

REQUEST FOR DMPC DECISION – PCD 415**Title: Forensics Remote Search and Review Pathfinder****Executive Summary:**

Forensically recovered data from digital devices is critical to a majority of criminal investigations conducted in the Metropolitan Police Service. Demand for such data has consistently increased, with a consequent increase in the number of devices seized and volume of data recovered. The examination of recovered data is not only time consuming for officers, it is also becoming too complex to do manually. There is an immediate need for a simple data search and review software tool to assist officers with reviewing forensically recovered data for evidence and disclosure purposes.

The Tracks Inspector Remote Search & Review Pathfinder has three objectives:

- Provide a simple data search and review tool to assist officers to review forensically recovered data for evidence and disclosure purposes;
- Use the case data review to refine the search and review tool functionality and establish infrastructure required to scale the system;

Utilise the search and remote tool to test a selection of scenarios and use cases defined by various operational units.

Recommendation:

The Deputy Mayor for Policing and Crime is recommended to:

- Agree a 6 month Pathfinder project, with 20 user licenses that will provide access to faster, more efficient and effective data review, provide the opportunity to validate the infrastructure requirements of the software tool, perform stress test for data ingestion and an early validation of the expected costs to support the wider Full Business Case and deployment.
- Approve a Capital Spend of £804k of capital which is in the current capital plan for the Next Generation Forensic Infrastructure - Labnet project.
- Note that Forensic Services will fund a £57k Revenue requirement from an underspend in their staff budgets which will be vired to the supplies and services budgets.

Deputy Mayor for Policing and Crime

I confirm I have considered whether or not I have any personal or prejudicial interest in this matter and take the proposed decision in compliance with the Code of Conduct. Any such interests are recorded below.

The above request has my approval.

Signature

Ernie Under

Date

31/7/18

PART I – NON-CONFIDENTIAL FACTS AND ADVICE TO THE DMPC

Decision required – supporting report

1. Introduction and background

- 1.1. The Mayor's Police and Crime Plan 2017-2021 recognises that "rapid recovery of data from digital devices such as smartphones is critical to the majority of criminal investigations", and makes a commitment to invest in this technology. Demand for digital forensics is increasing exponentially and now circa 80% of crimes involve the use of digital evidence either as direct evidence (for example cases involving indecent images of children) or indirect evidence that furthers the case.
- 1.2. The examination of recovered data is not only time consuming for officers, it is also becoming too complex to do manually. The current system produces extracted data in a csv file or a pdf file, which officers often print out to scrutinise on paper. These are currently very difficult to search or analyse. A recent example within a case produced 77,486 pages from an iPhone. This type of volume is common place at the current time.
- 1.3. Digital data is currently managed on removable media (DVDs / USB sticks) and requires officers to locate standalone computers to examine the data, and even then the tools available are inadequate. This process also exposes Metropolitan Police Service to serious risk of data being lost or stolen.

2. Issues for consideration

- 2.1. Since December 2017, there have been a number of high media profile cases where evidence disclosure in criminal cases has been found insufficient. All of these cases have related to the review of data recovered by digital forensic processes, where data undermining the prosecution case or of relevance to the defence case was not found by the officers' reviewing data from offenders or victims' digital devices. These cases have all led to prosecutions for serious crime being discontinued.
- 2.2. The Crown Prosecution Service (CPS) and National Police Chiefs' Council are urgently producing guidance on disclosure, particularly relating to digital evidence. CPS have issued advice on the extent to which data must be reviewed, to a level far greater than required under the Attorney General's Guidelines on Disclosure.
- 2.3. A primary cause of these failures is that the volume of data recovered by the forensic process is very large (often tens of thousands of messages and images on a single device), and the format of the data as provided to the officer makes it extremely difficult to search and review.
- 2.4. Full implementation of the selected product is not immediately possible, and will be complex due to: Emerging extraction tools, ever evolving digital technologies, technical infrastructure requirements, system integration with existing/future systems and data volume storage requirements.

- 2.5. The two-step approach (with the Pathfinder being the first step) offers support of the immediate operational requirement coupled with enabling greater definition and qualification of the longer-term full implementation of the Remote Search & Review function across the Metropolitan Police Service.

3. Financial Comments

- 3.1. The capital implementation cost of £804k is fully funded from the existing capital programme.
- 3.2. The additional revenue cost for the 6 month pathfinder will be funded from an underspend in staff budgets.

4. Legal Comments

- 4.1. The Mayor's Office for Policing and Crime (MOPAC) is a contracting authority as defined in the Public Contracts Regulations 2015 ("the Regulations"). All awards for public contracts for goods/services valued at £181,302 or above must be procured in accordance with the Regulations. This report confirms the value of the proposed contract exceeds this threshold. Accordingly, the Regulations are engaged.
- 4.2. This report confirms the procurement of a full solution will be through the MOPAC's value added reseller contract with Insight. This will represent a compliant route to market on the basis the MOPAC's requirements are within the technical and financial scope of that contract. This point is confirmed by Commercial Services.
- 4.3. The report also confirms that the Proof of Concept pilot exercise was also undertaken through the MOPAC's contract with Insight. DLS are instructed that the market place was made aware of the opportunity to participate in the pilot and the extent was made known to all tenderers. This point is confirmed by Commercial Services.
- 4.4. Paragraph 4.13 of the MOPAC Scheme of Delegation and Consent provides that the Deputy Mayor for Policing and Crime has delegated authority to approve all requests to go out to tender for contracts of £500,000 or above, or where there is a particular public interest.

5. Equality Comments

- 5.1. An Equality Impact Assessment has not been conducted at this stage. The Pathfinder is anticipated to have a negligible impact upon staff. The Strategic Inclusion and Diversity Unit at the MPS have agreed this paper.

6. Background/supporting papers

- 6.1. Report

Public access to information

Information in this form (Part 1) is subject to the Freedom of Information Act 2000 (FOIA) and will be made available on the MOPAC website following approval.

If immediate publication risks compromising the implementation of the decision it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary.

Part 1 Deferral:

Is the publication of Part 1 of this approval to be deferred? NO

If yes, for what reason:

Until what date:

Part 2 Confidentiality: Only the facts or advice considered as likely to be exempt from disclosure under the FOIA should be in the separate Part 2 form, together with the legal rationale for non-publication.

Is there a **Part 2** form – YES

It is recommended that the information in the Part 2 form not be published since if a request for this information was made under the FOIA, it is likely that it would be exempt from disclosure under the following sections for the FOIA:

Commercial Interest Section 43

Date at which Part 2 will cease to be confidential or when confidentiality should be reviewed: July 2022

ORIGINATING OFFICER DECLARATION

	<i>Tick to confirm statement (✓)</i>
Head of Unit: The Chief Finance Officer has reviewed the request and is satisfied it is correct and consistent with the MOPAC's plans and priorities.	✓
Legal Advice: The MPS legal team has been consulted on the proposal.	✓
Financial Advice: The Strategic Finance and Resource Management Team has been consulted on this proposal.	✓
Equalities Advice: Equality and diversity issues are covered in the body of the report	✓

OFFICER APPROVAL**Chief Executive Officer**

I have been consulted about the proposal and confirm that financial, legal and equalities advice has been taken into account in the preparation of this report. I am satisfied that this is an appropriate request to be submitted to the Deputy Mayor for Policing and Crime.

Signature R. Lawrence

Date 31/07/18



Tracks Inspector Remote Search & Review Pathfinder – Business Justification Paper

MOPAC Investment Advisory and Monitoring Board 28/06/2018

Report by DAC Duncan Ball on behalf of the Deputy Commissioner

Part 1 – This section of the report will be published by MOPAC. It is classified as OFFICIAL – PUBLIC

EXECUTIVE SUMMARY

Forensically recovered data from digital devices is critical to a majority of criminal investigations conducted in the MPS. Demand for such data has consistently increased, with a consequent increase in the number of devices seized and volume of data recovered. The examination of recovered data is not only time consuming for officers, it is also becoming too complex to do manually. There is an immediate need for a simple data search and review software tool to assist officers with reviewing forensically recovered data for evidence and disclosure purposes.

The Tracks Inspector Remote Search & Review Pathfinder has three objectives:

- Provide a simple data search and review tool to assist officers to review forensically recovered data for evidence and disclosure purposes;
- Use the case data review to refine the search and review tool functionality and establish infrastructure required to scale the system;
- Utilise the search and remote tool to test a selection of scenarios and use cases defined by various operational units.

A two-step procurement approach (with the Pathfinder being the first step) offers support of the immediate operational requirement coupled with enabling greater definition and qualification of the longer-term full implementation of the Remote Search & Review function across the MPS.

The purpose of this Paper is to set out the options for investment, the use, critical success factors and delivery of the Remote Search and Review Pathfinder prior, if successful, to full implementation of an Enterprise solution.

Recommendations

The MPS Portfolio & Investment Board (PIB) is asked to:

1. Agree a 6 month Pathfinder project, with 20 user licenses that will provide access to faster, more efficient and effective data review, provide the opportunity to validate the infrastructure requirements of the software tool, perform stress test for data ingestion and an early validation of the expected costs to support the wider Full Business Case and deployment.
2. Approve a Capital Spend of £804k of capital which is in the current capital plan for the Next Generation Forensic Infrastructure - Labnet project.
3. Note that Forensic Services will fund a £57k Revenue requirement from an underspend in their staff budgets which will be vired to the supplies and services budgets.

If supported by the MPS Portfolio & Investment Board, the Deputy Mayor for Policing and Crime, via the Investment Advisory Board (IAB), is asked to approve:

4. A 6 month Pathfinder project, with 20 user licenses that will provide access to faster, more efficient and effective data review, provide the opportunity to validate the infrastructure requirements of the software tool, perform stress test for data ingestion

and an early validation of the expected costs to support the wider Full Business Case and deployment.

5. Approve a Capital Spend of £804k of capital which is in the current capital plan for the Next Generation Forensic Infrastructure - Labnet project.
6. Note that Forensic Services will fund a £57k Revenue requirement from an underspend in their staff budgets which will be vired to the supplies and services budgets.

Time sensitivity

A decision is required from the Deputy Mayor by 06/07/2018.

Introduction and background

1. Forensically recovered data from digital devices is critical to a majority of criminal investigations conducted in the MPS. Demand for such data has consistently increased, with a consequent increase in the number of devices seized and volume of data recovered.
2. The Mayor's Police and Crime Plan 2017-2021 recognises that "rapid recovery of data from digital devices such as smartphones is critical to the majority of criminal investigations", and makes a commitment to invest in this technology. Demand for digital forensics is increasing exponentially and now circa 80% of crimes involve the use of digital evidence either as direct evidence (for example cases involving indecent images of children) or indirect evidence that furthers the case.
3. Digital Cyber and Communications (DCC) have responded to the demand by introducing 8 digital forensic hubs and over 80 forensic download kiosks across the MPS area, and have identified the need to introduce a simple data search and review tool to assist officers to find crucial evidence within the vast volume of digital data.
4. The examination of recovered data is not only time consuming for officers, it is also becoming too complex to do manually. The current self-serve kiosk does allow officers to Self-Serve but produces the extracted data in a csv file or a pdf file, which officers often print out to scrutinise on paper. These are currently very difficult to search or analyse. A recent example within a case saw the page size from an iPhone was 77,486 pages, this type of volume is common place at the current time.
5. Digital data is currently managed on removable media (DVDs / USB sticks) and requires officers to locate standalone computers to examine the data, and even then the tools available are inadequate. This process also exposes MPS to serious risk of data being lost or stolen.
6. The MPS are working with transforming Forensics the NPCC lead programme. The MPS are in early discussion around this work and the NPCC are keen to work with the MPS on this with the consideration of offering other forces a potential solution. At this time this position is not formalised, The MPS will continue to work with Transforming Forensics around the national potential across a range of Digital Forensics and Forensics projects.
7. The MPS Directorate of Forensic Services does encompass CT but this Pathfinder is aimed to serve Frontline Policing and Met Operations. Should the Pathfinder be followed by an Enterprise Solution then the Enterprise Solution will sit on the MPS Foundation Network which operates at Official or Official Sensitive Level. CT operate at Secret Level on a separate network. Potentially the software could be deployed onto the CT network but as a separate instance adhering to that particular network's security rules. CT are aware of the project and we will continue update them on the progress.

Key Issues to Consider:

8. There is an immediate need for a Search and Review product to be made available due to failures within The Criminal Justice System in the review and disclosure of digital evidence. The recent high media profile and risk to serious crime cases failing at or before court is additional justification for the need for such a tool. The requirement for a platform such as this has been understood for several years and was being planned prior to recent disclosure case review and escalation.

9. Since December 2017, there have been a number of high media profile cases where evidence disclosure in criminal cases has been found insufficient. All of these cases have related to the review of data recovered by digital forensic processes, where data undermining the prosecution case or of relevance to the defense case was not found by the officers' reviewing data from offenders or victims' digital devices. These cases have all led to prosecutions for serious crime being discontinued.
10. The Crown Prosecution Service and National Police Chiefs' Council are urgently producing guidance on disclosure, particularly relating to digital evidence (see National Disclosure Improvement Plan, January 2018). CPS have issued advice on the extent to which data must be reviewed, to a level far greater than required under the Attorney General's Guidelines on Disclosure.
11. A primary cause of these failures is that the volume of data recovered by the forensic process is very large (often tens of thousands of messages and images on a single device), and the format of the data as provided to the officer makes it extremely difficult to search and review.
12. Full implementation of the selected product is not immediately possible, and will be complex due to: Emerging extraction tools, ever evolving digital technologies, technical infrastructure requirements, system integration with existing/future systems and data volume storage requirements.
13. The two-step approach (with the Pathfinder being the first step) offers support of the immediate operational requirement coupled with enabling greater definition and qualification of the longer-term full implementation of the Remote Search & Review function across the MPS

Pathfinder Objectives

14. The Remote Search & Review Pathfinder has three objectives:
 - a. Provide a simple data search and review tool to assist officers to review forensically recovered data for evidence and disclosure purposes - specifically to support the CASO investigations subject to changed disclosure review procedure;
 - b. Use the case data review Pathfinder to refine the search and review tool functionality, and establish the infrastructure required to scale the system to the MPS network for 500+ officers, to enable a Final Business Case (FBC), procurement and installation project;
 - c. Utilise the remote search and review tool to test a selection of Scenarios and Use Cases defined by various operational units. These were documented during workshops with DCC and Operational Investigators and will help to confirm that the benefits to the organisation will be realised, should the MPS eventually opt for an Enterprise solution.

Options:

15. Three Options for investment are presented within the Business Justification Paper.
16. **Option 1 - Do Nothing:** the risk carried by doing nothing in this space would mean that the backlog of cases the MPS is currently experiencing would grow, worsening the current state in terms of discontinuance of cases, poor press coverage and ultimately could lead to victims choosing to not report crime.
17. **Option 2 - Full Enterprise Solution for Remote Search & Review:** As the MPS is not fully confident that the tool, in its current form, will be fully scalable to the MPS Enterprise requirements, some on-going work will need to be done with the supplier during the time of the Pathfinder.
18. **Option 3 - 6 month Pathfinder (Recommended Option):** This option will allow us to work through the questions that have been identified within Option 2, whilst understanding the Operational Value, the User Experience, the Technical Viability and the Commercial Viability of moving to a fully implemented Enterprise Solution. The controlled evaluation of the tool in a stand-alone environment and working alongside the supplier to answer questions will give the MPS confidence to move to the Enterprise Solution or choose not to.
19. There is no commercial or contractual obligation for MPS to procure the full Enterprise solution (from any supplier) on completion of this Pathfinder.

20. This option provides the MPS with an exit strategy in the event that the preferred supplier and chosen tool does not meet the full requirements of the MPS (is not scalable, user experience isn't favourable, cost for full Enterprise solution is not commercially viable etc.).

Critical Success

21. In order to demonstrate the value/benefits of this Pathfinder project, and recognising that an FBC for full implementation of the Enterprise solution will be produced, including the full range of supporting artefacts (benefits mapping, benefits profiles and benefits realisation plan), a number of critical success factors have been defined. These success factors will be monitored and measured throughout the period of the Pathfinder project, with the results being used to support the case for future investment and demonstrate the success of the Pathfinder.
22. Critical success factors have been divided into four key elements:
- a. Operational value (impact on operational priorities);
 - b. User experience (ease of use);
 - c. Technical viability (does it, or can it, fit with our technical framework?);
 - d. Commercial suitability and collaboration (can we work effectively with this supplier?).

Preferred Supplier:

23. An Invitation To Tender (ITT) for a Remote Search and Review capability was recently conducted, and a Proof of Concept (PoC) competition was completed with 3 leading suppliers for a product to meet the MPS needs. This process identified a preferred solution considered viable for deployment.
24. The product is a Commercial Of The Shelf (COTS) solution, has been tested by the MPS during the PoC and is being used by other forces. It is however, recognised that there needs to be additional work to the product before full implementation of an Enterprise solution can be progressed.
25. The Pathfinder will progress the previous work of the PoC but will give the MPS the confidence they need to ensure that the preferred Enterprise solution fully meets the MPS needs. This approach was endorsed by Procurement as being the option with the least amount of risk associated to it to progress the work. This approach also helps to offering in tandem a potential solution to ease Operational pressure from the recent Disclosure policy pressure from the CPS and Judiciary on the MPS.
26. The new data search and review tool will enable large volumes of data to be processed efficiently and accurately, in a forensically sound manner, eventually using the existing Foundation toolset (Laptops, Tablets and Terminals). It will be simple to use with minimal training required, will eliminate administrative inefficiencies such as handling removable media and finding suitable review workstations, and will enable effective data search, review and production into evidence or intelligence of relevant material.

Financial, Commercial and Procurement Comments

27. Utilising a Value Added Reseller (VAR) framework enabled the project to construct a process involving an evaluation of the products and a Proof of Concept phase in the shortest timeframe. The subsequent move into a Pathfinder phase remains within the scope of the original requirement. Any additional hardware required to enable the Pathfinder phase will be procured via the Value Added Reseller (VAR) agreement. The VAR uses its consolidated buying power for commodities to achieve the best price for the MPS in the market.
28. The agreement for the delivery of this service is between the MPS and the VAR and not directly with the end service provider. However, the operational management of the service delivery happens directly between the MPS and the end service provider.
29. The MPS believes that of all options explored, this is the best Value for Money and has been agreed by Commercial Services as carrying the least amount of risk.

30. Avatu the supplier have provided the MPS with their Supplier Code of Conduct. This covers Human rights, equality and diversity, Fair Employment practices and conditions, slavery, human trafficking and child labour, Health and safety, Environmental sustainability, Anti-Bribery, corruption and anti competitive practices, Secure Business and Blacklisting. The MPS agree with the suppliers Code of Conduct.

Legal Comments

31. The MPS Directorate of Legal Services have been consulted and two MPS Legal Representatives have had input to this paper.
32. The Mayor's Office for Policing and Crime (MOPAC) is a contracting authority as defined in the Public Contracts Regulations 2015 ("the Regulations"). All awards for public contracts for goods/services valued at £181,302 or above must be procured in accordance with the Regulations. This report confirms the value of the proposed contract exceeds this threshold. Accordingly, the Regulations are engaged.
33. This report confirms the procurement of a full solution will be through the MOPAC's value added reseller contract with Insight. This will represent a compliant route to market on the basis the MOPAC's requirements are within the technical and financial scope of that contract. This point is confirmed by Commercial Services.
34. The report also confirms that the Proof of Concept pilot exercise was also undertaken through the MOPAC's contract with Insight. DLS are instructed that the market place was made aware of the opportunity to participate in the pilot and its the extent was made known to all tenderers. This point is confirmed by Commercial Services.
35. Paragraph 4.13 of the MOPAC Scheme of Delegation and Consent provides that the Deputy Mayor for Policing and Crime has delegated authority to approve all requests to go out to tender for contracts of £500,000 or above, or where there is a particular public interest.

Equality Comments

36. An Equality Impact Assessment has not been conducted at this stage. The Pathfinder is anticipated to have a negligible impact upon staff. The Strategic Inclusion and Diversity Unit at the MPS have agreed this paper.

Privacy Comments

37. Full consideration has been given to how the MPS will ensure delivery of this project is compliant with GDPR regulations.

Real Estate Implications

38. There are no Real Estate Implications to this paper and Property Services Directorate have agreed the paper.

Environmental Implications

39. No environmental implications have been identified at this stage.

Report author:

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Part 2 – This section refers to the details of the Part 2 business case which is NOT SUITABLE for MOPAC Publication.

OFFICIAL - PUBLIC

The Government Security Classification marking for Part 2 is:
OFFICIAL-SENSITIVE [OPERATIONAL]

Part 2 of Tracks Inspector Remote Search & Review Pathfinder – Business Justification is exempt from publication for the following reasons:

- Exempt under Article 2(2)(a) of the Elected Local Policing Bodies (Specified Information) Order 2011

The relevant section under the FOIA that would exempt this information from disclosure is Commercial Interest Section 43.

The date at which part 2 will cease to be confidential or when confidentiality should be reviewed is July 2022.