Developing a National Digital Forensics Strategy for the Police Service

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- The police service is having to acquire, process and analyse ever increasing amounts of data in the course of routine investigations. The advent of 5G and the spread of Internet of Things devices will only increase this demand.

- There are not enough staff or resources to meet current demand. There are backlogs of 3-6 months on average, unless evidence for a case is urgent. There can be waits of up to 1 year for some specialist services.

- Estimates of the numbers of staff required to reduce these backlogs range from a third to a doubling of the current numbers.

- A reoccurring problem is DF examiners leaving to work in the private sector for higher salaries.

- New and upgraded equipment is required, so that examiners can multitask and work between stations. A work station can often be out-of-use for hours/days when running a programme.

- A lack of end-user understanding of DF results in unreasonable requests and causes delays.

- Numerous reports have highlighted the need for investment in practitioner training.

- There is a need for more training of police investigators and prosecutors so that there is greater understanding of what is achievable, in what format etc.

- One suggested solution is more frontline kiosks for low-level examination.

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- A fragmented and unstable market place.

- A 43 force system that prevents policing developing a strategic ask of providers.

- A lack of universally adopted quality standards. While all forces are striving for ISO accreditation, they are using different tools, processes and there is little sharing between forces. Some debate as to whether quality standards can keep pace with the pace of technological change in this area.

- The diversity of data is a major and increasing challenge, given the range of devices, operating systems, data types and file formats.

- Use of anti–forensic tools such as encryption and steganography, as well as artefact wiping and attacks against forensic tools. Encryption is a major technical challenge, denying access and prolonging investigations and it is likely to become more widespread. There is a need for collection and maintenance of exhaustive anti-forensic data sets and greater capability to deal with anti forensics.

- Cloud-based storage poses two challenges: 1) accessing data on the cloud poses legal and jurisdictional problems as well as making it harder for investigators to protect evidence 2) using the cloud to store DF systems and data could bring huge benefits but there are security challenges.

- Concerns about privacy are growing and raise the issue of what degree of intrusion is lawful, proportionate and consistent with policing by consent.

- Concerns about loss of privacy may prevent victims coming forward.

- There is a lack of regulation in fast developing areas such as facial recognition.

- There are questions as to whether the legal professions have sufficient understanding of DF to ensure that the evidence is properly understood.

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- Investment on DF should lead to more rapid examination and assessment of digital evidence. Better quality evidence will be provided to courts resulting in higher conviction rates. In turn, this will lead to increased trust in the ability of police to solve crime and improved confidence in the criminal justice system.

- Automation/office review technology would save about a third of examiners' time by not carrying out manual processes converting data into common formats.

- Cloud-based storage for police use would enable collaboration between forces. It would also allow more data to be stored as well as faster and more efficient transfers.

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- Increased investment in technology and training as part of the next Spending Review

- Frontline officers should be able to do more examinations themselves with the right training and kit

- Re-establish a national Forensics Science Service to undertake national procurement, horizon scanning/R&D, ensure quality standards are met and provide for concentration of specialist expertise

Find out more

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