The Miami-Dade Police Department (MDPD) used IBM’s advanced analytics technology to help officers fight crime and ensure public safety.

They can make better decisions faster by finding links among disparate crimes and gain a more complete view of a given situation.

They can also connect directly to park systems and other department operations for cross-agency collaboration and lead generation. Miami-Dade County is continuously gathering massive volumes of data from both its own systems and its extensive networks of video cameras and infrastructure sensors. Working with IBM, they have developed new ways to collect, consolidate, and use this data – helping drive their digital transformation.

Challenge

Always looking to improve the lives of its citizens, Miami-Dade County set its sights on finding a way to share data between departments and use the insights to improve public safety and reduce the threat to an essential economic driver – tourism. And although crime was decreasing in the city of Miami, the cost of fighting crime was skyrocketing, limiting the effectiveness of the police to tackle the huge caseloads of reported crimes.

Digital transformation

Miami-Dade County built an intelligent operations center to monitor data from all its departments – harnessing extensive video and sensor networks to boost public safety and optimize operations. They also have a holistic view across policing and justice partner agencies – removing barriers to information sharing and enabling agencies to focus solely on their mission of predicting, preventing and defeating criminals.

Using predictive analytics, MDPD can bring together digital evidence data in new ways to identify unique relationships and spot new and unknown patterns that have significant operational value for officers.
Targeting intelligent operations

Miami-Dade County is one of the largest counties in the United States, comprised of 34 municipalities and home to more than 2.6 million people. Managing such a geographically large and populous county efficiently and cost-effectively, with major sports teams, events, and tourists that strain resources, is a constant challenge.

County leaders realized that if they could effectively centralize and share information between its various departments, then they could significantly improve county operations, especially in public safety. They also realized that, to reduce crime and more quickly close cases, they needed to narrow down a list of possible suspects.

“We have 26 different departments that each manage a different aspect of the county, for example law enforcement, transportation, and parks and recreation. We knew that certain departments had data that would be particularly valuable to other departments, but we lacked an effective way to share information,” Carmen Suarez, Division Director of Enterprise Architecture Services at Miami-Dade County said. “We were generating huge volumes of data internally, and we had ample opportunity to collect even more from new sources, such as traffic and security cameras throughout the county. All we were missing were the tools to help us leverage this data to the fullest.”

IBM is helping us make Miami-Dade a better, safer place to live, work, and visit.
—Carmen Suarez, Division Director of Enterprise Architecture Services, Miami-Dade County

Transformative Results:

- **6%** rise in arrest rates with predictive modeling of crime patterns
- **Expected significant reductions** in the number of cold cases, resulting in more offenders being taken off the street
- Boosted law enforcement responsiveness with **real-time crime alerts**
- Reduced crime analysis from days to **minutes**

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—Carmen Suarez, Division Director of Enterprise Architecture Services, Miami-Dade County
We’ve been able to make exceptional advances in law enforcement and public safety. Take cameras for instance: we’re using IBM’s video analytics solution to recognize suspicious events and generate alerts.

—Carmen Suarez, Division Director of Enterprise Architecture Services, Miami-Dade County
Today, Miami-Dade County has an unprecedented wealth of data at its fingertips, and the tools to take advantage of it. For example, law enforcement is able to carry out crime analysis and create predictive models using IBM SPSS® software. This helps identify crime hotspots, and generates investigative leads by linking new reports to known criminal parties with the same method of operating. The system can use information such as property stolen, time of day, weapon used, and victim details to model what kind of suspect typically commits a particular crime and then generate and filter a suspect list to help solve cases faster. This type of analysis can also be used to help predict, anticipate and prevent future events.

The IBM i2 Intelligent Law Enforcement solution builds on the MDPD’s existing technology investments so there was no need to “rip and replace” infrastructure.

It works by bringing together disparate data sets and allowing the entire department access to digital evidence data they need, using an officer’s time more effectively when they are looking for information. It will also incorporate MDPD’s existing use of predictive analytics for suspect lead detection.

“By integrating the various big data, artificial intelligence, predictive and Internet of Things analytics together on the IBM Intelligent Operations Center platform, we will be able to get a good idea of what’s going on everywhere in the county in near real-time – this will be a huge benefit for public safety.”

Since we’ve started analyzing crimes with IBM SPSS, we’ve seen a 6% improvement in arrest rates.

–Carmen Suarez, Division Director of Enterprise Architecture Services, Miami-Dade County

Learn how to manage digital evidence data to transform your agency and make your public and officers safer.

Or contact your IBM sales representative or IBM Business Partner.

To find out more, go to ibm.com/government and follow us on Twitter @IBMindustries.

About Miami-Dade Police Department

The Miami-Dade Police Department is the largest in the Southeastern United States, with nine district stations throughout Miami-Dade County, which spans more than 2,000 square miles, including the city of Miami and the Everglades National Park.