

**REQUEST FOR DMPC DECISION – DMPCD 2014-105**

**Title: Data Centres – Business Case**

**Executive Summary:**

One element of the Total Technology Programme Infrastructure (TTPi) is the replacement of the existing data centre facilities. The MPS proposes the acquisition of a lease on a secondary data centre, and the fit out of both a primary and secondary data centre. The replacement of the Data Centre Managed Services contract is also proposed. These proposals will rationalise data centre space, consolidate distributed systems, and improve flexibility, security and resilience.

At this stage of development of the business case DMPC is recommended to approve the commencement only of lease negotiations for a secondary data centre, with MPS to obtain further approval to conclude, and the fit out of the primary data centre only.

The estimated costs of the lease is £20.5m over a 10 year period, and the capital investment to fit out the primary data centre is £1.2m.

All further requests and the approval of the conclusion of lease negotiations are subject to a more detailed business case being submitted to DMPC for further consideration.

**Recommendations:**

**That the Deputy Mayor for Policing and Crime approves:**

1. The commencement only of negotiations for the lease of a second strategic Data Centre with a maximum 10 year cost commitment of £20.5m, following a selection from 8 shortlisted suppliers. Award of the lease will be subject to separate DMPC approval.
2. Digital Policing, via the TTP Infrastructure programme to fit out the primary Data Centre at a cost of no more than £1.2m, (subject to legal confirmation of the procurement route) to enable the subsequent migration of IT equipment from the Capgemini Data Centres to MPS facilities

**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 for elected Members of the Authority. Any such interests are recorded below.

The above request has my approval.

**Signature**



**Date**

2/10/2014

## **PART I - NON-CONFIDENTIAL FACTS AND ADVICE TO THE DMPC**

### **Decision required – supporting report**

#### **1. Introduction and background**

- 1.1 The major MPS/MOPAC ICT change programme – Total Technology Programme Infrastructure – business case was approved in December 2013. One major element of this programme is the future of data centres.
- 1.2 The current provision is for 2 data centres supplied by Capgemini via 2 sub-contractors and a MPS leased facility. In addition, the structure is distributed across the MPS via 4 MPS data rooms and approximately 800 Technical Equipment Rooms (TER's).

#### **2. Issues for consideration**

- 2.1 The current arrangements are inflexible and costly due to the multiple methods of management, access control, monitoring, etc.
- 2.2 Both of the Capgemini provided data centres are nearing their maximum capacity, one is scheduled for significant upgrade in 2017 and the other does not meet the mandatory requirements set out in the current Data Centre strategy and will require significant investment. The MPS leased facility is under-utilised.
- 2.3 The MPS proposal is to
  - 2.3.1 Invest in the existing MPS leased data centre to increase its capacity and utilisation – enclosures, racks, power distribution, cabling, access devices and control hard/software, etc.
  - 2.3.2 Procure a second MPS leased data centre facility via a competitive tender approach
  - 2.3.3 Invest in this second MPS leased data centre facility
  - 2.3.4 Procure a Data Centre Managed Service provider to operate the 2 MPS leased data centres via a restricted OJEU procurement exercise
- 2.4 At this stage of the business case development the following is recommended for approval
  - 2.4.1 Investment in the existing MPS leased data centre as set out in 2.3.1 above, up to a value of £1.2m, and
  - 2.4.2 The commencement only of lease negotiations for a second data centre facility (2.3.2 above), and
- 2.5 All further requests and the approval of the conclusion of lease negotiations are subject to a more detailed business case being submitted to DMPC for further consideration.

#### **3. Financial Comments**

- 3.1 The proposed investment of £1.2m in 2014/15 in the MPS leased facilities can be met from within the existing MOPAC capital programme.

#### **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 2006 (the Regulations). When awarding public contracts for goods and services valued at £172,514 or above all contracting authorities must do so in accordance with the Regulations. The Appendix to this report confirms that each of the four elements of the Data Centre project will have an estimated value in excess of the above threshold. Consequently, the Regulations are engaged.

- 4.2 The acquisition of the new Data Centre facility (Hawk) shall be procured following a competitive tendering exercise.
- 4.3 The Data Centre Managed services provider to manage Eagle and Hawk facilities shall be procured using the Restricted procedure set out in the Regulations.
- 4.4 The procurement of the fit out of the data centre facilities shall be undertaken by Capgemini following a Contract Change Notice/Work Order under the existing Capgemini contract. DLS advice should be sought as to whether the proposed is within the technical and financial scope of the Capgemini contract.

## **5. Equality Comments**

- 5.1 There are no equality and diversity issues related to this paper. All procurement activity undertaken will do so in line with the relevant MPS policies and standards within MPS Procurement Processes with regard to responsible procurement issues.

**Public access to information**

Information in this form is subject to the Freedom of Information Act 2000 (FOIA) and other legislation. Part 1 of this form will be made available on the MOPAC website within 1 working day of approval. Any facts/advice/recommendations that should not be made automatically available on request should not be included in Part 1 but instead on the separate Part 2 form. Deferment is only applicable where release before that date would compromise the implementation of the decision being approved.

Is the publication of **this** form to be deferred? NO

If yes, for what reason:

Until what date (if known):

Is there a **part 2** form – YES

If yes, for what reason: Commercial confidentiality

**ORIGINATING OFFICER DECLARATION:**

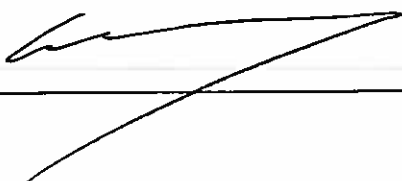
	<i>Tick to confirm statement (✓)</i>
<b>Head of Unit:</b> Annabel Cowell has reviewed the request and is satisfied it is correct and consistent with the MOPAC's plans and priorities.	✓
<b>Legal Advice:</b> The Legal team have been consulted on this proposal.	✓
<b>Financial Advice:</b> The Chief Finance Officer has been consulted on this proposal.	✓
<b>Equalities Advice:</b> The Equality and Diversity team have been consulted on this proposal on behalf of the Head of Equalities and Diversity.	✓

**OFFICER APPROVAL**

**Chief Operating 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



Date 2/10/2014

## TTP Infrastructure Data Centre Procurement Business Case

JAMP- Wednesday, 24 September

Report by TTPI Data Centre Procurement Team

### EXECUTIVE SUMMARY

The MPS embarked on a significant ICT change programme as detailed in the Digital Policing Total Technology Programme Infrastructure (TTPI) business case approved on the 4th of December 2013. A significant part of this programme is the replacement of the Capgemini managed service contract, and, where advantageous, additional existing ICT based contracts with the strategic, multi-vendor SIAM and tower model. This will include:

- Setting up data centre facilities for newly developed services (*e.g. Mobility*)
- Capture data on current infrastructure to support future phases and project (*Discover*)
- Re-Tender for the provision of new infrastructure services from new suppliers (*Buy*)
- Scope and carry out projects to address current key issues such as obsolescence (*Repair*)
- Slim down our infrastructure in advance of migration through server virtualisation and storage consolidation projects (*Prepare*)
- Set up new services areas in Eagle data centre and a DR site (*Build*)
- Transfers applications onto future infrastructure (*Move*)

This paper outlines the details contained within the Total Technology Programme Infrastructure (TTPI) Data Centre business case, which details the approach and timescales for acquiring a Property Services owned lease on a secondary Data Centre facility (Hawk), fit out of the current primary (Eagle) and secondary (Hawk) Data Centres with racks and cabling and the replacement of the Data Centre Managed Services contract with Capgemini.

The business case details the Data Centre strategy which supports the MPS overall strategy to rationalise data centre space, consolidate distributed systems and retire end of life and ageing equipment to meet business demands and reduce risks. This business case will deliver savings on average of £3m p.a. (Maximum savings projected at £4.4m and minimum of £1.9m in year 10) through the replacement of the Data Centre facility and Managed Services provider and is part of the overall TTP Infrastructure programme which aims to deliver overall savings of £25-£30m p.a.

The total value of the business case is estimated at:  
A total spend of **£26.5m** for the Data Centre project:

#### Revenue Spend

1. Lease of a Data Centre facility (Hawk) - **£20.5m** over 10 years (length of lease)
2. Replacement of the Capgemini Data Centre Managed Services contract - **£4.0m** over 3 years

#### Capital Spend

3. Fit out of Eagle to prepare the data hall for additional equipment - **£1.2m**
4. Fit out of Hawk facility in preparation to receive equipment - **£0.8m**

## **A. RECOMMENDATIONS - That**

### **MOPAC approve:**

1. The Data Centre business case and its implementation.
2. The sourcing strategy and the commencement of the procurement activity.

## **B. SUPPORTING INFORMATION**

### **Background**

1. Joint Investment Board approved the TTP Infrastructure "Buy" business case (business case to assemble the resources to undertake the procurements), as part of the suite of Total Technology business cases, in December 2013.

The scope of this business case included the procurement activities required to replace the current single managed service contract (held with Capgemini) with 6 separate contracts:

- a) Service Integration and management (SIAM) – including Service Desk, Service Management Tools & Processes
  - b) End User Computing – including desktop / virtual desktop
  - c) Hosting Services – including compute, middleware, database, web, storage services
  - d) Data Centre Services – the physical and logical management of the data centre
  - e) Network Services – including telephony, back-ups, etc.
  - f) Application Support – application management services
2. This business case covered all resources and services internal or external (Technical, Commercial, Finance, Legal and HR) required to select the new providers and establish the associated contracts.
  3. In conjunction with the TTP Infrastructure "Buy" business case, Joint Investment Board noted an outline view, by tower, of the potential capital investment required and ensuing benefits to be delivered through changes to our current infrastructure estate and the new contracts needed to support.
  4. This paper outlines the detailed business case with regard to the Data centre tower and associated managed services, and the next steps required.

5. The current contract is based on a single vendor, supplying 2 Data Centre facilities (Osprey & Kestrel) through sub-contractors (Unisys & Global Switch) Capgemini manage these data centres along with a PSD leased Data Centre facility (Eagle).
6. The MPS Estate is further distributed amongst four MPS data rooms (Hendon, Bow, Lambeth and Jubilee House) and approximately 800 Technical Equipment Rooms (TER's), with varying specifications, efficiency and resilience across all of the sites. These sites are not managed under the current Capgemini contract.
7. Management, access control, monitoring, inventory and asset control is provided using multiple methods, with many areas not under central control, which results in an inflexible and costly model.
8. Extending or signing new contracts with the current Data centre facility providers (Unisys and Global Switch) is not feasible. The Data Centres are nearing maximum capacity, with Osprey being 89% utilized (290kW Capacity) and Kestrel 82% of the 600kW power capacity being used.
9. Kestrel (supplied by sub-contractor Global Switch) is also scheduled for a significant upgrade in 2017, which will take place post the contract termination with Capgemini. Osprey (supplied by Unisys) does not meet the minimum mandatory requirements as laid out in the current Data Centre Strategy, which includes being outside of the maximum 75km radius and also does not meet the minimum power density and total site power specified. The site would require significant investment to update the ageing DC infrastructure.
10. The Eagle Data Centre facility, which is leased through Property Services, is currently under utilised. The data hall is currently configured with 2 sets of cold isle containment rack enclosures, with the remainder of the 1000sq meter data hall empty. The Eagle Data hall has the capacity of housing a total 9 sets of cold isle containment enclosures along with additional footprint to host a number of free standing rack mounted systems.
11. If the MPS were to continue along its traditional distributed data centre and system strategy, funded in physical and logical business unit stoves "by application" then the costs of delivering IT services will continue to increase.
12. This business case seeks to address the Data Centre and Data hall challenges by proposing a multi-vendor model with improved contract terms, which in turn will feed in and support the other towers within the infrastructure programme.
13. This solution will provide the MPS with a strategic consolidated location for IT equipment, which will reduce operational costs, improve security, resilience and increase utilisation.
14. In accordance with the agreed SIAM & Tower model approach, the target is to procure and lease a second Data Centre (Hawk) through Property Services (PSD,) outside of the restricted Official Journal of the European Union (OJEU). The Data Centre facility will be acquired under a separate PSD acquisition process, with detailed specifications and requirements to be provided by the TTP Infrastructure programme.

15. The secondary Hawk Data Centre facility will be located within 75km of the current Eagle Data Centre. This will provide the MPS with two (2) Production class Data centre facilities with Active / Active load balanced capabilities, a secure environment for the core infrastructure and capabilities for infrastructure to expand.
16. By consolidating infrastructure, through virtualisation and decommissioning, equipment from the data rooms and TER's can be relocated into the strategic Data centre facilities, resulting in a reduced footprint and overall management costs. This aligns with the overall MPS property rationalisation strategy, maximising building space for people rather than equipment.
17. The Data Centre Managed Services provider will be procured via OJEU to operate the two Data Centres (Hawk & Eagle) with the option to include the management of additional sites later, if required. Management responsibilities will include data hall operational and environment monitoring, rack and structured cabling installation, Data Centre capacity management and physical asset management and tracking.
18. As previously detailed, the current Eagle Data Centre facility is under utilised and in order to prepare the data hall to receive more equipment the following preparation will need to occur:
  - a) Additional Cold isle containment enclosures would need to be placed within the data hall (up to an additional 7)
  - b) Each enclosure would then need to be populated with racks of the required quantity
  - c) Each rack would then require:
    - d) Power distribution
    - e) Structured cabling
    - f) Local Network access devices (top of row switches etc)
    - g) Access control hardware and software
    - h) Temperature & environment control hardware and software
19. All works to complete the Eagle fit out should be carried out continuously in order to minimise the impact and risk to the live services currently being hosted within the facility.
20. Once the secondary Hawk Data Centre facility has been acquired, similar preparatory work will have to be undertaken in the data hall prior to receiving equipment. The work associated with expanding the capacity of the Eagle Data hall as well as the secondary Hawk Data centre facility, will be undertaken by Capgemini under CCN.
21. This business case will provide the environment for establishing a MPS private cloud; the exact requirements of which is yet to be determined.



22. There are three (3) distinct procurement elements in this business case:
  - a. Acquisition of the new Data Centre facility (Hawk)
  - b. Procurement of the Data Centre Managed services provider who will manage Eagle and Hawk facilities
  - c. Procurement of the fit out of the data centre facilities through the Capgemini CCN
23. For the procurement of the Data Centre facility, a competitive tender approach has been chosen as the recommended approach for the sourcing of this requirement. As the commodity falls within the remit of PSD, PSD will lead on an acquisition exercise to source the new data centre using its relevant framework Agent (sourced through a previous competitive tender exercise) to undertake an initial market engagement and provider short listing process against the outline MPS requirements.
24. A Restricted OJEU procurement has been selected as the recommended procurement route for the Data Centre Managed Services supplier, as it offers the MPS as much flexibility as needed and is the most reliable method of ensuring the MPS gets the right ICT on the right terms, and thus realises potential efficiency savings and operational benefits. This re-confirms the planned procurement route for this requirement previously within the December Outline Business case
25. Given the financial size of the requirement and the need for prompt action to fit out the data centre, fit-out requirements will be included in a Cap Gemini CCN/Work order (in line with the conditions agreed in the March 2014 MPS-Cap Support CCN)
26. The agreement with regard to transition of services etc. will be undertaken as part of the ongoing Cap transition/exit team work in line with the condition of the March 2014 MPS-Capgemini CCN . This requirement, including costs, will be covered in greater detail in a future paper to MOPAC dealing with all transition requirements.
27. The current MPS lease for Eagle contains an option to extend our lease beyond the current end date of 2020 by five years. Whether the MPS should take such an option up will be the subject of a separate paper to MOPAC at a later date.

### **Timescales**

28. Subject to approval, the TTP Infrastructure programme plans to progress the procurement of the Data Centre facility and Data Centre Managed Services provider as detailed in the timescales specified below:

#### **Hawk Facility Procurement**

- Sep 2014 - Final selection for Data Centre Facility (Hawk)
- Dec 2014 - Hawk Lease completion

#### **Data Centre Facility Procurement:**

- Sep 2014 - Issue OJEU for Data Centre Managed Services procurement
- April 2015 - Contract award for Data Centre Managed Services Provider.

**Data Centre Fit out:**

- Sep 2014 – Fit out of Eagle Data Centre
- Feb 2015 – Fit out of Hawk Data Centre

**Savings**

29. The savings associated with replacing the Data Centre service provider is anticipated to be in the region of £3m p.a. When the Data Centre procurement project savings is combined with the other phases of the infrastructure plan (Discover, Repair, Prepare, Build and Move) the benefits are expected to be a £25m to £30m reduction in annual operating cost.

**C. OTHER ORGANISATIONAL & COMMUNITY IMPLICATIONS**

**Equality and Diversity Impact**

1. There are no equality and diversity issues related to this paper. All procurement activity undertaken will do so in line with the relevant MPS policies and standards within MPS Procurement Processes with regard to responsible procurement issues.

**Financial Implications / Value for Money**

1. A full analysis has been undertaken to establish the benefits with replacing the Capgemini contract with multiple vendors as detailed in the business case. These savings line up with the projected savings as outlined in the TTP Infrastructure business case.

**Legal Implications**

- a) The Mayor's Office for Policing and Crime (MOPAC) is a contracting authority as defined in the Public Contracts Regulations 2006 (the Regulations). When awarding public contracts for goods and services valued at £172,514 or above all contracting authorities must do so in accordance with the Regulations. The Executive Summary section of this report confirms that each of the four elements of the Data Centre project will have an estimated value in excess of the above threshold. Consequently, the Regulations are engaged.
2. Paragraphs B20-23 confirm that the procurement strategies relating to each element of the Data Centre project are as follows:
- a) Paragraph B21 - the acquisition of the new Data Centre facility (Hawk) shall be procured following a competitive tendering exercise.

- b) Paragraph B22 - the Data Centre Managed services provider to manage Eagle and Hawk facilities shall be procured using the Restricted procedure set out in the Regulations.
  - c) Paragraph B23 - the procurement of the fit out of the data centre facilities shall be undertaken by Capgemini following a Contract Change Notice/Work Order under the existing Capgemini contract. DLS advice should be sought as to whether the proposed is within the technical and financial scope of the Capgemini contract.
3. Authority to initiate each procurement action should be obtained in line with the MOPAC Scheme of Delegation.

### Consultation undertaken

1. The Data Centre strategy has been reviewed by a number of stakeholders and Steering committee members.

### Consultation grid

Key stakeholder engagement (up to what level)	Supportive / Supportive with concerns / Not supportive / Not affected
Richard Thwaite - Interim Director of Information Technology	Supportive
Director of Information Services - Elvis Persaud	Supportive
Property Services - David Taylor	Supportive
TTP Infrastructure Director - Chris Naylor	Supportive
Procurement Director - Lee Tribe	Supportive
Head of Support Services - Dave Perry	Supportive

### Risk (including Health and Safety) Implications

1. There are no Health and Safety implications for this business case.

### Real Estate and Environmental Implications (if relevant to the subject)

1. Although the MPS overall strategy is to rationalise property; as part of this business case a secondary Data Centre will be acquired and directly leased by MPS. This will enable the MPS to separate the Data Centre facility lease from the Data Centre Managed Services, which will allow the option to change providers without having to relocate entire Data Centres and ICT equipment in the future and will also allow options to own or rent the infrastructure.

**Report author:** Tania Eiberg, Data Centre Project Manager,  
Daimon Brown, Solution Lead

**Background papers:** TTP Infrastructure "Buy" Business case, Data Centre Positioning Paper



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