

Transforming Forensics: Joint Forensic and Biometric Service

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Appendix A JFBS proposal

1. INTRODUCTION/PURPOSE

1.1 The purpose of this paper is to present Chief Constables Council with a proposal in respect to a Joint Forensic and Biometric Service (JFBS). Chief Constables are asked to:

- i. Note the work undertaken to date
- ii. Comment on the proposal
- iii. Support a bid to the Police Reform and Transformation Fund (PRTF) to develop further work

2. BACKGROUND AND WORK TO DATE

2.1 In July 2015 Chief Constables agreed that not all forces required their own specialist capabilities, however should be able to access them when required. It was further agreed that this would be managed through wider transformation project, which fell under the principles of the 2020 Policing principles, in particular:

By 2020 Specialist Capabilities¹ will be standardised and aggregated to maintain capability and resilience across policing. This will ensure greater agility when fighting crime.

¹ The Advisory Group on the National Debate on Policing in Austerity has defined specialist capabilities as those relating to counter terrorism, organised crime, cybercrime, major crime, intelligence, public order and armed policing.
National Police Chiefs' Council

The Forensic Strategy which was published in March 2016², highlights a national approach to Forensic Science delivery directing that by the end of this parliament it will explore the concept of moving the current fragmented provision to a Joint Forensic and Biometric Service to achieve economies of scale, increased capability and resilience.

Transforming Forensics and exploring the concept of a JFBS falls under the Specialist Capabilities work stream and is led by the NPCC Forensic Portfolio.

A group of senior forensic practitioners in the Police, Home Office and BAe Science have been working on delivering a proposal which outlines the principles that JFBS would follow, and the perceived benefits it can deliver.

3. FOCUS GROUPS AND ENGAGEMENT

3.1 Engagement has been ongoing with the forensic community. A small sample of Chief Constables and PCCs were spoken to by BAe Science and Scientific Support Managers were engaged through the annual conference. A number of stakeholder events were also run throughout the country and saw a number of Chief Officers and other interested parties attend.

4. NEXT STEPS

4.1 The proposal for JFBS can be found at Appendix A. If supported, the APCC will be approached and an application submitted to the PRTF.

5 Decisions Required

- i. Note the work undertaken to date
- ii. Comment on the proposal
- iii. Support a bid to the Police Reform and Transformation Fund to develop further work

Name Chief Constable Debbie Simpson QPM

Rank, Constabulary Dorset Police – NPCC Forensic Portfolio

APPENDIX A: Transforming Police Forensics and Biometrics

Executive Summary:

This paper seeks chiefs' support for a joint bid into the Police Transformation Fund (PTF) to support detailed design work and trials around a possible Joint Forensics and Biometrics Service, building on the work the NPCC Forensic Portfolio lead has been developing with forces and the Home Office. The intention is to come back to chiefs and PCCs by the end of the year with a clear proposition and options for the way forward. The work will be taken forward under the Forensics work stream but closely aligned with the wider Strategic Capabilities agenda.

Background

Through transformation, we intend to explore ways to reshape police forensics in a way that improves and sustains local service delivery, providing local teams with earlier access to the latest technology to deliver rapid and robust forensic services which meet the current and future needs of the public.

All 43 forces have similar objectives to protect the public, prevent harm, identify and protect the most vulnerable and make our communities safer. Forensic science continues to provide vital opportunities to prevent crime and deliver safeguarding in our communities. It has the potential to make an even greater contribution to protecting the most vulnerable through exploiting digital evidence and utilising new technology such as facial recognition and matching capabilities, and radically speed up clear ups as crime scene technology improves.

At the same time, forces face major challenges in meeting the requirement to accredit their in house services, with some 60 different legal entities seeking accreditation on digital forensics by December 2017, for example. All the evidence suggests that this will put a major strain on management time as well as imposing a significant cost burden.

At the heart of any new approach to forensic services is the ability to deliver forensic outputs straight to the point of need; delivering faster results, informing investigations in real-time and resulting in swifter criminal justice outcomes. This will require a major transformation in the way forensic services are delivered. In order to realise the full benefits of both existing and evolving technology, police forces need a cohesive approach alongside the mechanisms to access these developments both locally and nationally. The proposed project will scope options for this.

Whatever happens, the services will need to be underpinned by international standards, ethics, scrutiny and a programme of continuous improvements to keep pace with change, providing greater accountability, transparency and public confidence.

Rationale

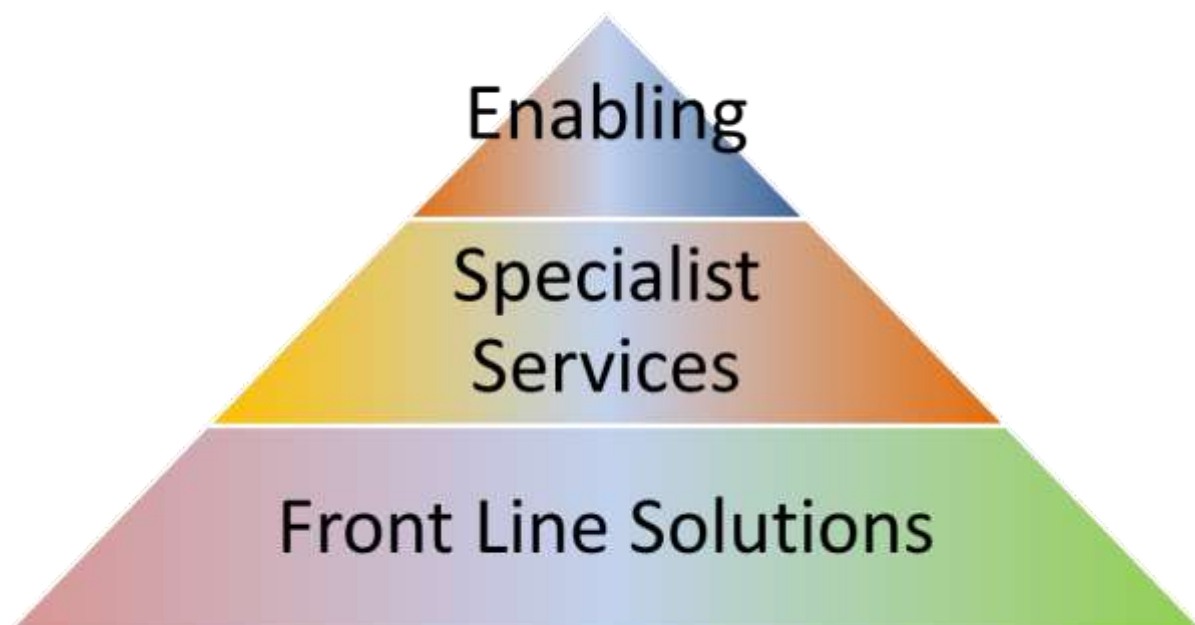
Changing demand

Police leaders are aware of the well-rehearsed evidence base that crime has changed rapidly over the last twenty years. While traditional high volume crimes like burglary and street violence have more than halved, previously 'hidden' crimes like child sexual abuse,

rape and domestic violence have all become more visible, if not more frequent. Forensic services have not kept pace with these changes (State of Policing, HMIC 2016).

As highlighted in the Forensic Strategy, there has been a decline in the demand for traditional forensic science such as DNA and fingerprints. Demand for digital forensics has grown in parallel with the increased use of digital devices over the past 20 years and this trend is expected to continue. Crimes with a digital element are on the rise, crimes are being committed in new ways that leave a digital rather than physical trail. More and more crimes have the potential for digital forensic intervention, yet around 80% of digital forensic examinations are used for crimes relating to CSE, which is a real priority for law enforcement as a whole but represents just 1% of crime across the country. This means there is massive potential to unlock capability and capacity to utilise digital forensics for all crimes and respond to the changing crime threat. However, significant investment in technologies, capabilities, business process redesign and techniques, together with a reallocation of resources is likely to be needed to meet the projected increase in demand for digital forensics.

The concept of a response which is centrally enabled yet allows for local delivery in line with local priorities has been attractive to forensic leaders attending a series of national engagement events. High end specialist capabilities should have the flexibility and agility to respond to national demand, however do not need to be replicated in every force. The following digram demonstrates one way which JFBS could enable national capability, while not directing a model of delivery or how local services are managed.



Existing approaches

Many forces have made significant savings through collaborative approaches to delivering forensic services or through process improvement and streamlining services. However whilst both approaches together deliver substantial improvements to both quality and service levels as well as cost savings and reinvestment opportunities, current

experience suggests this alone will not address the significant challenges they face to address emerging demands and meet public expectations. There is thus an opportunity for transformative change of greater breadth and depth than can be delivered by one force or a region working alone.

Traditionally, each force, group or collaboration has sought to address similar challenges and implement their own solutions, leading to duplication of cost and effort, for example in introducing similar operating models and IT systems. A lack of coordination especially around innovation has led to an inability to keep up with changing demand and inconsistencies in the level of service provided across the country, for example:

6. Rapid DNA is being piloted in 6 different organisations across policing concurrently
7. Many forces are looking to procure similar kiosk technology for digital forensics
8. Turnaround times for fingerprint enhancement laboratories vary between 1 and 60 days with the average being 16 days
9. Over 60 legal entities are seeking accreditation for digital forensics by 2017
10. There are over 200 digital forensic tools and applications
11. There are over 500 role profiles for forensic staff

Opportunities in technology

The world of forensics and biometrics is facing a period of major change, with rapid advances in areas like biometrics, digital forensics and scene of crime technologies. Improved fingerprint and DNA recognition, rapid advances in facial recognition and the development of technology for crime scenes hold out the promise of major breakthroughs in future business processes.

The current national forensics technology landscape is broad and varied, with a multitude of different forensics tools and case management capabilities (and different versions of the same tools) fulfilling similar needs in different forces across the nation. This broad range of solutions is particularly evident within the context of digital forensics. As could reasonably be expected in a fastmoving, evolving area, there is a great degree of variety across forces in terms of the capabilities offered and toolsets used by different forces for digital forensics. Within traditional forensics, the landscape is more mature, and there is less variety in toolsets and case management systems used; even then, it is understood that versions and configuration of systems in use are varied even if the same core systems are used by multiple forces.

This inevitably results in inconsistency and limited interoperability between forces, high implementation and running costs, limited ability to keep pace with advances in fast moving areas and to invest in technology to support business change. These challenges drive up costs, reduce flexibility and impinge upon the ability to deliver high-quality capabilities consistently across the country.

Skills

Traces are no longer simply physical marks and exhibits are no longer just physical objects and so the skills required for forensic analysis are broadening. New roles are needed that require highly skilled, talented professionals to ensure forensic science is able to tackle modern day crimes which include digital evidence extraction, preservation and analysis. The growth in cyber crime demands we build on the current capabilities available at the scene and invest in digital forensic specialists to support the more technically challenging digital forensic requests. Competition for this highly specialist skill set is rife, with the private sector also seeking to attract the same skills, which has led to difficulties in recruitment and retention.

The traditional driver and attraction for skilled professionals to join the police has been community spirit and the opportunity to serve a local community.

As crime becomes increasingly borderless, along with a greater need to collaborate regionally, nationally and internationally this traditional driver becomes eroded. This, however, provides an opportunity for a new culture to be built, one based on delivering excellence across borders and working with partners in industry, academia, other law enforcement agencies and the wider CJS. This will ensure police forensics has a professional and flexible workforce with the right skills to keep up with future demand and emerging threats.

Benefits

As the section above explains, this proposal is aligned with all four Transformation Fund areas as per the Home Secretary's letter of 8 June. It has been developed in line with the 2020 policing principles, building on the opportunities offered by the Home Office Biometrics Programme, the approach set out in the Forensic Strategy and enabled by the Strategic Capabilities programme. We have an opportunity to transform police forensics in order to:

- ✓ Put victims and safeguarding at the heart of forensic services
- ✓ Intervene early to enable more effective investigations, prevent crime and protect our communities
- ✓ Manage future demand and emerging threats
- ✓ Improve victim experience

Real-time forensics, delivered locally and digitally, has the potential to be at the heart of a new approach – often described as the “golden hour” where fast forensic capture and analysis can yield information and intelligence. Moving forensic and biometric capabilities closer to the point of need will reduce the time it takes to identify criminals and eliminate the innocent, ensuring that those responsible for our protection continue to have the capabilities they need to investigate crime, utilising new technologies and increasing value for money.

Throughout the criminal justice system efficiencies will be realised allowing for reinvestment. The key benefits identified are:

- Enhanced digital forensics capabilities – through greater buying power, commissioning of R&D, shared tools and techniques, including easier sharing of case information and organisational learning.
- Increased responsiveness – for example, through the dynamic tasking of routine and specialist scene work.
- Improved speed (of output) – through increased capability to deliver forensics ‘at the point of need’, leading to more immediate results, both at scene and throughout the forensics supply chain, and resulting in ‘faster justice’.
- Enhanced flexibility to meet varying/complex demands – by potentially sharing resources operating to a common set of processes and standards.
- Reduced cost and opportunities for reinvestment – through greater ability to focus on solutions, plus buying power, optimised sourcing and delivery of forensic/biometric services, increased utilisation of (shared) specialist resources and equipment
- Greater adaptability / future-proofing – arising from common standards and methods, which will facilitate adoption of new technologies and ways of working, both proactively and in response to external changes.
- Better access to new technology – by driving the market and R&D activity through greater buying power and more coherent requirements, plus greater utilisation of expensive/specialist resources thereby allowing more rapid turnover/replacement with the latest solutions.
- Maintain and improve quality – streamlined accreditation processes, standardisation and sharing best practice

- Increased effectiveness – through an enhanced intelligence capability to review cases across all forces and other agencies, driving and prioritising innovation to deliver the tools police need now.
- Improved ability to manage complex and cross-border cases - through adoption of common standards and ways of working, and improvements in data and intelligence sharing capabilities
- Improved ability to attract, retain and develop high quality staff - by providing clearer career paths and opportunities for diversification.
- Greater integration with the wider CJS - enabling savings and supporting performance improvement through faster conclusion of investigations, more complete and consistent information, and ensuring robust and reliable evidence .

Next steps

We are proposing at this stage funding for 2016-17 only, in order to scope out a proposition for chiefs and PCCs to consider. Should there be appetite to pursue one of the options, this is likely to be a multi year change programme. At this stage, we are proposing investment mainly in client side support to help us explore how transformation is best achieved and over what timescales. Options will be developed that consider opportunities for reinvesting efficiencies to ensure that transformation is delivered sustainably, in line with current and future funding envelopes. A project team will be established to develop options for (a totally) integrated (service) delivery from crime scene to court, recognising that crime scene services need to be responsive to local demands and be flexible and agile to respond to changing crime, future demand and emerging priorities.

The project team will gather a robust and consistent evidence base to scope options and produce a detailed outline business case to transform police forensics.

The project team will establish and oversee a proof of concept demonstration site to test the implementation of technologies likely to deliver quick wins, such as device and app-based at-scene fingerprint technologies, alongside changes to business process.

A demonstration site would ensure continued focus on transformation, providing opportunities for the police service to assess the benefits. This would likely be a scalable trial site, running in real time and developing in size over time. This would provide the evidence base for what works and through evaluation provide assessment and verification of the benefits that will be achieved through transformation.

An integral part of the demonstration site responsibility will be to run a programme of stakeholder events for CCs, PCCs, police forensic personnel and other interested agencies e.g. Border Force, HMRC, DWP, MoJ and Home Office agencies.

We estimate a funding requirement of £3.5m which would include equipment, staffing, consumables, consultation with police, partners and wider interested parties, domestic and international research to develop an evidence base and to enable demonstration activity.

Research and Development in police forensics has been inhibited by the fragmentation of the delivery system. Looking ahead we will want to ensure that UK forensics and biometrics requirements are:

- well understood by industry, attracting investment and generating innovation
- networked for research
- possess horizon scanning capability
- identify suitable research partners and collaborations that will benefit the sector □ able to leverage the power of procurement of standardised equipment.

We will assess how best to establish arrangements that will deliver the above, building on existing approaches where possible to allow for a strategic assessment of future delivery options for research and development.

