Adopting a cohesive enterprise-wide approach to digital evidence

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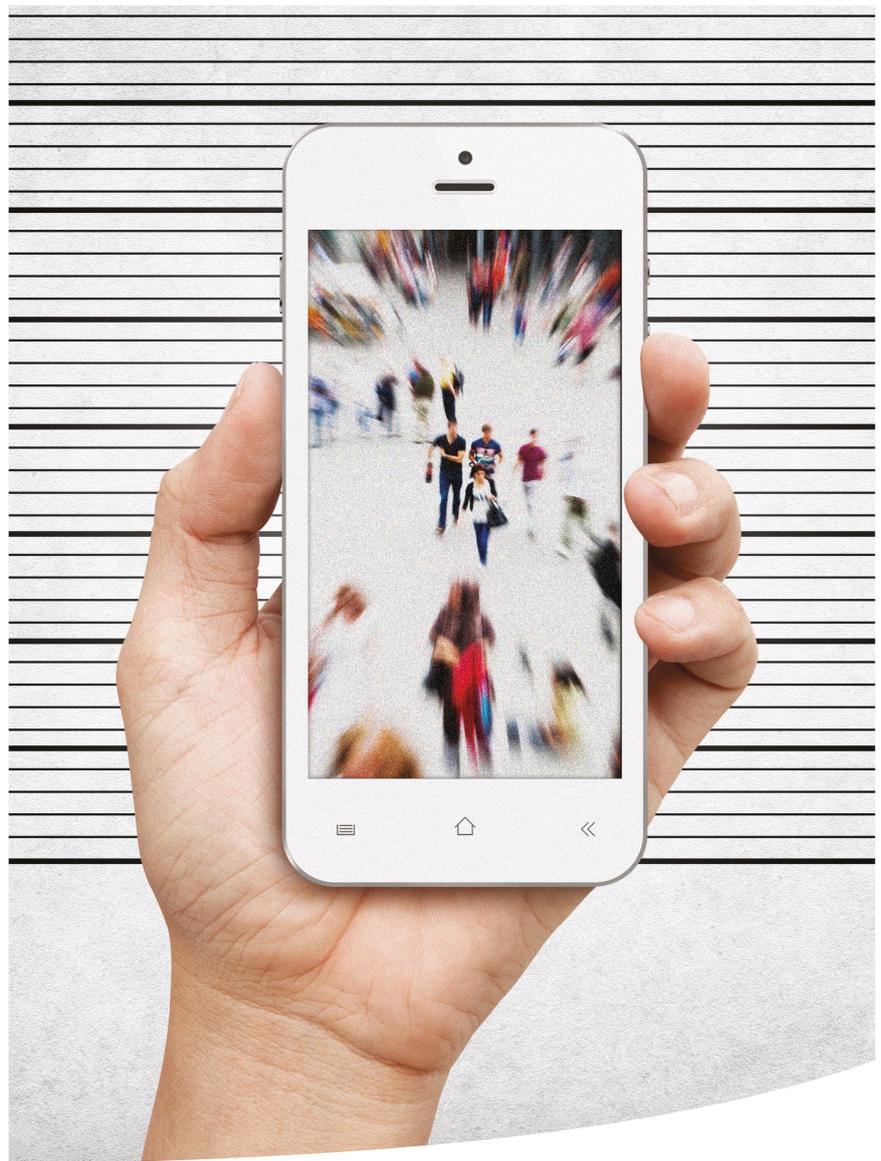
How best to manage the exponential growth of digital evidence is one of the biggest single problems facing UK policing: it must be addressed urgently and at a strategic, enterprise-wide level. Only with this strategic perspective will the benefits to be gained from this step change to the digital policing environment be fully realised.

Digital evidence usage within the Criminal Justice (CJ) system is now an inescapable and growing factor of modern policing. As an example, estimates suggest that the number of smartphones in use in the UK is set to exceed 40 million by 2016. With each smartphone equipped with a camera, a member of the public now has the capability to generate the first instance of visual digital evidence following a crime or incident. In this landscape the public/police digital evidence interface will become increasingly pre-eminent, not just with citizens remotely uploading captured evidence to forces, but vice versa with the dissemination of significant evidential events by the police to the public.

Additionally, evidence emanating from CCTV footage, digital interview recordings, in-car cameras, and body worn video all contribute to the digital evidence mix. Looking at just one of these aspects gives us a feel for the scale of the challenge. Personal issue body worn video cameras will be deployed routinely at incidents for visual evidence capture. On the one hand this will drive both positive policing outcomes with fewer police complaints and an increase in brought-to-justice figures. On the other hand it will result in a huge increase in the volume of visual data made available to certain types of prosecution cases by officers. This data will be an integral part of the overall digital evidence management strategy and must be carefully managed throughout the CJ process.

It's unsurprising that the proliferation of digital evidence capable devices is already causing problems for the capture of digital forensics from them and their examination within reasonable timescales at local police stations. Yet what is a problem for some can be a significant opportunity for others. This is especially so against a backdrop of austerity where, if effectively and strategically managed, digital evidence capture can play a critical role in meeting operational policing targets.

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There is a renewed impetus within the police service for re-thinking digital strategies and using digital capabilities in response to reducing budgets, lower head count and increased demands in terms of volume and operational complexity. Forces also need to be cognisant of the digital divide in criminality, whereby a reduction in the volume of acquisitive crime is offset by the threats faced as a result of cyber crime and cyber fraud. This has the capability to swamp the current police resources ranged against it, including the technical investigative capabilities.

The Google effect

Of course, it isn't always necessary to re-invent the wheel. One of the biggest commercial digital success stories is search engine Google. Taking this into a police context has significant ramifications for cost, time and detection rates. The 'Googlisation' of digital evidence would enable officers to simply type in a suspect's name and let a POLE (People Object Location Event) data model search engine trawl through previously silo'd digital evidence workstreams and often duplicated databases. It's a technology-led approach that would support officer self-service digital case management creation. Such digital evidence management systems and search engine tools can be deployed on a single force basis or collaboratively in a multi-force environment to create a single holistic operational picture.

Any digital evidence solution procured in the future will have to deliver a platform that draws the various data sources together, making it available to the widest possible user community. This is best achieved through the creation of a digital evidence management approach that brings point solutions together, under a Service Orientated Architecture (SOA) wrapper. In embracing this approach forces will ensure their solutions are fit-for-purpose, maximise efficiency in the sharing of information and offer demonstrable value for money in light of current budget constraints.

We are already seeing this value being demonstrated through the use of a range of digital evidence tools. For example, Sopra Steria's mobile solution for Cleveland Police is enabling officers on patrol to submit crime reports with associated photographs, reducing the amount of manual re-keying. Linked to the electronic case file it is helping to improve the Force's ability to bring offenders to justice. Giving those same officers remote access to additional information and wider intelligence relating to an incident held within their central systems enables them to spend more time away from the police station, creating a more visible presence in the community.

On another front, Digital Interview Recording (DIR) solutions, such as the managed service provided by Sopra Steria, are transforming the way in which interviews are being processed, stored and made accessible to officers everywhere.

Answering key questions

So we can see that operationally a force might have invested in a mobile solution for its officers on the beat. It might be using a DIR solution for multiple fixed interview rooms and portable recording kits for interviews in other locations. A kiosk located in the custody suite could be giving officers the ability to securely, quickly and accurately gather data from mobile phones and other devices without the need to send the device away for specialist forensic analysis.

There are still key questions to be asked, however. How much of this digital information is duplicated across the different channels? How easy is it to make sense of it all to deliver better outcomes? How much faster would the investigation proceed if all the evidence was accessible by everyone, wherever they needed it via integrated access to the different data sources? Forces looking to attain maximum operational value from their digital evidence investments would do well to address and resolve these questions at an enterprise-wide level.

Sopra Steria believes that only by taking this enterprise-wide approach to the whole digital evidence landscape will it be possible to transform digital information into positive crime prevention and investigative outcomes. To fully exploit the huge volumes of digital information that is routinely available, forces must bring together all the different strands of digital evidence into a virtual single body of shared information; one that supports the holistic nature of intelligence gathering and collation. This enterprise-wide approach to information management will lead to a step-change in how evidence is handled and the value derived from it.

We have already observed this step change where we have integrated existing information and evidence silos in a centralised intelligence architecture. This has reduced the provision time for important operational management information from several days or weeks to "same day" delivery of real-time analytics. Crime prevention initiatives can also be supported using predictive analytics based on a single, cohesive body of digital intelligence.

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A winning strategy

There are clearly some big wins for those forces getting their digital evidence management strategies correct. Austerity is driving a collaborative agenda that increases the need for effective information sharing across force boundaries. Evidential data volumes drawn from a myriad of sources will continue to grow rapidly whilst the ability of the police service to harness and exploit this information is central to the successful delivery of operational policing in the future.

Enterprise-wide digitisation and capability programmes can deliver justice with shorter investigations, more guilty pleas, increased brought-to-justice figures, enhanced officer professionalism (in reducing complaints) and ultimately, cashable savings for the forces and the rest of the Criminal Justice system.

Sopra Steria's experience proves that this can be achieved with a joined up information management platform, and a secure, robust and compliant infrastructure on which the evidence is stored. This should be coupled with digital information recording services, records management and digital evidence acquisition solutions for a holistic, joined up digital evidence landscape. With the rapid advances in digital technologies, these solutions must provide both integration with legacy systems and assurance of future integration support for new technology as it emerges.

About Sopra Steria

Sopra Steria, European leader in digital transformation, provides one of the most comprehensive portfolios of end to end service offerings in the market: Consulting, Systems Integration, Software Development and Business Process Services. Sopra Steria is trusted by leading private and public organisations to deliver successful transformation programmes that address their most complex and critical business challenges. Combining high quality and performance services, added-value and innovation, Sopra Steria enables its clients to make the best use of information technology.

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