

REQUEST FOR ASSISTANT DIRECTOR DECISION – ADD2447

Title: GIS Server Restructure – Design & Implementation

Executive Summary:

The GLA develops and hosts bespoke and increasingly complex webmaps and tools along with data feeds that allow other organisations to access our data for their work in a secure and controlled manor. These are used by both professional users and members of the public to explore complex datasets and answer practical or policy questions.

There are over 100 live web applications and the GLA wishes to move from a single large server to a cluster of servers, providing greater resilience and capacity. This contract is for the design and implementation of this new infrastructure.

Decision:

That the Assistant Director of Strategy, Intelligence and Analysis approves:

Expenditure of up to £16,575 for the procurement of consultancy services, purchased through TfL's GIS Applications and Associated Services Framework.

AUTHORISING ASSISTANT DIRECTOR/HEAD OF UNIT

I have reviewed the request and am satisfied it is correct and consistent with the Mayor's plans and priorities.

It has my approval.

Name: Jeremy Skinner

Position: Assistant Director of Strategy, Intelligence and Analysis

Signature:

Approval received via email from Jeremy Skinner, Assistant Director – Strategy, Intelligence and Analysis, to Felicity Harris on 11 May 2020.

Date:

11 May 2020

PART I - NON-CONFIDENTIAL FACTS AND ADVICE

Decision required – supporting report

1. Introduction and background

- 1.1. In recent years the GLA has started delivering several new services that involve providing data or information to a specific group of users. This means data is now core business, instead of being used solely to support service delivery. Traditionally, maps were provided as static images. However, by creating interactive web maps, we can allow users to view particular parts of London in more detail, combine information and answer complex questions. These maps are used by both professional users and members of the public.
- 1.2. Examples of web maps can be viewed at <https://www.london.gov.uk/what-we-do/research-and-analysis/webmaps-and-tools>. They include the Schools Atlas which supports school place planning, the Air Quality map which brings the Mayor's air quality programmes together into one place and the Rents map which helps Londoners find the most affordable areas.
- 1.3. The GLA also shares data directly through data feeds with partner organisations (for instance, TfL and the London Boroughs) or innovators (for instance, plantech companies using planning data). This is a growing area of work and replaces the need to send files manually, as well as ensuring that subscribers are always able to see the most recent version of a given data set.
- 1.4. Both the maps and data feeds rely on a GIS server (Geographic Information Systems). Since the current GIS server was built four years ago, the demand for the services has increased and greater number of GLA projects now rely on this server for daily delivery.
- 1.5. This decision form is therefore seeking approval for expenditure to build a connected cluster of servers to replace the current single large server in line with the approach taken for managing the Mayor's website (london.gov.uk) and other important infrastructure.
- 1.6. The work will be carried out by a team of specialists from ESRI (UK), with the support of the GLA's GIS team and officers from the Technology Group. The technical details of the work were specified during a Solution Design Review, also carried out by ESRI (UK) in March 2020 and subject of a Delegated Authority Record for £3,225.

2. Objectives and expected outcomes

- 2.1. The new server cluster will have the following benefits over the current single server:
 - provides greater resilience as there will no longer be a single point of failure;
 - will provide additional capacity (for more maps and data feeds);
 - will be able to temporarily 'scale' to meet short-term peaks in demand (for instance, following a press release or coverage in the national media); and
 - using the latest versions of both open-source and ESRI software will support flexibility and innovation by GLA offices.
- 2.2. The expected outcome is that a new operational, tested cluster of servers will be available (running in parallel with the current live server), ready for GLA officers to begin migration of maps and data feeds.

3. Equality comments

- 3.1. Under section 149 of the Equality Act 2010, as public authorities, the Mayor and the GLA are subject to a Public Sector Equality Duty and must have 'due regard' to the need to (i) eliminate unlawful discrimination, harassment and victimisation; (ii) advance equality of opportunity between people who

share a relevant protected characteristic and those who do not; and (iii) foster good relations between people who share a relevant protected characteristic and those who do not. Protected characteristics under section 149 of the Equality Act are age, disability, gender re-assignment, pregnancy and maternity, religion or belief, sex, sexual orientation, and marriage or civil partnership status (all except the last being 'relevant' protected characteristics).

- 3.2. Provisions for compliance with the Public Sector Equality Duty were included in the procurement process.
- 3.3. Internally, the project is unlikely to have any difference in impact on any persons resulting from a protected characteristic. The change as a result of this procurement day to day will be to business processes, where matters are managed through HR policies to ensure no adverse impact on any person with protected characteristics is created.
- 3.4. Externally, the GLA will continue to have due regard to its Public Sector Equality duties in all work that is carried out using the server cluster. Overall, no adverse impacts have been identified as a result of entering into a contract for services with ESRI (UK) for building the server cluster.
- 3.5. The increased capacity and flexibility from the implementation of this project will ensure more transparency in the Mayor's Strategies, making data and maps more accessible and searchable. New web maps will be developed and tested in accordance with the new GLA accessibility requirements which will ensure that there is no adverse impact on any person (with or without a protected characteristic). The analysis and interactive maps created with the software will support the Mayor's programmes to reduce inequality in London including the Rough Sleepers map, London Rent map and High Streets for All. GIS services are also an important part of the COVID-19 response to identify and support vulnerable groups.

4. Other considerations

Key risks and issues

- 4.1. There is a risk that having procured the consultant time that it is no longer needed. This is mitigated by having a time and materials engagement, whereby the GLA will only be charged for the work required.
- 4.2. There is a risk of interruption to live maps and services during the build. This is mitigated by building an entire system in parallel and having a program of gradual migration one map at a time.

Links to Mayoral strategies and priorities

- 4.3. The GIS server infrastructure forms part of a fundamental technology platform for a number of high-profile projects, including the London Situational Awareness Team, London Development Database, Environment Strategy (including green infrastructure, flexible energy / heat grids, sustainable urban drainage) and Cultural Infrastructure Plan
- 4.4. The sharing of datasets through data feeds fulfils actions from the Chief Digital Officer's Smarter London Together Roadmap

Consultation and impact assessments

- 4.5. GLA officers have consulted with colleagues in the relevant departments, including Planning, Environment, Regeneration and the Technology Group to identify the requirements for the server cluster.
- 4.6. The project does not process personal data and so does not fall under GDPR or require a Data Protection Impact Assessment.
- 4.7. GLA officers involved in the drafting or clearance of this form do not have any conflicts of interest to declare.

5. Financial comments

- 5.1 Approval is sought for expenditure of up to £17,000 for the procurement of consultancy services for the restructure of the GIS Server.
- 5.2 The expenditure will be funded from the 2020-21 City data & GIS Team's budget held within the City Intelligence Unit.

6. Planned delivery approach and next steps

Activity	Timeline
Procurement of Contract [for externally-delivered projects]	Jan 2020
Delivery Start Date [for project proposals]	April 2020
Complete Installation	Start + 2 weeks
Migration and Support	Start + 4 weeks
Delivery End Date [for project proposals]	May 2020

Appendices and supporting papers:

None.

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 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 it has been approved or on the defer date.

Part 1 - Deferral

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

If YES, for what reason:

Until what date: (a date is required if deferring)

Part 2 – Sensitive information

Only the facts or advice that would be exempt from disclosure under FoIA should be included 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:

Paul Hodgson has drafted this report in accordance with GLA procedures and confirms the following:

✓

Corporate Investment Board

This decision was agreed by the Corporate Investment Board on 4 May 2020.

ASSISTANT DIRECTOR OF FINANCE AND GOVERNANCE:

I confirm that financial and legal implications have been appropriately considered in the preparation of this report.

Signature



Date

11 May 2020