THE TIME FOR PUBLIC SAFETY DIGITIZATION IS NOW

INDUSTRY PERSPECTIVE

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Mark Rogers, Senior National Security Adviser, Cisco

INTRODUCTION

It's no secret that the landscape of public safety and law enforcement in America is changing. Law enforcement agencies face a diverse set of threats and challenges, while at the same time providing support for humanitarian missions and disaster response in communities.

It's not only the mission and threats that are evolving in the public safety landscape, however. Technology is swiftly changing and enabling law enforcement officials to better communicate, collaborate and connect – both internally among departments and externally with the citizens and communities they serve. But many agencies and departments are falling behind in adopting this necessary digital transformation, a fact that puts the very mission of public safety – and citizens' lives – at risk.

To discuss why the digitization of public safety is at a critical turning point, GovLoop partnered with Cisco, a leader in information technology and networking, for this industry perspective. In the following pages, we'll discuss what digitization means to law enforcement, benefits that public safety organizations and the public see when an organization is digitized, and solutions to help public safety departments transform digitally. We'll also speak with the following Cisco experts to gain their insights into this important topic:

- o **Daniel Stewart**, Senior Justice Adviser.
- o **Desmond Racicot**, Senior Law Enforcement Adviser.
- o **Mark Rogers**, Senior National Security Adviser.
- o **Cindy DeCarlo**, Director, Public Safety and Defense.

WHAT DIGITIZATION MEANS TO LAW ENFORCEMENT
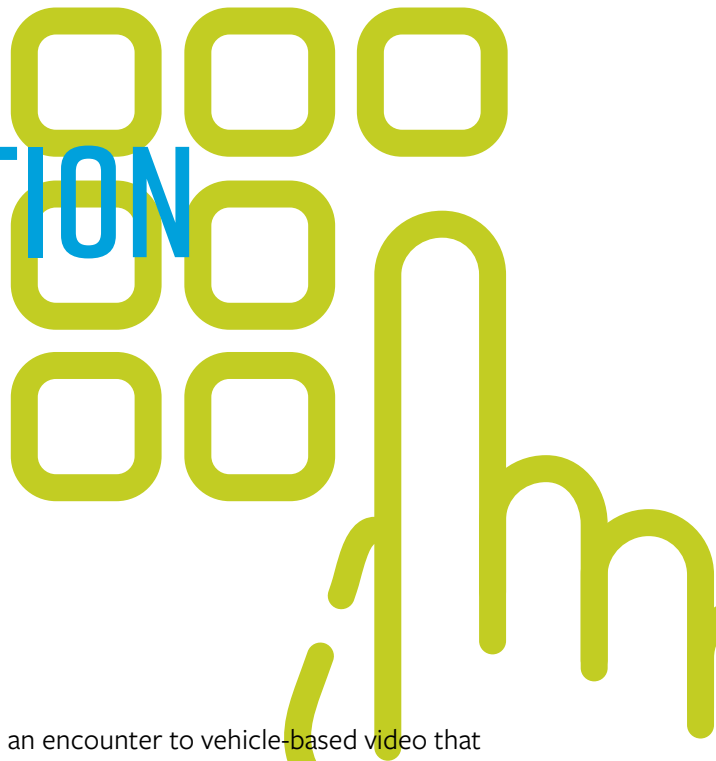
Digital transformation or digitization can mean different things to different organizations, but for public safety and law enforcement, it essentially means this: the realignment of and new investment in technology, innovation and practices to more effectively execute an agency's or department's mission.

"It's really the cultural change for the public safety industry, from the old way of business into a quicker and more responsive way of business," Stewart said.

This transformation moves law enforcement away from standalone and stovepiped solutions and toward a unified enterprise public safety approach that can join employees, processes, data and devices via digital tools to empower them with new capabilities and increased operational efficiencies.

"It is about the technology," Rogers said, "but it's more than that, too. It's the act of getting the right information, at the right time, to the right person, with the goal of furthering an agency's mission. The technology simply enables the mission."

For today's public safety officers, the need for access to critical information in real time is more urgent than ever. From automatic license plate recognition that empowers officers with more accurate knowledge

before an encounter to vehicle-based video that provides an extra set of eyes so officers are never alone, creating a complete sensory environment has become critical to protecting the lives of officers and citizens alike. "Digitization allows different law enforcement organizations to communicate in real time. Often criminal cases cross jurisdictions. For example, if a city police department is working a case that crosses into a state or federal area, the right technology means getting the information to those agencies in seconds. That collaboration can be the difference of solving the case and keeping the community safe. We're all on the same side," Racicot said.

Simply put, the potential benefits of true digitization in law enforcement and public safety cannot be understated. Modern technology can support everything from better data analytics to clearer communication to new tools that can help law enforcement officers save lives.

And it's more important than ever to deploy these solutions with a focus on cybersecurity protections. Today, the public safety sector faces innumerable challenges from new and evolving threats and trends, and they are more often than not ill-equipped to face these trials.

TRENDS IN LAW ENFORCEMENT DIGITIZATION

Some of these new digitization trends include:

Wearables and video: Wearables that record information and video add a whole new dimension to national security and public safety. Body-worn cameras, video surveillance cameras, microphone systems, sensors and other technologies provide necessary information for law enforcement and national security agencies.

The Internet of Things: IoT means connecting unconnected people and things, and it's transforming public safety. For example, officers could have access to live streaming videos when they arrive to an active shooter engagement at a campus, or be able to proactively respond to a sensor feed that shows unusual traffic at a known trouble-spot.

Secure mobile communications: As more content and more types of content are collected, communicated, accessed and analyzed on mobile devices, much of it will be confidential and some may be classified for investigative or national security reasons.

Analytics and big data: Big data refers to large and complex datasets that traditional data processing techniques cannot handle. Agencies need to use analytics and analytical modeling, including predictive modeling, threat analysis, risk analysis, event management and other technologies, to derive better and more relevant information from the data being collected.

Cybersecurity: Never has it been more important to ensure that the public safety environment is protected from the enterprise to the edge. As vehicles become remote offices, leveraging FIPS 140-2 certified encryption is a must. Sensitive inmate/attorney communications must be protected from eavesdropping. Criminal justice information systems files need to be safe from ransomware and exfiltration. A robust security architecture is a necessity.

Clearly, these technology trends could transform the future of law enforcement and public safety when effectively deployed. But given a variety of factors, it can be difficult to implement them. Everything from aging infrastructures to a lack of skills in IT implementation to siloed data and IT systems to reduced budgets makes it more difficult to start to take advantage of the possibilities digitization offers.

"Imagine a world when fire and EMS can come together on the same scene and are part of the same enterprise network that's supported by the county or the city," Rogers said. "That's what we're offering – for all public safety agencies to have a true collaborative nature and not have an independent, siloed approach, but a network that moves with the agencies that you need them to move with."

THE DIFFERENT FORMS OF DIGITAL TRANSFORMATION

Digitization manifests in many ways when it comes to the possibilities it brings law enforcement. Here are a few of the ways public safety can digitize their operations and processes.

SECURE COLLABORATION

The growing demand for law enforcement agencies to respond faster with up-to-the-minute information is driving the need for better communications and collaboration between public safety individuals, departments and agencies.

VIDEOCONFERENCING CAPABILITIES

Police departments have a larger need for videoconferencing capabilities than ever before. For example, they can leverage it to provide training to distributed staffs without having to travel to a central location. Families of the incarcerated can connect safely via video visitation from libraries or home. Chiefs can gather for "coordination meetings" across the state from their own offices. "As a chief for 14 years, I can attest that this kind of video training is critical. No municipality, federal or state agency has unlimited funds for training. This accomplishes the goal of well-trained officers without the high cost," Racicot added.

BODY-WORN CAMERAS & VEHICLE VIDEOS

The power of connectivity to provide secure, real-time and recorded video from the officer's perspective can improve situational awareness. It also helps public safety agencies avoid investigations prompted by public complaints, saving time, money and morale.

COLLABORATION TOOLS FOR THE JUDICIAL PROCESS

New collaboration tools enhance communications among local, state, county and federal entities, providing the ability to share critical information 'on the fly' and across traditional organizational boundaries.

IP TECHNOLOGY FOR INTEROPERABILITY

Law enforcement agencies nationwide have historically faced collaboration and communication challenges. Agencies often use different types of radios and other communications tools, and that lack of consistency makes communications coordination difficult. Increased interoperability is needed to help improve security and response.

DIGITIZATION OF EMERGENCY RESPONSE

An explosion in mobile devices is driving a new era in emergency communications. Next-generation 911 architecture empowers public safety with immediate collaboration capabilities across agencies anywhere, anytime and with any authorized device.

THE SOLUTION: PARTNERING WITH A THOUGHT LEADER & SYSTEMS PROVIDER

With all of the trends and challenges in public safety digitization today, it can be overwhelming for a department to decide how to move forward. That's where a trusted partner like Cisco comes in. With reduced workforces and constrained budgets, today's public safety agencies need cost-effective solutions to keep citizens and public spaces safe. Cisco provides secure end-to-end solutions to help government agencies respond to emergencies and protect their citizens.

The 21st-century public safety mission requires real-time and untethered interactions among field agents, law enforcement, intelligent sensors and intelligent analytics systems, and Cisco is able to provide the vision, infrastructure and network to support this digitization across any size law enforcement agency.

"In public safety our digital environments are like our homes, they hold our most private and priceless assets. Like burglars who case homes for easy targets, cyber criminals have a similar mindset looking for easy prey. Smart home-owners take proactive measures to secure their property. The same needs to be done in a digital environment," Chief Racicot said.

Cisco offers a holistic approach, one that goes beyond devices to encompass services, management and support. Digital technologies empower public safety organizations with an amazing array of new tools and increased operational efficiencies, enabling teams to respond successfully to increasing threats. Cisco brings an integrated platform across networks, data centers, cloud, security, collaboration, analytics and IoT for faster digital transformation with reduced risk. By helping public safety agencies personalize citizen experiences, transform processes and empower their personnel, Cisco can help public safety officials make their communities safer and help improve lives.

CASE STUDIES: DIGITIZATION IN LAW ENFORCEMENT

Missouri State Highway Patrol

With more than 1,350 officers, the Missouri State Highway Patrol (MSHP) is one of the largest law enforcement agencies in the state. MSHP is responsible for statewide law enforcement, especially as it relates to highway safety. Historically, the agency faced collaboration and communication challenges because different types of radio or other tools made consistent communication and technology difficult. MSHP wanted to increase interoperability among agencies to improve coordinated responses, and they knew they needed to respond more agilely in emergency situations by having a method for easy, on-the-ground management and reliable communication tools.

To this end, MSHP decided to deploy a mobile command and communications vehicle (MCCV). The vehicle can go onsite when disaster strikes and act as a command center for on-the-ground management and as a central processing center for communications. The vehicle is equipped with multiple Cisco solutions to help the agency more easily connect during a crisis, including Cisco TelePresence technology, video surveillance, satellite communications and IP telephony. These tools allow the MCCV to do everything from receiving video feeds from a helicopter to easily sending information back to the State Emergency Management Agency.

The real key to the MCCV's success, and what allows it to do all this onsite, is Cisco IPICS (originally called the Cisco IP Interoperability and Collaboration System). The IPICS server software enables radio communications over a reliable, secure and scalable IP network. It bridges different communications networks to allow emergency responders to exchange information quickly and easily using radios, telephones, mobile phones and PCs.

Suffolk County Police Department

The Suffolk County, N.Y., Police Department (SCPD) is one of the largest police departments in the United States. With about 2,400 active officers who patrol more than 900 square miles, SCPD is responsible for protecting nearly 1.5 million people every day. Because of the department's large scale and reach, SCPD leadership has sought solutions to train its officers and manage all of its operations more efficiently.

SCPD traditionally conducted training in a variety of ways. There would be instruction at a centralized location, monthly inspections, roll call and training videos that were viewed during an officer's administrative time. Most commonly, officers would have to travel to the police academy for mandatory trainings. This meant that officers were pulled away from their usual duties and had to transport themselves to the central location, which was up to a 45-minute drive for some.

Keeping in mind that one of the biggest elements of police communication and training is face-to-face interaction, SCPD prioritized a solution that would allow officers to provide instant feedback on cues, movements and facial expressions that are critical in responding to emergencies. Therefore, SCPD determined that a video platform would be the ideal solution because it has the potential to provide the same benefits as face-to-face communication, but without the travel. SCPD researched, tested and implemented pilot programs for various video platforms, and selected the Cisco videoconferencing solution because it is both high-quality and easy to use — something that was crucial to officers who, amid an emergency, don't have time to troubleshoot technical failures.

CONCLUSION

Public safety and emergency response challenges are growing in complexity, and expectations are rising with increasing demands for critical communications across a burgeoning spectrum of voice, data and video. In a crisis situation, every second counts. Potentially life-threatening situations change in a heartbeat, and decisions must be made quickly.

Given these facts and today's technology and capabilities, there's never been a better time to digitize public safety. Digital transformation, when conducted with a trusted partner, can empower law enforcement agencies with an array of solutions that personalize the user experience, streamline processes and enable personnel to increase efficiencies, support communities and even save lives.

ABOUT CISCO

Cisco designs and sells broad lines of products, provides services, and delivers integrated solutions to develop and connect networks around the world. For over 30 years, we have helped our customers build networks and automate, orchestrate, integrate, and digitize IT-based products and services. In an increasingly connected world, Cisco is helping to transform businesses, governments, and cities worldwide.
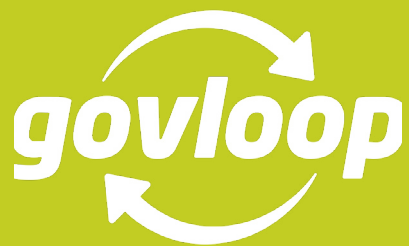
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ABOUT GOVLOOP

GovLoop's mission is to "connect government to improve government." We aim to inspire public-sector professionals by serving as the knowledge network for government. GovLoop connects more than 250,000 members, fostering cross-government collaboration, solving common problems and advancing government careers. GovLoop is headquartered in Washington, D.C., with a team of dedicated professionals who share a commitment to connect and improve government.

For more information about this report, please reach out to **info@govloop.com**.

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