

vmware®

Empowering the Future-ready Police Force





Delivering the Safe and Prosperous Nation

The landscape in which crimes are planned and executed has completely changed over the last decade or so. Today, matching or anticipating criminal activity is increasingly challenging for police forces.

Digital is changing the rules of engagement. Many criminals are becoming more 'efficient' – using digital technology to pull off ever more sophisticated attacks on unsuspecting victims. Criminals are using it to cover their tracks, exploit their victims' weaknesses and escape justice.

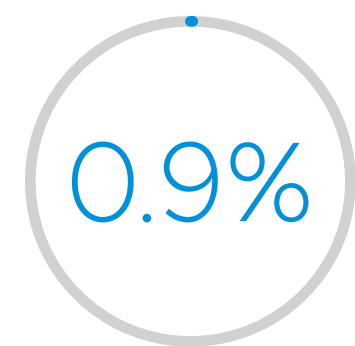
Yet despite the increase in threat volume and variety, police budgets have, typically, not increased – so police forces are having to do more with limited budgets.

Right now, and for the decade ahead, digital technology represents the most efficient tool to crush crime. Digital is central to making law enforcement the cornerstone of a safe and prosperous nation.

This concise eBook from VMware identifies specific areas of consideration for law enforcement agencies as digital technology steps up to empower the future-ready police force.

The Landscape Today – A Brief Overview


Law enforcement in Europe is, objectively, very tightly funded.



Within the EU-27 general government total expenditure on 'public order and safety' **in 2018, 0.9% of GDP was spent on 'police services'.**

Police departments are under extreme pressure to do more with less and most would describe themselves as underfunded. Yet crime today is expanding on many fronts, and it's doing so with the help of digital technology. Digital instruments and platforms are being used daily by criminals to run operations.

The opportunity for criminal abuse is expanding; examples include criminals meeting on the dark web and being paid in Bitcoin.



Police need to be able to effectively monitor and intercept social and digital media, in order to meet (and hopefully get ahead of) how criminals are leveraging digital today. They need to be able to maximise their time in the field, and rely on apps and devices wherever and whenever needed.

They need to be able to utilise the very latest advanced analytics in order to drive and sustain 'predictive policing', and to be able to use smart automation coupled with analytics wherever possible in 'everyday' street policing. And all their digital efforts need to be secure and reliable enough to hold up in court.

The impact of Covid-19 has also put additional strain on police departments with delays to investigations accelerating the need to sensitively deliver Community-Oriented Policing (COP).

Add to all of this the imperative for police forces today to recruit and retain top talent (which means delivering a digital workplace) and the scale of the present challenge becomes clear.



Making the Difference Count

The potential applications for the innovative use of digital technologies within policing are wide and deep. Police forces the world over are seeing game-changing results in areas that include but aren't limited to the following:

DISTRIBUTED SENSING AND VIRTUAL PATROLS

Using IoT and smart sensors to compile many different types of information helps officers do their jobs faster and more effectively. Virtual patrolling, for example, allows officers unprecedented awareness in their environments.

The ultimate goal is to be able to help officers be in the right place, at the right time with the right information to hand.

ARTIFICIAL INTELLIGENCE AND PREDICTIVE POLICING

Leveraging data to prevent crime, Artificial Intelligence & Machine Learning can play a key role in investigations.

For example, AI can help in the location of missing children by analysing massive amounts of data. In England, it's being deployed to analyse CCTV footage, and in India it was used to find around 3,000 missing persons within four days.

EVIDENCE-BASED POLICING

EBP can analyse data about the outcomes of police interactions to help find the most effective methods and tools while minimising the use of tactics that could make situations worse.

EBP aims to pair them with outside assistance, such as academic researchers or computer programmers, to help focus their efforts on the most effective police work. Highly pertinent in an era when many police officers are being asked to do more with fewer resources.

TECHNOLOGY AS AN IN-FIELD PARTNER

Advances in everything from 5G to augmented reality are allowing officers to see, hear and act in previously impossible ways.

For example, an officer arriving at an unfamiliar situation can now use AR glasses to see pertinent information about prior calls from this address, find exits from a building, or see the recent criminal history on the block.

New tech can also provide digital back up in the field.

NEW MODES OF COMMUNITY INVOLVEMENT

Examples include communities now using apps where citizens can report minor issues such as graffiti or suspicious activity to police, giving them real-time awareness.

Yet human relationships cannot be managed by tech alone: combining innovative approaches such as evidence-based policing will refresh these relationships by changing the ways and times officers interact with their communities.

A Fourfold Focus for Success

With such a broad range of possibilities for technology to make a difference, it's possible for budget holders to become 'snow-blind' and feel paralysed rather than empowered by the opportunity. Knowing **where to start** often involves working with technology partners who have proven experience of success.

A critical consideration for police agencies (and governments) is to be able to de-risk decision making. Again, this is where an experienced technology partner at your side is invaluable. There are four key areas where law enforcement agencies would be well advised to concentrate their digital focus to see quick, measurable, sustainable acceleration and improvement. Click the titles below to gain quick access to the relevant section.

Click on the chapter titles below to navigate to those sections in the eBook.

On-the-field Efficiency

Efficiency isn't about box-ticking; it's about making much more of an impact when in the field, and building a safer environment for the population. Technology can provide a neutral platform for police accountability and transparency, restoring society's trust in policing as a force for prosperity and safety.

Digitisation drives real, practical benefits and makes a difference to the day-to-day lives of police officers. Having all relevant apps available in your hand, with all the right information at the right time including access to powerful data bases wherever you need, is a force for success. Reducing paper-based processes means a reduction in lost time, and a greater optimisation of time in the field thanks to automation and accuracy. Police officers have reported upwards of one hour time saving per day through not having to return to a police station to fill in every report. With police on the streets longer, people feel safer. Law enforcement agencies are averaging three-month backlogs on investigations; however, budget constraints are limiting digital investigation efficiency.

Investigators need better tools to sort, review, and analyse the variety of different data that comes from different sources. Police agencies must harness digital technologies to improve officer and citizen safety.

Big data and advanced analytics are the foundation which give you real AI. Modern IT solutions function as an amplifier of capacity for advanced analytics, also giving predictive capacity. AI is assisting with spotting non-violent crimes, IoT-driven wearables are supporting smarter policing and officer safety, and such innovations as robots and drones are set to become an inextricable part of the future of the modern police force. (Some agencies are already using small autonomous drones which can follow officers, scout locations, and provide video streams so that no officer has to go into a situation completely alone.)

All of these necessitate the reliable and secure use of very big data.



Cost-reduction through Cloud Innovation

With police forces needing to significantly reduce operational costs while improving operational efficiency, driving mission agility and expanding digital capabilities fast, moving to the secure consumption of cloud services helps to provide agile and scalable services.

There is now a broad consensus among police forces that the future of law enforcement lies in the cloud.

On-prem private clouds are extremely inexpensive compared to existing siloed legacy and offer agencies the ability to defragment their technology infrastructure. This empowers on-demand scalability via a secured hybrid cloud.

The right technology partner will help transform operations by bridging legacy environments to cloud, allowing agencies to streamline IT operations, increase efficiency and reduce costs while achieving flexibility and strengthening data security.

A strong cloud foundation can enable consistent, secure infrastructure and operations across private and public cloud for police agencies. Further savings come from being able to simplify multi-cloud operations, and observe, analyse, and operate Kubernetes-based infrastructure and the services running on the cloud to gain efficiencies and optimise costs.

An application such as VeloCloud by SD-WAN allows law enforcement agencies to truly unleash the power of digitisation to drive operational efficiency and empower workforce mobility. Reliable and robust connection delivers accuracy of data and information, and drives collaboration.

Additionally, the right technology can help police agencies improve service delivery by increasing efficiency, productivity and response with seamless access to government applications, data and resources across devices and locations.



Talent Acquisition and Retention

On top of all of the above, a serious concern for police forces today is talent acquisition and retention. With IT and technology roles in non-governmental departments today looking both more interesting and better remunerated, it is an uphill struggle to get the knowledge and skills on board. Police IT departments are the unsung heroes of today.

They need to be elevated and supported.

VMware can help greatly improve acquisition, job satisfaction, and employee retention for law enforcement agencies.

As more law enforcement officers and staff have to (or choose to) work either from home or remote locations, IT solutions must step up to add great value: secure and scalable digital-first infrastructure can scale access to critical apps and data; deliver, secure, and manage devices; and optimise network and access.

Taken together, this delivers better job satisfaction and success. Operatives can make investigation reports on the spot, better utilising their time.

Better applications and platforms – which are genuinely satisfying to work with – elevate the role of IT, delivering innovation through leading-edge applications, and making the police a more attractive proposition for leading IT specialists.



Supporting Future-ready Policing through Continuous, Secure Innovation

Cloud is the engine that unlocks the power of automation, while its storage and processing power unleashes AI capability. IT isn't an 'option', it's the foundation.

Transforming law enforcement
without upgrading IT just
doesn't work.

Security and compliance are critical: the police need to be seen as standard bearers and best-practice users. With increased privacy laws, data compliance is now of paramount importance. Apps today need to be secure, reliable and flexible – this means creating and securing the right platform.

Technology partners with proven experience in the sector, like VMware, enable law enforcement agencies to counter threats with a security approach that is embedded into every layer of the infrastructure – from any cloud to apps and devices, strengthening data protection.

The goal is to help agencies extend mobility while managing risk and giving agencies control over digital experiences, from onboarding devices to managing content and applications. It's about providing secure, seamless access to the data and devices police need – anytime, anywhere.

The notion of security also extends to keeping the public safe (“Protect and Serve”...).

VMware is helping police agencies use new technology to combat crime, keeping them one step ahead of the innovation and new tactics that criminals use. Examples include using technology to track random movements in human trafficking or to identify fraud and money laundering.

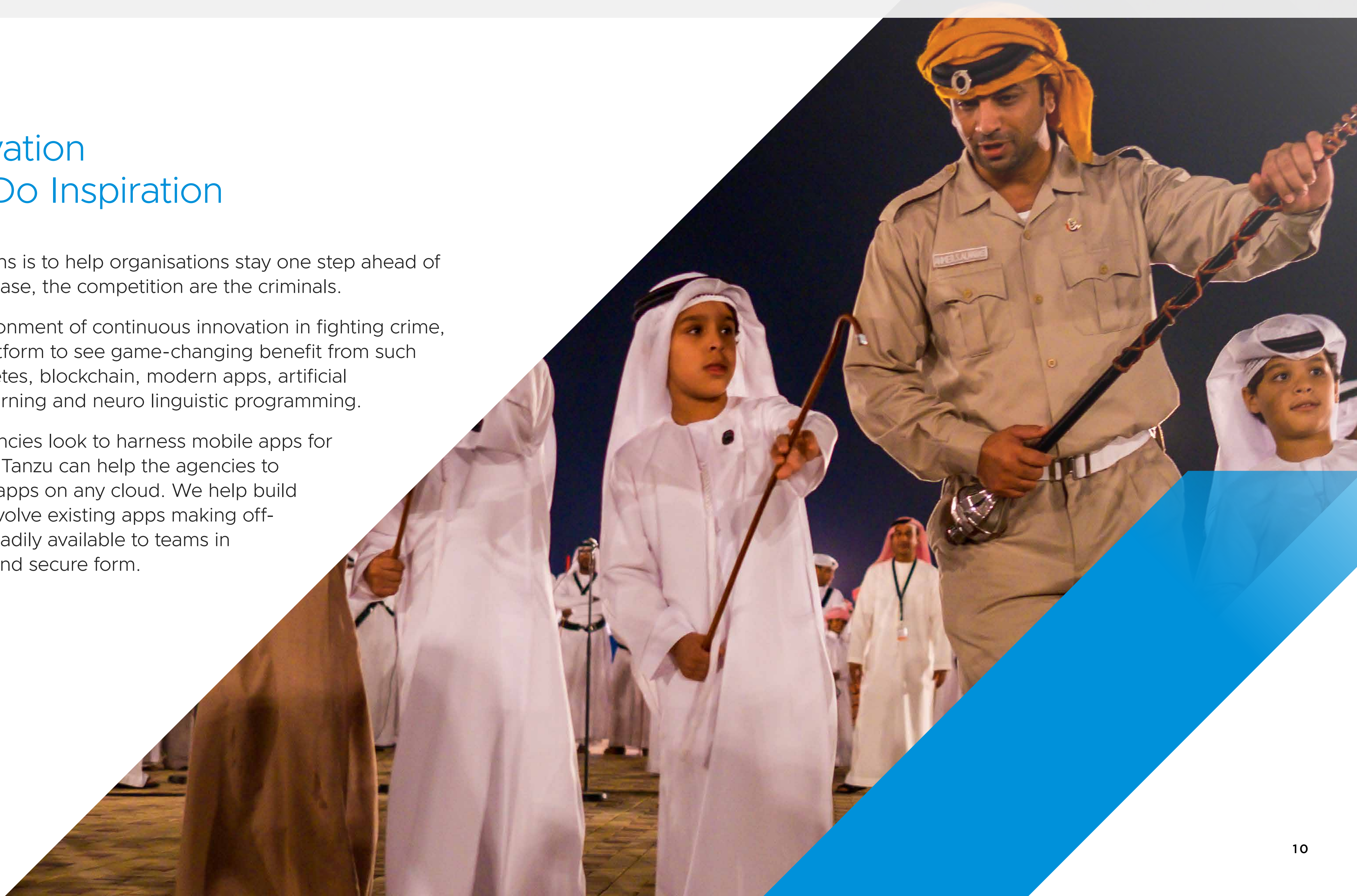


We Do Innovation So You Can Do Inspiration

One of VMware's missions is to help organisations stay one step ahead of the competition; in this case, the competition are the criminals.

VMware deliver an environment of continuous innovation in fighting crime, giving the police the platform to see game-changing benefit from such technologies as Kubernetes, blockchain, modern apps, artificial intelligence, machine learning and neuro linguistic programming.

As law enforcement agencies look to harness mobile apps for better policing, VMware Tanzu can help the agencies to build, run, and manage apps on any cloud. We help build cloud native apps and evolve existing apps making off-the-shelf components readily available to teams in a curated, customised, and secure form.



Police IT departments work is all about apps and fast development: Tanzu saves a lot of development time and better support forces in the field. VMware Labs provide the environment and **hands-on guidance** to help build cloud native applications quickly, upskilling teams on the way.

When it comes to changing the game out in the field and physically taking the battle to the criminals, VMware Pulse IoT Centre can onboard, manage, monitor and secure edge and IoT devices and enables IT and OT to have complete control of their IoT implementations from the edge to the cloud.

VMware can help law enforcement agencies onboard, manage, monitor and secure all things IoT throughout the lifecycle for efficiency, compliance, and collaboration.

Security is paramount for us and runs through everything we do. Cyber threats and attacks are a daily burden, both for the general public and for police forces. Most police forces' datacentres run on vSphere, VMware have unparalleled insight into what is happening in said datacentres and can proactively provide insights and advice.

We're also helping you win the war for top talent. VMware helps deliver better applications and platforms which create and sustain an interesting, supportive and engaging work environment.

VMware's Desktop Virtualisation solution provides agencies with a streamlined approach to delivering, protecting, and managing desktops and apps while containing costs and **ensuring end-users can work anytime, anywhere, across any device.**

VMware delivers on teleworking, operations continuity and disaster preparedness goals by ensuring high availability and access to critical resources.

MOST POLICE FORCES' DATACENTERS RUN vSphere



Contact VMware

In a constantly evolving criminal landscape, VMware can help law enforcement agencies stay ahead, through the smart use of digital technology. VMware is the logical partner to make digitisation or modernisation of policing the most efficient tool to crush crime.

To learn more about how we're empowering future-ready police forces around the world and open a discussion about how we can change the game for you, get in contact today:



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Thank You

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