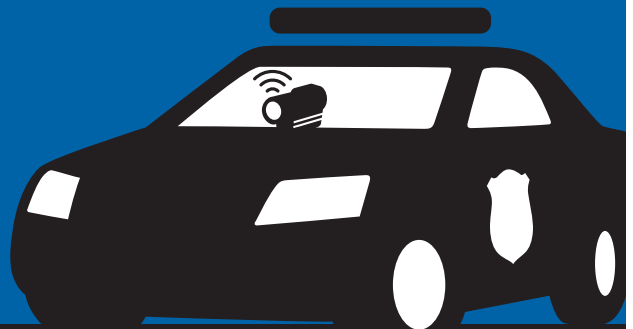
## OBJECTIVE 4
## INCREASE CLOSURE RATES

By having these additional data points at their fingertips, police have the information they need to solve crimes effectively and expediently.

**SURVEILLANCE CAMERAS LED TO OVER**
# 5,500 ARRESTS
**IN CHICAGO**

# 90%
**OF DEFENDANT CASES PLEAD OUT WHEN CRIME IS CAPTURED ON VIDEO**

# INTELLIGENCE-LED PUBLIC SAFETY SOLUTIONS HELPING SOLVE AND PREVENT CRIME IN REAL TIME

## NORTHEASTERN CITY OF APPROXIMATELY 1.5 MILLION

Implemented an Intelligence-Led Public Safety concept utilizing the Real-Time Intelligence Client to increase situational awareness and direct deployment. Analysts from a Real-Time Crime Center (RTCC) see every incoming 911 call and pull up video images from crime scenes immediately. When officers respond, the Real-Time Crime Center already has video footage that shows which way a perpetrator ran or what a shooter looked like. This speeds response and gives officers a head start before they arrive on scene.

## SOUTHWESTERN CITY OF APPROXIMATELY 2 MILLION

Intelligence-Led Public Safety solutions are used to expediently capture and provide field officers and investigators with instant, comprehensive information to help identify suspects, crime patterns and prevent emerging crime. During the commission of a heinous crime, investigators used Intelligence-Led Public Safety solutions to obtain substantial information on suspects, including pictures, addresses and other identifiers. This resulted in the apprehension, arrest and prevention of other crimes by these violent offenders.

## EAST COAST CITY OF APPROXIMATELY 600,000

Developed an Intelligence-Led Public Safety concept as the nerve cell for police operations, with computer displays of busy intersections, incoming 911 calls and city maps. When a major crime breaks, intelligence operators instantly communicate what they see on the screens to officers dispatched to the incident. For example, after intelligence operators witnessed a shooting on a video feed, they relayed details about the gunman, including his exact location, to responding officers.

## WESTERN CITY OF APPROXIMATELY 85,000

Linked with thousands of private and government-owned cameras to put more digital eyes on the streets. Their Intelligence-Led Public Safety concept gives officers instant access to integrated databases and video feeds. Software at the operations center also includes license plate reading and facial-recognition technology, and allows them to tap into criminal histories for suspects and city addresses. Officers receive data enroute to an incident and continual updates once they arrive.

# STAY A STEP AHEAD OF CRIME
## HERE'S HOW TO START

For most police departments, the focus and field of expertise is crime-fighting and crime prevention, not implementing and managing technology. How can your agency straddle these two realities? Solve immediate needs while simultaneously preparing for the future? Leverage existing technology and benefit from the latest systems and applications to stay a step ahead of criminals?

Does your department have the internal resources – long-term strategy, technological expertise, technical staff and sufficient budget – to plan, implement and manage the right solution?

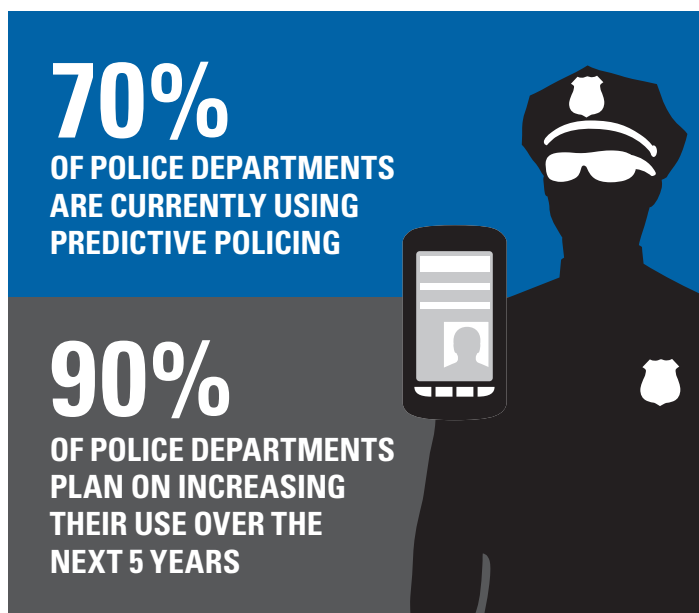## MAKE SKILLFUL PLANNING YOUR FIRST PRIORITY

Planning is the springboard to help your agency utilize existing technology and foster intelligence-led policing to better enable your organizational goals. It's essential to assess and develop the right technology solution and budgetary roadmap for your agency. Begin by looking at each stakeholder and consider how you will secure critical buy-in for your technology. Which agencies and jurisdictions will you be working with and how aligned are their needs? How can you use the technology and capabilities you already have in-house?

Think about how you are using multimedia data today. Are you optimizing your technology investments? If you have a video wall, for example, are you using it dynamically or statically after a crime has been committed? Consider other types of analytics that handle everyday monitoring and only present video or generate an alarm when something unusual is detected — such as abandoned luggage or a vehicle in a restricted area. These analytics let your agency proactively respond without overwhelming personnel.

**70%**
**OF POLICE DEPARTMENTS ARE CURRENTLY USING PREDICTIVE POLICING**

**90%**
**OF POLICE DEPARTMENTS PLAN ON INCREASING THEIR USE OVER THE NEXT 5 YEARS**

## PUT NEW AND EXISTING TECHNOLOGY TO WORK

A number of public safety agencies have begun making investments in Intelligence-Led Public Safety solutions within their Real-Time Crime Centers to put all the data to work for them. If proper planning is done upfront, they can be built to receive information from multiple data sources, process them with real-time analytics and deliver one operational view.

Planning ahead and making the right choices means your investment is part of a longer-term strategic vision for continuous improvement — not technological obsolescence. Assessing your situation objectively and drilling down, from concept to plan, enables you to prove the value of your new or refreshed technology and manage resources efficiently.

## TURN DIVERSE DATA INTO TARGETED RESPONSE

Proactive and predictive policing is the wave of the future, here today. Seventy percent of police departments are already using some form of predictive policing, and ninety percent plan to increase their use over the next five years.[4] As they do, they must operationalize all the information streaming in.

By implementing Intelligence-Led Public Safety solutions that build on current infrastructure and integrate outside sources, law enforcement can move from reacting at a moment's notice to responding based on intelligent predictions and targeted counteractions. When they shift their focus to information-based prevention and better optimization of resources, departments are able to do more with less — without compromising the safety of citizens or personnel.

# EXPERIENCED PARTNER TO BRING IT TOGETHER

All the data in the world is only as powerful as those who know how to decipher and distribute it. That's why it is important to work with a partner who intimately understands the needs of public safety and specializes in using your existing technology to integrate data from across the government enterprise.

We can help you apply analyses to turn information into actionable intelligence, make information accessible to the people who need it most and make more informed decisions. Together we can work to increase situational awareness for first responders, shorten response time, prevent crime, aid investigations — and ultimately create safer cities and thriving communities.

## SOURCES

1. "Stopping Crime in Real Time", The Police Chief, September 2006

2. "Video Camera Networks Link Real-Time Partners in Crime-Solving", Government Technology, Feb. 1, 2012

3. "The Impact of Video Evidence on Modern Policing", IACP 2005, page 26

4. "Critical Issues in Policing Series: How Are Innovations in Technology Transforming Policing?" Police Executive Research Forum, January 2012

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