



**AUTHOR: Chris Allen & Rondalyn Northam**

**SPONSOR: DCC Jon Stratford**

**DECISION NUMBER: D07-2019**

**SUBMITTED TO: Martin Surl, Police & Crime Commissioner for Gloucestershire**

**SUBJECT: Remote Download, Management and Analysis of Mobile Devices**

**EXECUTIVE SUMMARY:**

Mobile Device Data has become a vital component of today's criminal investigations, with the volume and breadth of data requiring download and analysis growing year on year.

The current pressing difficulties in resourcing the capture, analysis and management of the digital evidence pose substantial risks to the Constabulary's ability to investigate crime, serve the public and meet its CPIA digital evidence disclosure legal obligations.

Funding is sought to enable the Constabulary to purchase additional Mobile Device UFED Kiosks and analytical licences at a cost of:-

- Year one capital cost - £141,247
- Ongoing annual revenue cost - £23,095

**RECOMMENDATION:**

It is recommended that:-

1. Funding of £141,247 is provided to allow the purchase of UFED kiosks
2. Provision is made for ongoing annual revenue costs of £23,095

**OUTCOME/APPROVAL BY:**

Signature: Masi

Date: 17 May 2019

Police and Crime Commissioner for Gloucestershire

<p><b>Public Access to Information</b></p> <p><i>Information in this form and associated reports is subject to the Freedom of Information Act 2000 and the Elected Local Policing Bodies (Specified Information) Order 2011. Where it has been indicated that this is a decision of significant public interest, all of this form except Part Two will be made available on the website of the OPCC.</i></p> <p><i>Any information that should not be automatically available on request should not be included in Part One but instead on a separate Part Two form.</i></p>	
<p><b>Is this a decision of significant public interest?</b></p> <p><i>This includes a decision with any impact on the community, expenditure in excess of £50,000, or any decision that would be of obvious interest to the media or the general public</i></p>	<p><b>Yes - The cost is above the £50K threshold.</b></p>
<p><b>Is there a Part Two form?</b></p> <p><i>This section should only include information that, if published:</i></p> <ul style="list-style-type: none"> <li>a) <i>would, in the view of the chief officer of the police, be against the interests of national security;</i></li> <li>b) <i>might, in the view of the chief officer of police, jeopardise the safety of any person;</i></li> <li>c) <i>might, in the view of the chief officer of police, prejudice the prevention or detection of crime, the apprehension or prosecution of offenders, or the administration of justice; or</i></li> <li>d) <i>is prohibited by any enactment.</i></li> <li>e) <i>breaches commercial sensitivity</i></li> </ul>	<p><b>No</b></p>

<b>ORIGINATOR CHECKLIST (MUST BE COMPLETED)</b>	<b>Comments including who has approved the report if applicable</b>
Has legal advice been sought on this submission if required?	Legal advice from the Attorney General outlines the risk to forces if they fail to comply with the CPIA requirements.
Has the Chief Finance Officer been consulted, if required?	Yes – through the Digital Programme Board
Have equality, diversity and human rights implications been considered, as appropriate?	Yes
Is the recommendation consistent with the objectives of the Police and Crime Plan?	Yes
Has consultation been undertaken with people or agencies likely to be affected by the recommendation?	Yes
Has communications advice been sought on areas of likely media, community, staff or partner interest and how they might be managed?	N/A
Have all relevant implications and risks been considered?	Yes

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## **PART ONE – For publication**

### **1. Purpose of the report**

In November 2018, The Attorney General published a review of the “Efficiency and Effectiveness” of Disclosure in the Criminal Justice System.

This document describes how the vast amounts of data contained on mobile devices are providing an “unprecedented challenge” that exacerbates issues with the disclosure process.

The report goes on to explain,

*“In meeting the complications caused by technology in the digital age, it is right that we adopt technological solutions, including Artificial Intelligence where appropriate.....to put this in context, early mobile telephones only had the capacity to hold a handful of saved messages or communication details – the average mobile phone today is capable of holding the data equivalent of about 5 million A4 pages.*

*The average human reader working a 40 hour week would take 40 years to read all that content.*

*It is clear that the right thing to do in these cases is to adopt new, technology-based approaches to managing this scale of material because it’s growth is outpacing human capacity to handle it.”*

This purpose of this submission is to seek approval for the procurement of additional technological equipment help meet this challenge:

1. To increase the number of mobile device download UFED kiosks, making the facility available across the Constabulary and networking the kiosks to enable centralised data storage.
  2. Provide an advanced data analytical product to assist with investigations and disclosure requirements of mobile device digital evidence.
- Each of these elements will require appropriate levels of funding and governance in order to proceed.

### **2. Background**

Digital evidence from devices such as iPhones etc. is increasing and now forms an enormous amount of information to process in an investigation.

Digital evidence disclosure is required by the CJS and can take months of an investigator’s time to provide. Investigating and processing all the data available and forming a complete picture of a person’s criminality is extremely difficult using manual systems.

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Artificial Intelligence and data analytics are available to greatly assist officers when dealing with enormous quantities of digital evidence – making substantial time savings and providing better evidence and consistent/repeatable research methodologies.

Quick triaging of a victim's or witness's mobile phone is key to obtaining best evidence and keeping the individuals engaged with the investigative process as well as maximising the compliance with the Victim's Code.

A force-wide networked mobile device kiosk facility would reduce unnecessary work in the Digital Forensic Unit and provide a greater level of evidence recovery.

The proposed system builds on current infra-structure and will provide:-

- Powerful analytics that rapidly and automatically correlate, filter and mine large sets of digital evidence from disparate data sources and cases to produce actionable insights
- Robust permission management and secure, role-based web clients that support simultaneous, collaborative workflows to maximize resources, speed decision making and share case data efficiently
- Cross-case investigative workflows that enable multiple users to easily and simultaneously search case data by subject, crime type or time period
- Seamless integration with existing agency IT ecosystems and programs to maximize current technology investments

### **Mobile Device Download kiosks**

The paper recommends extending the current set up (3 standalone kiosks) to 6 concurrent and networked kiosk licences available across 10 sites.

Benefits of this proposal:-

- Provision of facilities at across the Constabulary estate resulting in:
  - Improved service for victims / witnesses.
  - Significant reduction in mileage and travel time (estimated ~£3.4k in fuel costs and 13.5 weeks of an officer's time could have been saved Jan – Nov 2018).
  - Reduction in demand for Digital Forensics Unit, facilitating effective workload management / capacity and enabling improved service times for full download/examination.
- Centralised management of kiosk updates, assisting with ISO Accreditation.
- The kiosks will make use of the central storage facility of Communications Data as a Platform (CDaaP). This will allow investigating officers access to the data without delay and reduce the use of data discs. (CPS may still need the subsequent evidence provided on disc pending modernisation of their processes)

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## Data Analytics

Following the successful test of the UFED Analytics software on Op Range and Op Wicklow (See Appendix A for further details), the proposed option is to procure 5 concurrent/network licences of the software.

Benefits of this proposal include:

- Efficiency savings in the time required for investigating, manual data sifting, evidence production and disclosure processes.
  - Det. Supt. Julie Mackay estimates a significant reduction in overtime budget through the use of the software (See Appendix A for details)
- Enabling compliance with CPIA/Digital evidence disclosure responsibilities and in turn an improvement in the level of service to the public.
- Ability to interrogate multiple device downloads simultaneously (accessed via the CDaaP centralised storage). This allows Investigating Officers to readily access and efficiently evaluate all evidence sources, including the ever increasing data from mobile devices.
- Concurrent licence model making 5 licences of the software available across the organisation.
- The ability to auto-analyse and report on downloaded data will minimise the risk of missing key evidence in our investigations.

### 3. Recommendation(s)

It is recommended that:-

1. Funding of £141,247 is provided to allow the purchase of UFED kiosks
2. Provision is made for ongoing annual revenue costs of £23,095

### 4. Financial and resource implications

Full details of the costs are contained with Appendix A – but in summary, the costs are as follows:-

Item	Yr 1 (£)	Yr 2 (£)	Yr 3 (£)
<b>Kiosks: Option K3 Software Licences</b>	£16,680.00	£9,180.00	£9,180.00
Management Server	£1,607.54	£207.54	£207.54
Additional tip and cable set with organiser	£2,000.00	£0.00	£0.00
ICT Network Costs	£22,752.00	£0.00	£0.00
Desktop Computers (x 10 @ £700)	£7,000.00	£0	£0
UFED Kiosk Train the Trainer	£22,000.00	£0.00	£0
<b>Analytics: Option A2 Software Licences</b>	£54,000.00	£13,500.00	£13,500.00
Cellebrite Analytics Server (Server & OS)	£15,207.54	£207.54	£207.54
<b>Total</b>	<b>£141,247.08</b>	<b>£23,095.08</b>	<b>£23,095.08</b>

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## Breakdown of costs

The requested £141,247.08 capital investment consists of finances requested for Kiosks and Analytics.

Kiosks = £72039.54  
 Software = £69207.54  
 Total =

## Kiosks

<b>Kiosks: Option K3 Software Licences</b>	£16,680.00
Management Server	£1,607.54
Additional tip and cable set with organiser	£2,000.00
ICT Network Costs	£22,752.00
Desktop Computers (x 10 @ £700)	£7,000.00
UFED Kiosk Train the Trainer	£22,000.00

Total costs of kiosks = £72039.54

The **highlighted** areas are required regardless of whatever system is chosen – these are internal network infrastructure costs which total = £31359.54.

The actual cost of the UFED kiosks is £40,680

## Analytics

The costs of the analytics software is £69207.54

<b>Analytics: Option A2 Software Licences</b>	£54,000.00
Cellebrite Analytics Server (Server & OS)	£15,207.54

## Notes on procurement

It should be noted that a procurement process, supervised by SWPPD, has already taken place which resulted in an appropriate supplier being identified. As a result, purchases have already been made from that supplier.

This paper is seeking permission to return to that supplier based on the requirement that the additional equipment listed in this paper must be compatible with the existing equipment.

The analytical product choice has been informed by market research, Cellebrite case studies and investigating officer narratives.

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Comments from SWPPD regarding procurement include:-

“Due to the work performed, limited market capability and efficiency benefits the software can drive; Gloucestershire Police should progress the requirement as market leverage has been significantly reduced with procurement adding minimal additional benefit at this point and the markets current capability to meet your needs, needs more time to develop and grow.”

## 5. Risk assessment

It is clear that there are a number of reputational risks to the organisation if automated systems are not implemented and public expectation is that the Constabulary should have the appropriate technology available to maximise investigative opportunities.

Failure to implement the recommended technological solutions increases the risk of:-

- Failure of meeting the CPIA obligations for disclosure
- The consequential reputational risk to the organisation in cases not proceeding through the Criminal Justice System
- Inadequate provision of systems / processes which will increase the risk of not meeting ISO accreditation requirements
- Failure to cope with the increase in demand by investigators for the use of the kiosks along with associated analytics. Demand currently outstrips availability of licences.
- CPS and Defence agents disclosure expectations outstrip our current manual abilities.

## 6. Equality & Diversity impact assessment

None apparent in the proposal.

## 7. Environmental impact assessment

The implementation of these recommendations will contribute to the organisation's Carbon Management Plan with an estimated 4.5 carbon tonnes saved per annum which is based upon reduction in mileage travelled by staff having access to the kiosk solutions at a range of stations across the County.

## Contribution to the Police and Crime Plan

### Accessibility and accountability

*Getting the right resources to the right situation or problem first time, every time, on time and dealing with the matter appropriately and effectively.*

The use of triaging mobile device kiosks, which are networked and managed centrally, together with a digital evidence analytical product, will ensure investigative timescales are reduced, data are processed in a fast and proportionate manner and officers are more able to meet the needs of a modern Criminal Justice System.

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**Safer cyber**

*Alongside education comes the work being undertaken to embed the 'digital' components into every crime type and deliver a more technologically aware and capable investigative process regardless of the offence.*

Both the kiosks and analytical function progress an officer's awareness and use of digital evidence. The ability to use all the digital evidence available effectively is at the heart of the business case's recommendations.

Furthermore, this proposal contributes to objectives 3, 5 and 7 of the Constabulary's Corporate Strategy 2017 – 2021 whilst also aligning to the Modernising Services and Policing Transformation Programmes.

**8. Consultation**

Communications & Engagement		
Crime Command Portfolio	✓	Will help meet digital disclosure and investigative obligations which presently pose a great risk to the constabulary.
Environmental		
Estates		
Finance	✓	
Governance & Compliance (DP, ID, RM, AC, IS, Unifi, PNC & H&S)		
HR/Training/Ethical	✓	Will assist staff welfare by reducing workload. Training is online and
ICT	✓	Hardware and network changes need to be made to support this work.
Legal		
Local Policing Portfolio	✓	Will save officers' time and improve investigations.
Operation's Security	✓	Software only applications, run on our hardware, enable a full security scan of products
Other (subject expert – see 'consultee list' below)	✓	Digital Programme Board supported the business case Appendix A
Staff Associations – (Federation/ Unison/ Supts)		
Sustainability		

**9. Discussed with Communications & Engagement**

An internal communications plan will be implemented to publicise the capabilities and availability of the new equipment when it is purchased.

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## 10. Conclusion

This proposal aims to modernise the approach to analysing data contained on mobile data devices both in terms of handling the download of mobile device data via kiosk facilities and the subsequent “big data” analytics.

The number of mobile device examinations processed and the associated volume of data requiring research/analysis has grown substantially over the last few years, the enormous amount of information that is now contained on mobile devices makes it extremely difficult for an officer to investigate or adequately disclose evidence to comply with the CPIA;

There is a public expectation that the Constabulary is sufficiently equipped with technological equipment which facilitates the downloading and processing of data from mobile devices and supports officer in investigating offences appropriately.

The recommendations in the paper will address the current shortcomings and enhance the Constabulary’s abilities, thereby improving the service to the public and reducing organisational risk.

### SPONSORING BOARD MEMBER APPROVAL

**Name: Jon Stratford**

**Job title: Deputy Chief Constable**

**Signature:**



**Date: 19 March 2019**

### DEPUTY CHIEF EXECUTIVE APPROVAL

I am satisfied that relevant advice has been taken into account in the preparation of the report and that this is an appropriate request to be submitted to the PCC.

**Signature:**



**Date: 21 March 2019**

Appendix A – Full Business Case – remote download, management and analysis of mobile devices.

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