GREATER**LONDON**AUTHORITY

REQUEST FOR DEPUTY MAYOR FOR FIRE & RESILIENCE DECISION – DMFD111

Title: Incident Command Operating System and associated hardware

Executive Summary:

This report seeks the approval of the Deputy Mayor for Fire and Resilience, for the London Fire Commissioner (LFC) to commit total expenditure of up to £4,000,000 (£2,500,000 revenue and £1,500,000 capital) to procure and manage software, to replace the existing Command Support System (CSS) utilised on Command Unit vehicles, for collation and storage of information at operational incidents.

The procurement of a new Incident Command Operating System (ICOS) will allow the incident commanders and remote monitoring officers/Control to have a greatly improved situational awareness of an incident. This ICOS will enhance the decision making of incident commanders and the ability to record their decisions both in writing and verbally. ICOS will also allow information to be retrieved post incident to assist with incident learning and teaching through decisions made during the incident.

The report also seeks approval for expenditure on new hardware for command Information Technology hardware for Command Units, and for two hardware refreshes after four and eight years respectively.

The London Fire Commissioner Governance Direction 2018 sets out a requirement for the London Fire Commissioner to seek prior consent before *'[a] commitment to expenditure (capital or revenue) of £150,000 or above'*. The Direction also provides the Deputy Mayor with the authority to *'give or waive any approval or consent required by [the] Direction'*.

Decision:

That the Deputy Mayor for Fire and Resilience authorises the London Fire Commissioner to:

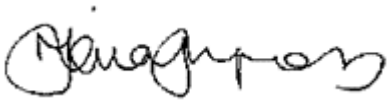
1. Commit revenue expenditure of up to £2,500,000 for a ten-year contract to the successful bidder following the restricted OJEU compliant procurement process.
2. Commit capital expenditure of up to £500,000 for the financing of the deployable Information Technology (IT) hardware.
3. Commit capital expenditure of a combined cost of up to £1,000,000 for the two future Information and Communications Technology (ICT) hardware refreshes in years four and eight of the Command Unit's life span.

Deputy Mayor for Fire and Resilience

I confirm that I do not have any disclosable pecuniary interests in the proposed decision.

The above request has my approval.

Signature:



Date:

16 March 2021

PART I - NON-CONFIDENTIAL FACTS AND ADVICE TO THE MAYOR

Decision required – supporting report

1. Introduction and background

1.1. Report LFC-0485 to the London Fire Commissioner (LFC) sets out the background for the request to procure and manage software, known as the Incident Command Operating System (ICOS), used on the London Fire Brigade's (LFB's) Command Unit (CU) vehicles. A new system will replace the existing software, Command Support System (CSS).

Purpose of the ICOS

1.2. The new ICOS will be installed and utilised on the nine new command units that are in a separate procurement stream through the CURP, and due to enter service in 2022. The CU vehicles are a separate procurement workstream with funding already agreed in Deputy Mayor for Fire and Resilience Decision 52.

1.3. The ICOS is designed to help incident commanders at all levels within the command hierarchies to manage emergency incidents using dynamic incident information. Incident information is displayed graphically within a clear intuitive interface and can be controlled using simple touch-screen movements, or via a mouse click to create and share a Common Operational Picture.

1.4. ICOS provides fast, clear access to a wide variety of critical incident data – objectives, maps, video feeds and other assets – and enables this data to be collected and used within a clear Decision-Making Model.

Current system

1.5. The current ICOS, called Command Support System (CSS), was procured from Vector Command, prior to the intellectual property rights being bought out by Telent in 2016. CSS has been utilised within the London Fire Brigade since 2010. CSS is utilised on all Command Units (CU) at operational incidents, to assist the incident commander with operational awareness and information collation and storage.

1.6. The CSS provides the following main functions to the incident commander:

- appliance and officer role boards containing information on ridership and operational qualifications, taken from the LFB staff attendance and recording system (StARS);
- an organisational chart for the incident ground hierarchy;
- document and photograph storage for incident relevant information, available to all CSS users; and
- live map with aerial overlay to allow the incident commander to manually plot resources on the incident ground.

1.7. LFB are currently using Telent CSS version 1.7, which is an application-based software installed on the fixed IT hardware and laptops within the CUs. The LFB updated CSS from the previous version 1.5 to version 1.7 on laptops carried on the CUs in January 2018 and on all CU fixed IT hardware by March 2019, which offers better reliability at incidents.

1.8. There is no agreed or paid-for service level agreement (SLA) with Telent, as they do not support version 1.7. LFB have on several occasions requested Telent to supply a proposal for an upgrade to version 1.8 and associated support, but to date this has not yet been provided.

1.9. Due to the lack of engagement from Telent to upgrade the CSS and the requirement for a new ICOS which meets the needs of the LFB, as outlined in paragraphs 1.16 and 1.17, it was decided to go to market for a new solution that will be fully supported throughout the term of the contract. The tenders received have all proposed options which include regular updates and access to new developments during the contract term.

Performance issues

1.10. Over the last ten years, there have been many challenges with ensuring the stability of the CSS platform. These include not being able to utilise tablets and deployable cameras to give the incident commander a greater situational awareness at an incident.

1.11. The Grenfell Tower Inquiry Phase 1 report recommended that urgent steps be taken to ensure that the CSS is fully operative on all command units and that the crews are trained in its use. This was due to repeated concerns being raised about the functionality and resilience of the current CSS system on LFB's existing Command Units. LFB took initial steps to upgrade the CSS, with the procurement of the new ICOS representing a long-term improvement that addresses issues raised by the Inquiry.

1.12. Following upgrades to the LFB server housing CSS and to the computers within the command units, CSS at present, has a better stability at incidents. The new ICOS procurement requirements specification has fed that learning in and will make the ICOS cloud platform more stable and intuitive for the user.

2. Objectives and expected outcomes

Incident Command Operating System

2.1. The primary objective is to replace the existing CSS with a new ICOS that will integrate with existing LFB systems and pave the way for the use of many new functions at the incident ground. The procurement process will identify and purchase an incident command operating system which fully meets or exceeds the current system. This includes:

- GPS location and plotting of appliances on the live map, removing the need for manual interaction. This will also include senior officer location at incidents, at a later point when GPS location becomes available within their Emergency Services Network (ESN) devices;
- ability to view drone footage, body worn cameras or video imagery from within ICOS on the CU fixed IT hardware or a variety of portable devices;
- ICOS is to be a cloud-based solution which supports the ICT digital strategy of cloud based first and allows for ease of multiple users. A hybrid solution will be installed on the CU to cover if there is a loss of data communications;
- ICOS will be viewable from a variety of devices within the LFB through a web-based application, to allow for maintenance to skills of personnel and the remote monitoring by senior officers;
- ability to update and view ICOS from various handheld portable devices including an App for Android/IOS devices; and
- the integration of current and new risk assessments to include Analytical and Environment risk assessments. Also, any other required documents that the LFB wish to utilise at incidents in the future.

2.2. A decision was taken within LFB's Command Unit Replacement Project Board (CURP) that the new incident command operating system must also be a cloud-based solution which supports the ICT digital strategy of cloud-based first. Through procuring a cloud-based solution, this will reduce the impact on LFB's servers by the software central server being hosted within the cloud.

2.3. The ICOS tender will have a ten-year contract to tie into the command unit replacement vehicle procurement (referred to in paragraph 1.2 above) which have an expected twelve-year life span. This will allow for the LFB to look at new developments and systems that come onto the market. Through procuring a cloud solution, the ICOS platform will be agile and the LFB will receive regular updates and upgrades to the software through annual licencing. At present with CSS, the LFB would be required to pay for upgrades if they were available.

2.4. The ten-year contract will also include an ongoing 24/7/365 support package and initial training by the supplier for the LFB personnel required to use it.

2.5. The initial training by the ICOS provider will be for up to three hundred personnel to include but not limited to:

- CU personnel;
- Babcock's Training trainers;
- Babcock Critical Services CU IT technicians;
- LFB IT support staff;
- control operator trainers; and
- chosen operational officers.

2.6. All issues/defects will be passed directly to the software suppliers via a call centre for resolution under the service licence agreement. This will reduce the impact and downtime on LFB ICT department trying to resolve issues that may occur within the software. At present any faults with CSS are dealt with by the LFB ICT department for resolution.

2.7. The access and interrogation of information within ICOS, as required for post incident reviews, will be through the LFB information access team following completion of the required data release paperwork. Information and decisions recorded within ICOS can be played back during an incident. They can also be used at a performance review of command of the incident, to assist in the feedback and personal development of officers that attended the incident.

2.8. The use of deployable technology across the incident ground to give real time information updates within the ICOS on the command unit, which will include cameras and portable devices utilising a data connection.

2.9. The current implementation plan is to go live with ICOS in line with the first new CU in April 2022. The licence fee is due annually and the support costs for ICOS will be paid on a monthly basis.

Hardware requirements

2.10. This report also requests authority for expenditure on new IT hardware. In order to utilise the ICOS when the new CUs are ready to be deployed there is a requirement to invest in new deployable command unit IT hardware. This hardware is equipment for each of the nine command units and consists of laptops, tablets and remote camera facilities. The procurement for these items has not yet commenced. The procurement will be run in accordance with Public Contract Regulations and LFC standing orders with support from the LFB Procurement team and General Counsel where required. The cost of the hardware is expected to be up to £500,000.

Hardware refreshes

2.11. This report also requests approval for expenditure on two hardware refreshes. During the life of the ICOS contract there will also be a requirement for two fixed IT hardware refreshes on the CUs and for

the deployable IT hardware discussed in paragraph 2.10. It is anticipated that these will be required in years four and eight of the contract. This is due to the IT hardware having an anticipated lifecycle of four years. The procurement for these items has not yet commenced. The procurement will be run in accordance with Public Contract Regulations and LFC standing orders with support from the LFB Procurement team and General Counsel where required. The initial fixed IT hardware will be provided with the command unit by the vehicle supplier. It is anticipated that each refresh will cost up to £500,000, amounting to £1,000,000 in total.

Alternative Options Considered and Consultation

2.12. An alternative option is to maintain the use of CSS and upgrade to the latest version 1.8. However, CSS does not have the ability to receive imagery from drone or body worn cameras so does not meet the new LFB requirements.

2.13. The lack of engagement from the current supplier outlined above in paragraph 1.9 was also a serious concern. There is uncertainty as to whether further updates of CSS will be available and in what format, and whether they will be cloud or vehicle based. This would cause uncertainty going forward with knowing whether the existing CSS platform would be updated/upgraded to meet the needs now and in the future for the LFB.

3. Equality comments

3.1. The London Fire Commissioner and decision takers are required to have due regard to the Public Sector Equality Duty (s149 of the Equality Act 2010) when taking decisions. This, in broad terms, involves understanding the potential impact of policy and decisions on different people, taking this into account and then evidencing how decisions were reached.

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3.3. It is important to note that consideration of the Public Sector Equality Duty is not a one-off task. The duty must be fulfilled before taking a decision, at the time of taking a decision, and after the decision has been taken.

3.4. The protected characteristics are: Age, Disability, Gender reassignment, Pregnancy and maternity, Marriage, and civil partnership (but only in respect of the requirements to have due regard to the need to eliminate discrimination), Race (ethnic or national origins, colour, or nationality), Religion or belief (including lack of belief), Sex, Sexual orientation.

3.5. The Public Sector Equality Duty requires us, in the exercise of all our functions (i.e., everything we do), to have due regard to the need to:

a) eliminate discrimination, harassment and victimisation and other prohibited conduct;

b) advance equality of opportunity between people who share a relevant protected characteristic and persons who do not share it; and

c) foster good relations between people who share a relevant protected characteristic and persons who do not share it.

3.6. Having due regard to the need to advance equality of opportunity between persons who share a relevant protected characteristic and persons who do not share it involves having due regard to the need to:

a) remove or minimise disadvantages suffered by persons who share a relevant protected characteristic where those disadvantages are connected to that characteristic;

b) take steps to meet the needs of persons who share a relevant protected characteristic that are different from the needs of persons who do not share it; and

c) encourage persons who share a relevant protected characteristic to participate in public life or in any other activity in which participation by such persons is disproportionately low.

3.7. The steps involved in meeting the needs of disabled persons that are different from the needs of persons who are not disabled include, in particular, steps to take account of disabled persons' disabilities.

3.8. Having due regard to the need to foster good relations between persons who share a relevant protected characteristic and persons who do not share it involves having due regard to the need to:

a) tackle prejudice; and

b) promote understanding.

3.9. There have been some negative impacts on equality that have been identified within the impact assessment process, by the introduction of a new ICOS. The project team are working with the disability working group, neurodiversity and wellbeing champions to understand these impacts and to work to alleviate/mitigate them.

4. Other considerations

Procurement

4.1. A procurement was initiated utilising the OJEU restricted process. An advert was published on 23 November 2019, with a return date for completed supplier questionnaires of 14 February 2020. 43 expressions of interest were received and by the deadline for responses, ten supplier questionnaires had been received. During the evaluation period one supplier withdrew from the process. All remaining nine suppliers were invited to submit a tender.

4.2. By the deadline for receipt of tenders (3 August 2020), six responses were received. The evaluation is being carried out in two stages.

- Stage one is the evaluation of the method statement and tender. The evaluation consists of mandatory pass/fail criteria in relation to the security of the system. The price element is weighted at 30 percent, the quality element is weighted at 60 percent, and sustainability/social value is weighted at 10 per cent.

- Stage two is the user acceptance testing of the proposed solution and is weighted at 60%. This section includes a presentation and demonstration from the top two scoring suppliers. Members of the evaluation team will then test the system to confirm if it has all the functionalities set out in the user acceptance testing spreadsheet published with the tender documents. The remaining 40% is the score from Stage one of the evaluations.

4.3. When all the evaluations have been completed the scores will be collated and the winning bidder identified. The procurement process has taken longer than initially anticipated however this is due to the additional pressures on both the LFB and the suppliers from the current pandemic. Requests for extensions to the tender deadline were received from suppliers, which were agreed in order to allow sufficient time for them to provide their best possible submission. During the tender process a key member of the project board also retired, and it took some time to replace this resource.

4.4. Opportunities for collaboration were investigated very early on in the project, however none were found since most other Fire Rescue Services at that point in time did not use an incident command system. For those that did, it was discovered that collaboration was still not possible as it was not utilised in the same manner and certainly not to the same scale.

4.5. It was a requirement during the tender process that all bidders submit documentation to show that they are compliant with and have a policy in place that covers modern slavery.

4.6. All bidders were required to show proof at the beginning of the procurement process that they adopted processes and procedures to reduce their environmental impact. This includes certification to independent environmental accreditation scheme such as ISO14001.

4.7. Through use of a cloud based ICOS solution, the LFB is looking at reducing its carbon footprint by:

- training on the new ICOS could be conducted remotely by the ICOS supplier, it will then fall as part of the acquisition training by all personnel who wish to obtain the qualification to ride the command unit by Babcock Training;
- refresher courses will also be programmed within agreed timescales by Babcock Training. Day to day familiarisation will be held at station level by those personnel who are trained to use ICOS; and
- the cloud hosting will reduce the environmental impact of the LFB hosting an ICOS system on its server infrastructure.

5. Financial comments

5.1. This report seeks approval to spend up to £2,500,000 for the procurement of a new ICOS solution to replace the existing CSS. Based on the bids received in the OJEU compliant procurement process, the 10-year contract for the ICOS software and support costs is expected to fall within the £2,500,000 revenue budget that LFC is seeking approval for. The LFC Budget Submission 2021/22 to the Mayor included a growth bid for this from 2022/23, which will be further reviewed and approved as part of the final LFC budget 2021/22 in March 2021. The £2,500,000cost will be contained within that budget.

5.2. LFC further seeks approval to spend the £500,000 for the deployable command unit IT equipment, which is included in the LFC capital programme

5.3. LFC further seeks approval for expenditure on two fixed IT hardware refreshes on the command units and deployable IT hardware in years four and eight of the ICOS contract at approximately £500,000 each, amounting to £1,000,000 in total. This is due to the IT hardware having an anticipated life cycle of four years and therefore needing replacement every four years. These IT hardware refreshes are included in the LFC capital programme.

6. Legal comments

6.1. This report seeks approval of funding for software to replace the existing Command Support System and the associated hardware and hardware refreshes required during the contract term.

6.2. Under section 9 of the Policing and Crime Act 2017, the London Fire Commissioner (the "Commissioner") is established as a corporation sole with the Mayor appointing the occupant of that office.

6.3. Section 1 of the Fire and Rescue Services Act 2004 ('the 2004 Act') states the Commissioner is the fire and rescue authority for Greater London.

6.4. Under section 327D of the GLA Act 1999, as amended by the Policing and Crime Act 2017, the Mayor may issue to the Commissioner specific or general directions as to the manner in which the holder of that office is to exercise his or her functions.

6.5. By direction dated 1 April 2018, the Mayor set out those matters, for which the Commissioner would require the prior approval of either the Mayor or the Deputy Mayor for Fire and Resilience (the "Deputy Mayor"). In particular, paragraph (b) of Part 2 of the said direction requires the Commissioner to seek the prior approval of the Deputy Mayor before "[a] commitment to expenditure (capital or revenue) of £150,000 or above as identified in accordance with normal accounting practices…". The decision to procure new software to replace the existing Command Support System as set out in the recommendation of this report far exceeds this value, therefore, this report to the Deputy Mayor fulfils the aforementioned requirement in the direction.

6.6. Section 7 (2)(a) of the FRSA 2004, requires that the Commissioner must secure the provision of personnel, services and equipment necessary to efficiently meet all normal requirements for firefighting. Section 7(2)(b) of the FRSA 2004 further requires that the Commissioner must secure the provision of training for personnel.

6.7. LFC General Counsel confirms that the procurement of a new software system to replace the existing Command Support System falls within the duties and powers of the Commissioner and is being carried out in compliance with the requirements set out in the Public Contract Regulations 2015 and LFC standing orders.

6.8. The LFB's Procurement Department will be engaged in the tender process for the deployable command unit IT hardware and hardware refreshes as described in paragraphs 2.10 and 2.11 above and will seek advice when required from LFC General Counsel to ensure compliance with the requirements set out in the Public Contract Regulations 2015 and LFC standing orders.

6.9. Following an Equalities Impact Assessment, there are equality implications which need to be mitigated. The LFC's General Counsel's Department further notes that work is ongoing by the project team to establish ways in which these negative impacts can be mitigated.

Appendices and supporting papers:
Appendix 1: LFC-0485 – Incident Command Operating System

Public access to information
Information in this form (Part 1) is subject to the Freedom of Information Act 2000 (FOI Act) and will be made available on the GLA website within one working day of approval.

If immediate publication risks compromising the implementation of the decision (for example, to complete a procurement process), it can be deferred until a specific date. Deferral periods should be kept to the shortest length strictly necessary. **Note**: This form (Part 1) will either be published within one working day after approval or on the defer date.

Part 1 Deferral:
Is the publication of Part 1 of this approval to be deferred? YES
If YES, for what reason: The commercial interests of the London Fire Commissioner require deferral of the decision until after the cooling off period for the contract award has expired.

Until what date: 01 October 2021

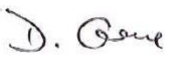
Part 2 Confidentiality: Only the facts or advice considered to be exempt from disclosure under the FOI Act should be in the separate Part 2 form, together with the legal rationale for non-publication.

Is there a part 2 form – NO

ORIGINATING OFFICER DECLARATION:	Drafting officer to confirm the following (✓)
Drafting officer Richard Berry has drafted this report with input from the LFC and in accordance with GLA procedures and confirms the following:	✓
Assistant Director/Head of Service Niran Mothada has reviewed the documentation and is satisfied for it to be referred to the Deputy Mayor for Fire and Resilience for approval.	✓
Advice The Finance and Legal teams have commented on this proposal.	✓
Corporate Investment Board This decision was agreed by the Corporate Investment Board on 15 March 2021.	

EXECUTIVE DIRECTOR, RESOURCES:
I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

Signature



Date
16 March 2021