



Digital Policing

Disruptive technologies enhancing
the policing experience



MAKING AN
IMPACT THAT
MATTERS
since 1845

Foreword



Andrew Morley
Partner
Public Safety & Justice Lead
Middle East
anmorley@deloitte.com

Policing globally is transforming. This is influenced by a number of factors to include the changing patterns of crime, the ever increasing expectations of the public and the need to be more efficient. Technology facilitates many of these factors, but is also recognized to be an essential part of the solution.

Our region is not exempt from this and many organizations are taking an innovative approach in the way they work and interact, both internally and externally with their customers. Digital technologies are enabling a new digital society and creating new opportunities to improve the overall experience for the public.

Many police services in the region are ahead of the game and are already exploiting world class technology to improve policing services. However, the pace at which technology is developing with new solutions being introduced on an increasingly regular basis, all organizations face a challenge in ensuring 'digital coherence' in the end to end process and experience.

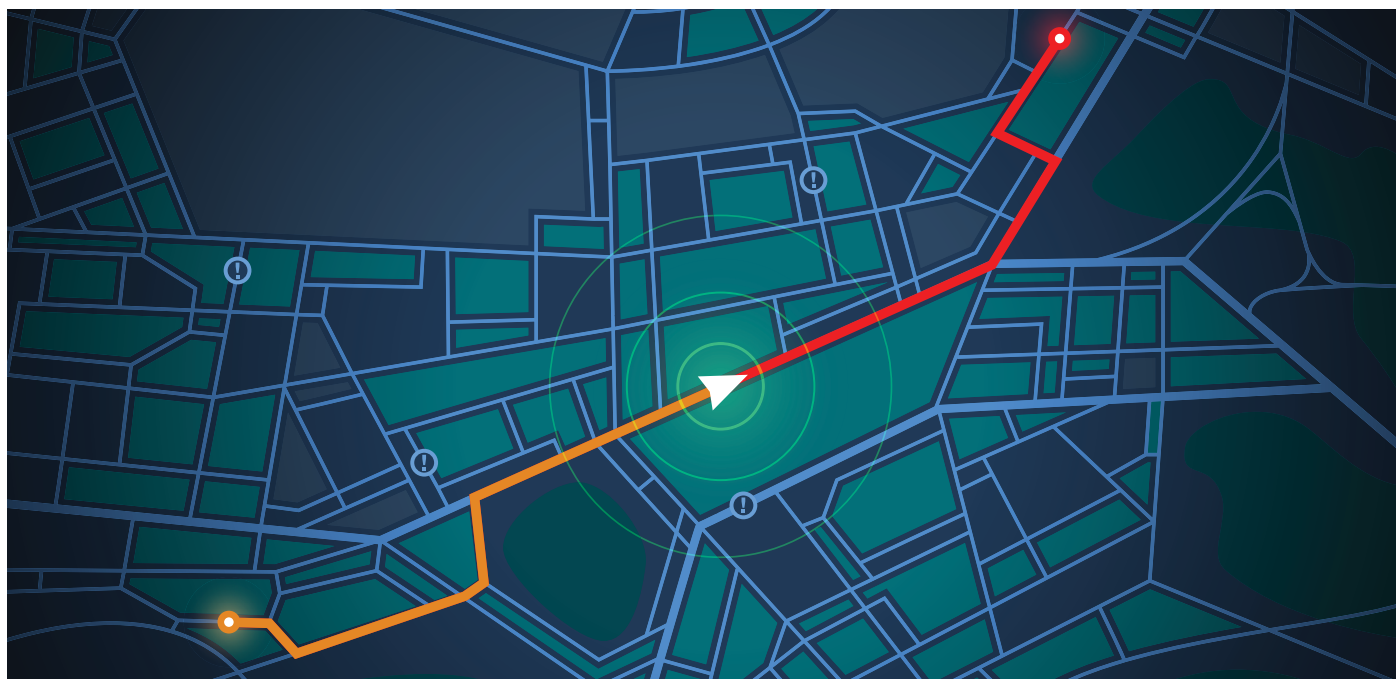
Drawing on our extensive experience in supporting organizations to digitalize, and our deep understanding of the policing sector, we bring these together to describe how a truly digital police service would support end users – our fictional Officer Ahmed and Command & Control Operative Lt Marwa – and provide insights intended to help police services realize this.

Specifically, we:

1. Identify the key challenges being faced on the frontline
2. Map how digital technologies can support tasks across the policing lifecycle
3. Identify what technology solutions can be deployed to deliver on this
4. Provide our perspective, on the basis of experience across sectors and geographies, on how policing agencies can best maximize the benefits of technology

The COVID-19 response necessitated social distancing which has forced all industries, including policing, to rely more on technology and reduce human contact with colleagues. What will follow this pandemic is expected to be an automation boom. The Middle East is being looked at as a reference point for this expected innovation. This provides an opportunity for the region's policing to develop, test and prove solutions, and ways of working, that could have global application. This paper addresses a challenge that would be recognized by many police services, making our experience here relevant to the global policing community.

Introduction



Maximizing the opportunity to enhance frontline policing enabled by digital transformation

The core benefits of a digitized police service are the increased efficiencies of being able to complete tasks out in the field, maximize visibility on the front line by reducing the necessity of returning to stations and achieving secure remote access to real-time intelligence necessary to inform decisions.

Historically, policing has benefitted from earlier technologies that required officers to be physically in a police station sat in front of a desktop computer. This not only took officers away from operational duties and being present in communities, but it also increased the risk of noncompliance, or data being lost in the transfer from notebook to data entry. Furthermore, officers risked making critical operational

decisions at the point of need without always having access to all the most current intelligence.

The role of the police and its need to partner with other agencies to keep us safe presents a particular challenge. Police agencies must meet security standards to enable interoperability with partners and the security of their data. Beyond this, however, it is vital that a Force's digital transformation is approached holistically to ensure the right technology is properly procured and fully integrated into their wider IT ecosystem in a way that improves ways of working and leads to all envisaged benefits being realised.

We explore further these frontline policing challenges on the following page.

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Frontline policing challenges

Outdated technology, processes and ways of working create an unnecessary administrative burden for the completion of frontline officer duties. Some of the key challenges have been outlined below, however these also present opportunities for improvements enabled by digital transformation.

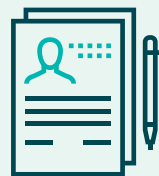
Challenges



Lengthy and rigid **training and on-boarding** processes



Officers **deployed reactively** – little opportunity to engage in the preventative activity



Manual administrative overhead required to deploy officers



Limited opportunity for the public to interact with policing digitally



Nearest and most suitable **resource not always first** to be deployed to an incident



Reports and statements often require **double entry** and **completion only possible at stations**



IT ecosystem made up of **disparate and outdated** platforms/systems



Manual unwieldy case management lifecycle

Using Digital to overcome frontline challenges

We have global experience in the successful implementation of proven digital technologies to support the transition to truly digital police services

Through four digital journeys: predictive policing; digital public engagement; mobile workforce optimization and digital investigation we step through how proven digital technologies overcome existing frontline policing challenges to improve outcomes for contemporary policing. In articulating this we have led not with the technology but the benefits it provides to both the service and the public through the eyes of police traffic officer, Officer Ahmed, and Command & Control (C&C) Operative, Lt Marwa, to show how digital capabilities support them to do their jobs.



Traffic officer Ahmad



Lt Marwa C&C Operative

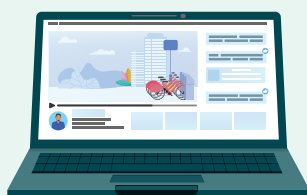
1.



Predictive policing

Ability to predict situations before they happen

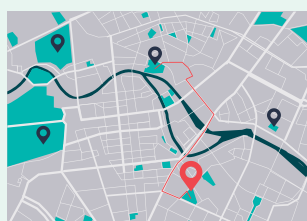
2.



Digital public engagement

Building the right ecosystem to identify incidents before they happen

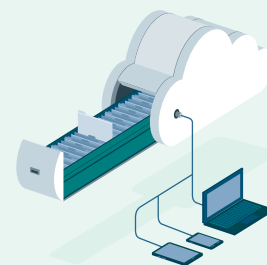
3.



Mobile workforce optimization

Allowing police officers to give more focus to their front line tasks

4.



Digital investigation

Accelerate investigation through real time and historical information

Digital policing journey

Through four digital journeys we define how applying proven digital technologies can improve outcomes of contemporary policing

1. Predictive policing

Ability to predict situations before they happen



Traffic management

Identifying traffic hotspots

Officer Ahmed joins the morning online briefing and self deploys from home. His zone is allocated based on traffic hotspots that have been identified using historical trend analysis and predictive analytics.

Proactive patrolling

Auto notifications

Whilst out on patrol in his allocated zone, Officer Ahmed receives an auto notification as he is nearby a geo-fenced location that has been tagged as a place of interest due to past incidents.

Training

On the job simulation

During a break Officer Ahmed receives an auto-reminder to complete the online major traffic incident training course. The course features a simulated road accident, which Officer Ahmed navigates through using a VR headset and is able to get hands-on experience of dealing with such situations.

2. Digital public engagement

Building the right ecosystem to identify incidents through digital public engagement platforms before witnesses call



Integration

Extracting information from multiple social media platforms used by the public

Automated alert

Through crowdsourcing/traffic authority social media coverage

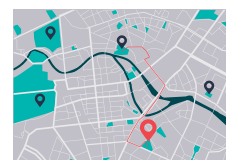
Lt Marwa is a control operative working the same shift as Officer Ahmed. The C&C center receives an auto-notification detected via their social media monitoring tool highlighting traffic congestion on a street within Zone A. The C&C center receives additional alerts for an accident near Zone A reported by witnesses using the police mobile app. Due to accident alert, Officer Ahmed is auto-notified through the smart police app by the C&C center to report to the incident's location, as he is the closest and most suitably trained officer to the scene. On arrival, his location is updated on his mobile app and the C&C center is notified that Officer Ahmed has arrived safely on the scene.

Because of the auto-notifications process, Lt Marwa is free to focus purely on managing emergency calls into the C&C center.



3. Mobile workforce optimization

Allowing police officers to give more focus to their front line tasks



Tracking congestion

Remote deployment of officers

Officer Ahmed accesses the mobile app which provides a real time view of congestion based on AI surveillance cameras in the area. He decides to report to a nearby affected area.

Navigation

Using the fastest route

Using the mobile app, Officer Ahmed selects navigation feature to guide him to the congested area. As the smartphone is connected to the police car, the route appears on the AR heads-up display to guide him.

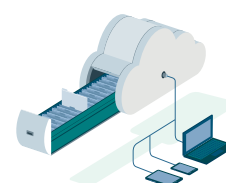
Dynamic provisioning

Of appropriate officers in the area

On arrival, Officer Ahmed determines he needs additional support. He requests this through the mobile app which notifies the nearest suitable available officer. Officer Khalid accepts the notification and uses the navigation feature in the app and in-vehicle to direct him to the site using the fastest route.

4. Digital investigation

Accelerate investigation through real time and historical information



Digital file created

With decision support to classify

Send digital case file

Investigation/Forensics/Traffic

After finishing at the incident, Officer Ahmed creates a new digital case and links the initial observation report to it via the digital app. The case is automatically tagged, classified, and assigned to the relevant department accordingly based on the analysis of the observation report.

Electronic witness statement

ID verification sent to custody officer

Pattern recognition

For investigation and forensics

The case file is continuously updated with required data including capturing digital witness statements and verifying their IDs by scanning the ID on the app, and adding in any other information that is discovered.

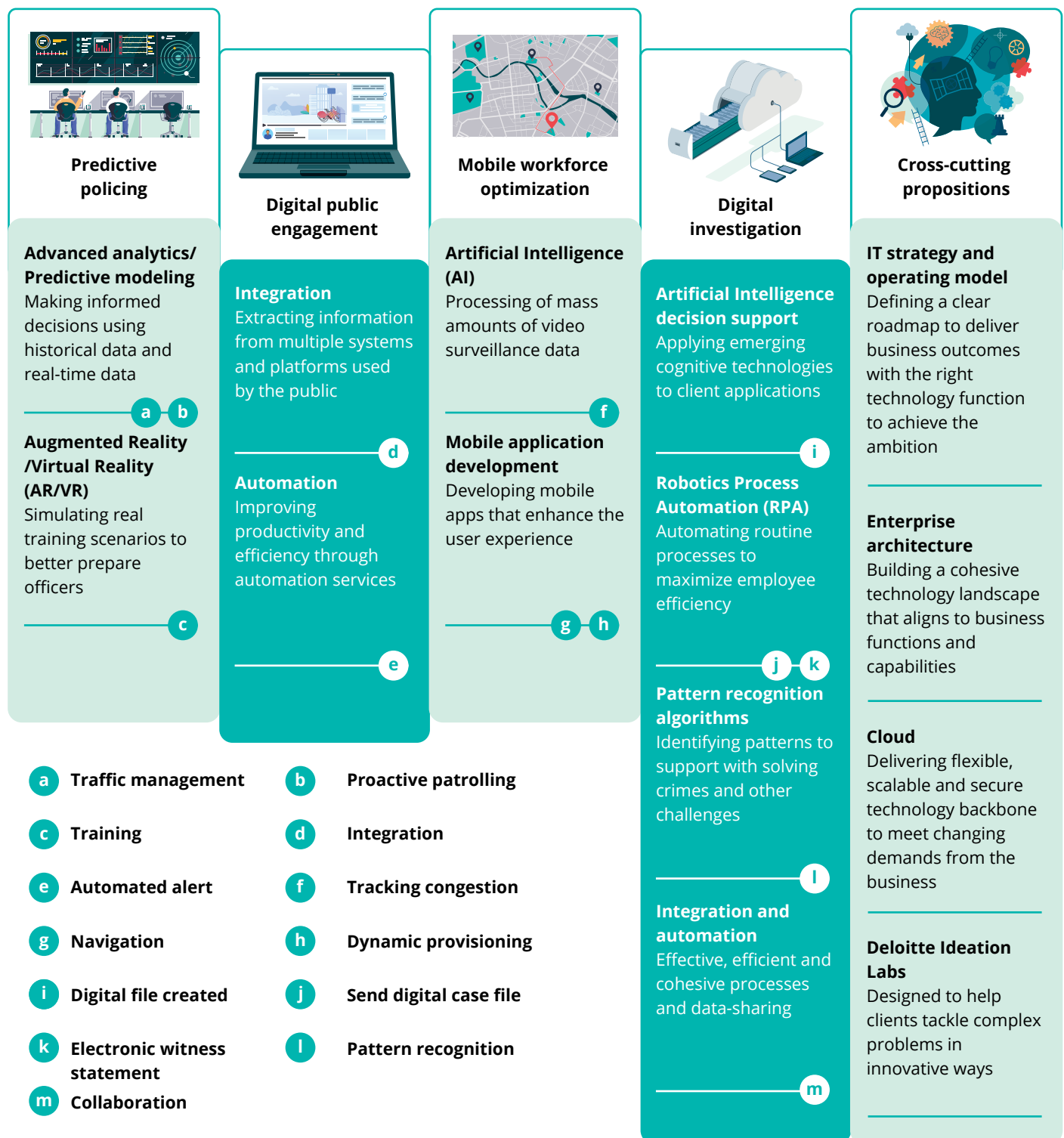
Collaboration

On the case with prosecution and other entities

Once the case file is complete, Officer Ahmed shares it with the Prosecution Service to take it forward and other organizations such as Road/Transport agencies to support with root cause analysis and resolution.

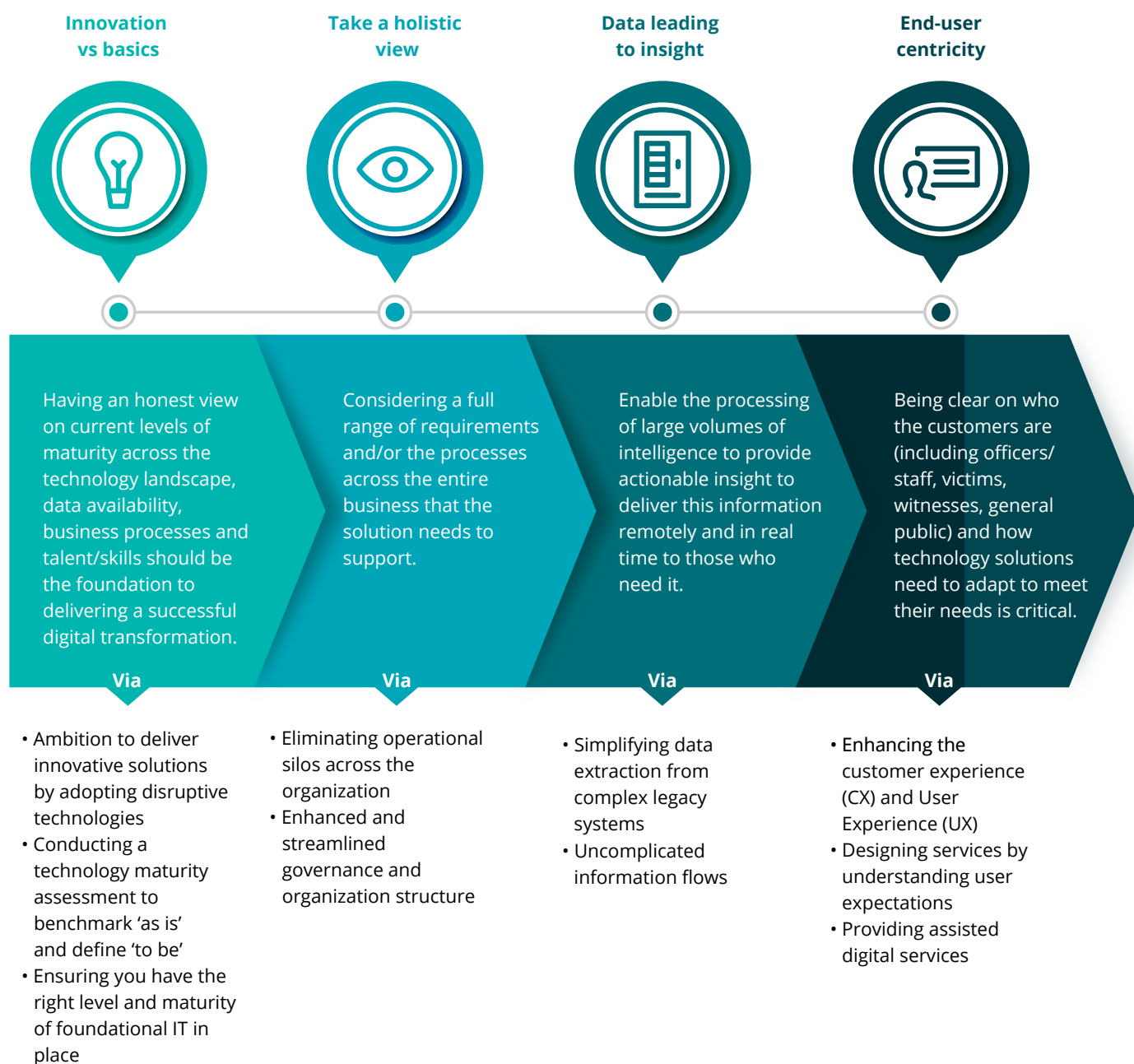
Digital enablers

We have outlined a set of proven propositions that can help police forces to deliver the scenarios laid out in the digital policing journey.



Critical success factors

Simply procuring new technology is not enough. It is vital that a Force's digital transformation is approached holistically to ensure the right technology is properly procured and fully integrated into their wider IT ecosystem in a way that improves ways of working and all envisaged benefits are realized



What are the expected benefits?

There are quantifiable and intangible benefits of leveraging digital technologies to enhance front-line policing operations, a few of which have been outlined below.

Benefits



Greater safety for officers and staff

Enhancing the safety of officers and staff by ensuring they have timely access to the required intelligence at the point of need.



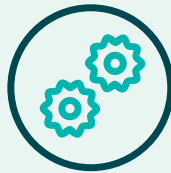
Enhanced experience for victims

Deploying digital technologies will improve the victim journey by enhancing the incident to resolution lifecycle.



Evidence-based policing driving better outcomes

Digital technologies will enable real-time decision making and targeted planning leveraging prescriptive and predictive analytics.



Increased productivity & visibility

Enable officers to focus on front line duties and be visible in communities and minimizing the administrative and operational overheads.

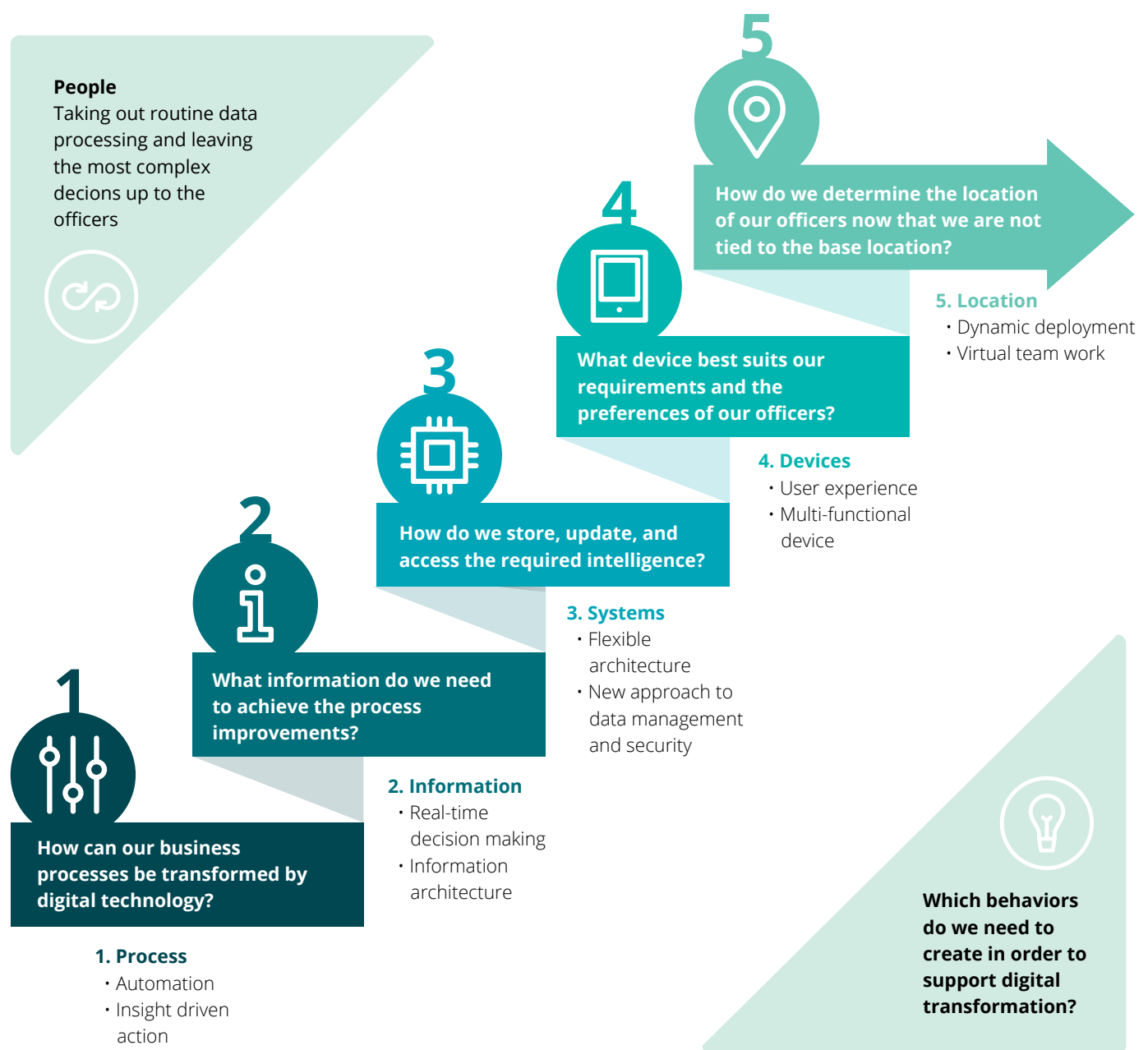


Improved data quality in force systems

Through digital collection and processing of data, this will improve data quality, accuracy and availability for further analyzing and predicting crime.

Beginning your transformation journey

Five steps to transforming the policing experience by introducing digital technology



Appendix – Case study 1



Case study 1: Digital transformation to improve citizen experience **Engaging citizens in the field of investigation**

What if citizens were able to have their own personal police officer at their disposal?

Meet the virtual police officer in your pocket!

Social and technological factors are driving policing's desire to become more 'citizen-centric'. In the Netherlands, we co-created 'Virtual Agent Wout' with the Dutch Police. Wout, a Dutch nickname for a police officer, is a solution which enables citizens to be engaged in the field of investigation

by chatting with an AI-driven robot to report crimes faster and easier.

Members of the public can easily report non-emergency crimes through chat and if applicable Wout also provides them directly with advice. Wout can be reached through all key social media platforms (Facebook, Whatsapp, Snapchat, etc.) and is directly connected to the Police Command & Control Centre.

Once reported members of the public are provided with a link to an online file in which they can track progress, see all information on their case and engage with the Police. Wout even supports self investigation.

As a user you get tips and tricks and can work directly together with the Police. If you have any new information you can directly upload it in your own file. Need extra help? Users are able to share their file with their friends and family on social media to get extra support.

Members of the public can easily report non-emergency crimes through chat and if applicable 'Wout' also provides them directly with advice.

Appendix – Case study 2



Case study 2: Digital transformation to improve officer mobility

Equipping front line officers to be truly mobile

What if officers had the technology to complete all their duties outside of police stations?

As more police officers are required on the frontline to deal with the daily demands of crime, there is an ever evolving need to create mobility solutions that enable officers to spend more time out of police stations with local communities.

By listening closely to the needs of officers and staff we were able to work together to imagine how mobile technology could drive policing for the future. This direct engagement with forces inspired our commitment to design products “for the frontline, by the frontline”.

A national online suite of over 20 products has been launched. Forces played a key role in shaping, testing and validating each product along the way. One of the key products is an online maturity assessment to help forces understand where they are on their digital mobility journey. Results generated signpost forces to practical tools and guidance to support the acceleration of frontline digital maturity at their force level.

Products range from guidebooks summarising service design and user experience principles that can be applied locally, to an innovative Proof of Concept that demonstrated the feasibility of using speech to text and spatial analysis supported by integration services on a mobile device. We also developed a set of national guidelines to help forces plan actions and form opinions when making decisions about purchasing emerging technologies used in policing, as well as a benefits framework that acts as a tool for forces to track the impact of mobility initiatives over time.

Contacts



Andrew Morley
Partner
Public Safety & Justice Lead
Middle East
anmorley@deloitte.com



Arzoo Ahmed
Director
Policing Technology Lead
Middle East
arzooahmed@deloitte.com

Contributors



Kathryn Buckle
Senior Manager
Digital Policing SME
UK
kabuckle@deloitte.co.uk



Danielle Riachi
Senior Consultant
Middle East
driachi@deloitte.com



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