PROTECTING COMMUNITIES AT THE SPEED OF DIGITAL INNOVATION

How State and Local Governments are Modernizing IT to Transform Law Enforcement and First Response.

vmware®

Supporting Next Generation Public Safety

Modern-day policing and first response require fast and always-available access to information. Without it, police officers, first responders, and emergency personnel are at a disadvantage against criminals and natural disasters. Innovative digital solutions provide new, engaging approaches to fulfilling missions and keeping communities safe. Is your department's IT foundation ready to support next-generation public safety?

The Digital Reality of Public Safety

Mobile devices in patrol cars. Real-time reporting and collaboration. Sensor-based wearables and surveillance. Cloud-based evidence management. More efficient dispatcher desktops. Each of these modern capabilities requires your IT organization to evolve existing and prioritize new software investments.

Protecting today's digitally connected and mobile society demands it. Expectations are high for more modern, efficient, and convenient government services, and public safety agencies—police, fire and rescue, and emergency services—are on the frontlines. Both citizens and officers expect to have the information they want, when they need it.

Behind the scenes, department IT organizations are working hard to navigate a new landscape of innovation and opportunity as they see:

- Rich data sets, powerful mobile form factors, Internet of Things (IoT) sensors, and cloud delivery models working together to optimize government services and outcomes.
- Machine learning, evidence-based decision making, and predictive response helping to put the right resources in the field, at the right time.
- Empowered officers and first responders, outfitted with the latest mobile form factors, applications, and capabilities—powered by cloud and accessible via any device and location—spending more time in the field, and less time on administrative paperwork.
- Digital technologies transforming missions, without having to acquire new skillsets to manage foundational change.

Now is the ideal time for your IT team to take a more strategic role in transforming mission outcomes. As a change agent and conduit for digital transformation, IT and a proven digital solutions partner such as VMware can help your agency maximize operations and effectiveness while containing costs.

Under the Covers: The Technology Behind Digital Progress

New technologies and citizen expectations have law enforcement and public safety agencies reexamining their IT infrastructure. To become more agile and flexible, state and local governments are building software-defined computing environments that can manage and secure any application, any device, and any cloud now and into the future. VMware offers a pragmatic, value-added path to IT modernization that taps the power of data centers, cloud, and mobility to improve public safety operations and outcomes while containing costs.

Software-Defined Everything

As a foundation for IT modernization, compute virtualization—pioneered by VMware—helps agencies efficiently deal with increasing demand for IT services while reducing data center hardware, energy, and operational costs. A majority of agencies have already virtualized physical servers using VMware vSphere®, establishing a common foundation for digital transformation and optimization. Now, advanced VMware virtualization solutions are further modernizing IT delivery—transforming security and storage, extending to any cloud, and supporting apps, data, and information delivery anytime, on any device, wherever work is being done.

Virtualized compute, storage, networking, and security make up the software-defined data center (SDDC), a model VMware designed to enable IT operations governed fully by software across a common management platform. VMware's SDDC architecture is key to interoperability with any application, device, or cloud, enabling greater flexibility when deploying the latest digital technologies.

The SDDC is also highly programmable, enabling agencies to automate and standardize configurations and management, and fulfill the goal of doing more with fewer resources. Agencies that partner with VMware can drastically simplify data center management and reduce operational burdens with a software-defined everything approach.

A software-defined model also helps departments fight cyber threats. By abstracting physical resources across the entire IT environment—infrastructure, apps, networks, and endpoint devices—agencies strengthen security and gain full visibility, context, and control of interactions between users, apps, and devices. This same open and ubiquitous architecture provides comprehensive policy-based governance and automation and allows for the insertion of third-party security and compliance services.

VMware compliance capable, audit-ready solutions (CCRS) map VMware products with specific compliance requirements, such as Criminal Justice Information Systems (CJIS) v5.5. VMware technologies undergo extensive testing, including a complete independent audit. Customers can also verify CJIS compliance using VMware's independent CCRS CJIS lab, built on VMware Validated Designs™ and fully audited by a third-party auditor to meet CJIS requirements.

LEARN MORE
Visit https://www.vmware.com/solutions/compliance-cyber-risk.html.

The Case for the Digital Workspace

Police officers, first responders, and emergency personnel face increasingly difficult daily challenges. With the right digital technologies, personnel can dramatically improve mission outcomes, for example:

- When a call comes in, dispatchers accessing virtual or cloud-based computer-aided dispatch (CAD), records management systems (RMS), and productivity applications can speed response times and situational awareness.
- On-scene, wearables and ruggedized tablets connecting to justice, medical, and productivity apps can improve decision making and reporting.
- At the precinct, cloud-based solutions can connect investigations to evidence management and simplify cross-jurisdictional collaboration.
- Behind the scenes, IT can improve the quality and cost of first response with centralized, policy-based management of devices, apps, and data.

Mobility doesn't have to be a strain on your department, even if you are managing disparate point solutions, devices, apps, and users. The VMware digital workspace simplifies the user experience and eliminates compatibility and portability issues while ensuring enterprise security and control.

With a focus on the user experience, the VMware digital workspace replaces mobile point solutions with integrated identity management, application delivery, and multiplatform endpoint management to provide central, seamless, and secure remote access to apps and data from anywhere. It represents a fundamental shift in the way public safety services are delivered and consumed and, based on a software-defined architecture, it enables agencies to

- Give personnel seamless access to the information they need, when they need it, on any device.
- Give IT visibility and granular management of all users, applications, and device types (even desktop PCs) from a central console.
- Enable mobility without risking security or noncompliance.
- Support both modern and legacy applications on any device.
- Ensure a seamless, modern user experience with a centralized, easy-to-use app catalog and over-the-air delivery of apps, policies, and updates.

THE CLOUD IS A JOURNEY, NOT A DESTINATION

As a computing model, cloud helps budget- and resource-constrained public safety organizations successfully deploy new technologies, store data, and collaborate with other agencies. Justice and public safety (JPS) organizations are initiating next-generation 911 and emergency call center rollouts using cloud-based technologies that expand outreach beyond voice to include VoIP, SMS, GPS, video, images, live feeds, and social media, as well as analyze and synthesize big data to enhance situational awareness and predict crime patterns.

KEY QUESTIONS

- How are you delivering apps to a mobile trooper/sheriff/officer/first responder?
- How do you respond to changing CJIS requirements?
- How are you using mobility to improve citizen and officer safety?

Rethinking Dispatcher and Department Systems

The workstation is the heart of deskbound public safety operations. For dispatchers, analysts, administrators, investigators, and other personnel, fast, reliable access to information and services is critical to informing decisions. Yet for many, the desktop experience is unreliable, sluggish, and inflexible.

For example, the Maricopa County Sheriff's Office (MCSO) desktop setup at the county's 911 dispatch center caused intolerable downtime and productivity issues in addition to high equipment and system maintenance costs and concerns about data security. As the county looked to upgrade its desktop architecture, it focused on three major initiatives:

1. Improve citizen service delivery – MSCO wanted to address the shortcomings of the previous system, so dispatchers could respond faster to 911 calls.
2. Strengthen data security – MCSO needed to keep sensitive law enforcement data isolated from programs that access online resources.
3. Minimize hardware requirements – The sheriff's office wanted to reduce the amount of equipment per dispatcher console at the new facility.

Since MCSO had already partnered with VMware to virtualize its server fleet, the office extended virtualization to its dispatcher desktops and applications, abstracting functionality and management from hardware to software to improve delivery, user experience, and performance. MCSO now provides two virtual desktops per 911 dispatcher: one for the Intergraph CAD application and the other for office productivity, including email, Internet access, and internal applications. With virtual desktops, dispatchers log in and access information faster and experience fewer interruptions, and IT is able to take advantage of centralized, over-the-air management to alleviate routine maintenance, such as patching or upgrading software.

THE INTERNET OF (EVERY) THINGS

Internet of Things (IoT) sensors are transforming urban environments, meeting the needs of populations that are increasingly reliant on digital services and interconnectivity. IoT is also reshaping emergency management, first response, and public safety outcomes. An IoT-enabled world offers the prospect of dramatically improving the speed and effectiveness of first response and prevention, through real-time collection and analysis of a much richer set of data from a larger set of diverse and connected devices. Public safety agencies are already implementing sensors and surveillance to:

- Detect emergency vehicles and alter traffic flow
- Detect harmful substances
- Detect gunfire and alert police

Potentially unlimited applications and endpoints make taming IoT an important initiative for public safety departments. VMware enables agencies to deploy, manage, monitor, and secure IoT infrastructure in a consistent and streamlined way through its Pulse IoT Center solution and ecosystem of IoT partners and expertise.

Law enforcement and public safety departments can better protect and serve when they choose to modernize their IT foundations. VMware's software-defined everything approach to IT accelerates digital transformation, helping law enforcement and first response agencies secure entire device fleets, deliver any app to any device, and keep patrol and first response resources where they belong—in the field.

With a VMware software-defined foundation—extending from the data center to desktops, mobile devices, applications, and cloud—public safety departments can successfully enable next-generation policing and first response, mobile command posts, continuity of operations, cross-jurisdictional collaboration, joint task forces, real-time crime centers, and participation in FirstNet.

Learn more at www.vmware.com/go/government.

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