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Award

Connect Radio and Transmission Services Contract: RON Variation

Transport for London

F15: Voluntary ex ante transparency notice
Notice identifier: 2023/S 000-027355
Procurement identifier (OCID): ocds-h6vhtk-03fd18
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Section I: Contracting authority/entity

I.1) Name and addresses

Transport for London

5 ENDEAVOUR SQUARE

LONDON

E201JN

Contact

Richard Taylor

Email

RichardTaylor@tfl.gov.uk

Telephone

+44 7725610030

Country

United Kingdom

Region code

UKI - London

Justification for not providing organisation identifier

Not on any register

Internet address(es)

Main address

http://www.tfl.gov.uk

I.4) Type of the contracting authority

Regional or local authority

I.5) Main activity

Other activity

Urban Railway Services

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Connect Radio and Transmission Services Contract: RON Variation

II.1.2) Main CPV code

- 50330000 - Maintenance services of telecommunications equipment

II.1.3) Type of contract

Services

II.1.4) Short description

LUL and Citylink Telecommunications Limited (CTL) entered into a 20-year PFI contract on 19 November 1999 (Connect PFI Contract) for a digital radio and transmission system (Connect System).

In 2018, LUL entered into a contract with Ground Transportation Systems UK Limited (GTS) (f.k.a. Thales Transport and Security Limited), a CTL shareholder, for continuation of the Connect Services after 2019 (GTS Contract).

TfL now wishes to (a) engage GTS to renew the existing data transmission networks to deliver a single multi-service network (called MSN2) (Renewed Operating Network or RON) under the GTS Contract (Proposed RON Appointment) and (b) extend the term of the GTS Contract for 12 months beyond its current anticipated expiry on 21 November 2026 (with an option for further extensions of up to 2 years) (Proposed RON Extension)(collectively, the Proposed RON Variation).

As explained at II.2.4 and IV.1.1, LUL considers that the Proposed RON Variation is permitted under Reg. 88 of the Utilities Contracts Regulations 2016 (UCR).

TfL intends, and is already in the process of preparing, to re-procure the management of the Connect System competitively upon the expiry of the GTS Contract as varied by the Proposed RON Variation. TfL considers that implementation of the Proposed RON Variation, as described below, will enable it to hold a more attractive and more effective competition for the management of the Connect System after expiry of the GTS Contract.

II.1.6) Information about lots

This contract is divided into lots: No

II.1.7) Total value of the procurement (excluding VAT)

Value excluding VAT: £192,000,000

II.2) Description

II.2.2) Additional CPV code(s)

- 32230000 - Radio transmission apparatus with reception apparatus
- 32412100 - Telecommunications network
- 32418000 - Radio network
- 50330000 - Maintenance services of telecommunications equipment
- 64200000 - Telecommunications services

II.2.3) Place of performance

NUTS codes

- UKI - London

II.2.4) Description of the procurement

The Connect System uses digital terrestrial trunked radio (TETRA) technology which, alongside other features, is highly reliable and ensures security and confidentiality of operational communications.

The Connect System is critical to the operation of the LU railway, as it provides:

(a) mission-critical voice radio between LUL control centres and train drivers;

(b) mission-critical voice and safety alarms for train drivers and other railway staff;

(c) fixed cable voice and data connections between stations; and

(d) other signalling links and other links for a range of operational railway applications.

GTS is responsible for the operation and maintenance of the Connect System. The TETRA

radio system used for the Connect System was supplied by Motorola, using its Dimetra product, and is supported and maintained by Motorola as a contractor to GTS. The Connect System also comprises other elements of hardware and software, including both commercial off-the-shelf products and bespoke equipment or software designed specifically for the Connect System.

The data transmission networks used in the Connect System include: a multi-services network (MSN) carrying IP-based applications, including radio data traffic, a data network based on asynchronous transfer mode transmission (ATM) carrying the CCTV data, and a data network based on synchronous digital hierarchy transmission (SDH) carrying various types of data such as telephone voice and text, radio data traffic and customer service information. These three data transmission networks are based on legacy technology. They have already, or are about to, become obsolete, meaning that it will no longer be possible to secure spares and the associated equipment and software ceases to be patchable or upgradeable. This obsolescence introduces risks which LUL has concluded must be mitigated given the operationally critical nature of the Connect System.

TfL needs to address the obsolescence of the legacy data transmission networks, following its decision to continue to use the TETRA radio system until the mid-2030s, because the TETRA radio system requires a modern data transmission network with adequate bandwidth. That recent decision was based on TfL's own analysis and that of external consultants, which concluded that the alternatives to TETRA radio will not become available until the late 2020s and that, even after alternatives become available, TfL would need a number of years to migrate to the alternatives and mitigate the associated transitional risk.

The GTS Contract contemplates some upgrades of the legacy data transmission networks as part of the pre-agreed upgrade works, as further detailed at paragraph Section VI below: however, such currently contemplated upgrade work is insufficient to mitigate these obsolescence risks.

Therefore, to address the obsolescence of the legacy data transmission networks, TfL now wishes to carry out a renewal of the existing data transfer networks to deliver a consolidated multi-services network for the transmission of data between London underground sites (including stations, depots and control centres) (the MSN2 network). The renewed data transfer network will be constituted by a combination of existing, upgraded and refreshed network assets. This will require GTS to work with TfL, and with GTS' sub-contractors, to design, develop, build, migrate, commission and manage the Renewed Operating Network (RON) works to deliver the MSN2 network.

By carrying out the RON works, TfL will be delivering on its established strategy of, wherever possible, adopting a multi-service approach, minimising the number of data networks it uses and ensuring that these data networks are designed and built so as to support multiple different use cases and have a much wider utility to TfL, both now and in future. The RON works are required to achieve this objective.

Another important reason to carry out the RON works at this time is to ensure that upon expiry of the GTS Contract, LUL will have a more modern, functioning data network asset that is in-support. This will help TfL to re-procure the services to manage the associated assets after the expiry of the GTS Contract.

TfL now wishes to (a) engage GTS to design, develop, build, migrate, commission and manage the RON work under the umbrella of the GTS Contract (Proposed RON Appointment) and (b) extend the term of the GTS Contract for 12 months beyond its current anticipated expiry on 21 November 2026 (with an option for further extensions of up to 2 years) to allow sufficient time for the delivery of the RON works (Proposed RON Extension) without first holding a new competitive bidding process. TfL wishes to implement the Proposed RON Appointment and the Proposed RON Extension as a single variation under the GTS Contract (collectively, the Proposed RON Variation).

GTS has carried out a competitive procurement for all additional third-party equipment and support services required to deliver the RON works. GTS has reported to TfL on a transparent basis in relation to that procurement and GTS's proposed award of the contracts for the purchase of that equipment and support.

Finally, TfL intends, and is already in the process of preparing, to re-procure the management of the Connect System competitively upon the expiry of the GTS Contract as varied by the Proposed RON Variation. TfL considers that implementation of the Proposed RON Variation, as described above, will enable it to hold a more attractive and more effective competition for the management of the Connect System after expiry of the GTS Contract.

II.2.11) Information about options

Options: Yes

Description of options

There is an option to extend the term of the GTS Contract (as varied by the Proposed RON Extension) by further extensions of up to 2 years which, if exercised, would give a maximum expiry date of 21 November 2029.

Section IV. Procedure

IV.1) Description

IV.1.1) Type of procedure

Award of a contract without prior publication of a call for competition in the cases listed below

- The procurement falls outside the scope of application of the regulations

Explanation:

TfL considers that the Proposed RON Variation would not be a substantial modification of the GTS Contract, as Schedule 2.7 of the GTS Contract already provides for several upgrade projects to be undertaken by GTS on the legacy MSN system, some of which overlap with the RON work.

Even if the Proposed RON Variation were a substantial modification, TfL considers that the exemption in Regulation 88(1)(b) UCR would apply, for the following reasons.

The RON works have become necessary

The RON works have become necessary because of the obsolescence issues with the existing three data networks (MSN, ATM and SDH) used by Connect. As explained in section II.2.4 above, these three legacy networks have already, or are about to, become obsolete, meaning that it will no longer be possible to secure spares and the associated equipment, and that software ceases to be patchable or upgradeable. This obsolescence introduces risks which LUL has concluded must be mitigated by the RON works, given the operationally critical nature of the Connect System.

The RON works are also necessary to implement TfL's strategy of minimising the number of data networks deployed (thereby simplifying the support model) and, wherever possible, implementing data networks which can securely support multiple different uses, such as CCTV, signalling, Wi-Fi, etc. RON will achieve this by replacing the 3 legacy data networks under the Connect System (MSN, ATM and SDH) with one new data network which has much wider utility to TfL.

The additional 12 months of the Proposed RON Extension have become necessary to allow for the completion of the RON works, plus a reasonable period of transition thereafter.

A change of contractor cannot be made for technical reasons

There are technical reasons why a change of contractor cannot be made: these are set out at VI.3 below. These factors demonstrate that engaging a new third party contractor to carry out the RON work would cause significant inconvenience and risk to TfL. A complex and costly interface would have to be put in place between the third party and GTS, which would be difficult for TfL to manage and would introduce new operational and network performance risks to the operation of the Connect System. Furthermore, any third party engaged to deliver the RON works would be interfering with a live network, creating additional operational risks.

A change of contractor cannot be made for economic reasons

There are also economic reasons why the RON works must be completed by GTS. Retaining GTS avoids the cost and complexity of managing the interface between GTS, in its role as operator, and any new contractor engaged to do the RON works. GTS' existing supply chains will allow it to upgrade the Connect infrastructure more cost-effectively than a third party. In relation to the additional operational and network performance risks resulting from the introduction of a new contractor for the RON works, which would need to be managed by GTS and the new contractor, GTS and the new contractor would be likely to charge TfL more for agreeing to take on such risks. Also, utilising GTS' existing facilities and management resources will minimise costs and overheads.

A change of contractor would cause significant inconvenience and duplication of costs for TfL

Contracting RON via a third party would also likely introduce significant programme risk, due to the inclusion of the associated procurement period, and the complexities of acceptance and handover into maintenance, prior to establishing a migration programme. Any delays to rolling out RON would be detrimental to TfL because it would need to continue to rely on obsolete network equipment which becomes increasingly hard to maintain, resulting in operational risk and significant additional costs. Such delays would also be likely to delay TfL's re-procurement of services for the management of the Connect System.

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: No

Section V. Award of contract/concession

A contract/lot is awarded: Yes

V.2) Award of contract/concession

V.2.1) Date of conclusion of the contract

4 September 2023

V.2.2) Information about tenders

The contract has been awarded to a group of economic operators: No

V.2.3) Name and address of the contractor/concessionaire

GROUND TRANSPORTATION SYSTEMS UK LIMITED

350 Longwater Avenue, Green Park

Reading

RG2 6GF

Country

United Kingdom

NUTS code

- UK - United Kingdom

Companies House

Company number 03132438

The contractor/concessionaire is an SME

No

V.2.4) Information on value of contract/lot/concession (excluding VAT)

Initial estimated total value of the contract/lot/concession: £192,000,000

Total value of the contract/lot/concession: £192,000,000

V.2.5) Information about subcontracting

The contract/lot/concession is likely to be subcontracted

Value or proportion likely to be subcontracted to third parties

Value excluding VAT: £62,400,000

Proportion: 32 %

Short description of the part of the contract to be subcontracted

GTS proposes to engage relevant subcontractors to provide equipment and technical support for the RON. GTS identified a set of work packages (listed below) it wished to subcontract based on the scope of each activity and the expertise and experience necessary for the delivery of those activities as part of the RON:

(a) IP MPLS Network;

(b) DWDM Equipment;

(c) IT Hardware & Software;

(d) Electro-Mechanical Equipment;

(e) CCTV Equipment and Video Management;

(f) Warehousing and Logistics;

(g) Installation Labour; and

(h) Design Services.

GTS conducted competitive procurement processes for these work packages, resulting in some of these work packages being due to be performed by new subcontractors (including key subcontractors) who were not engaged under the scope of the original GTS Contract or Connect Contract. Those subcontractors will be engaged and managed by GTS in accordance with the subcontracting regime in the Connect Contract (in line with the approach to the existing services and activities under that contract). GTS selected the subcontractors for each work package on the basis of alignment with appropriate industry standard products from suppliers with a technology roadmap and commercial commitment to support the RON works, with a consolidated delivery regime in order to drive operational

and economic efficiencies in the RON project. For key technologies, (such as the IP MPLS Network), GTS directly engages the subcontractors for the purpose of the RON project, with those subcontracts incorporating certain flow down terms from the Connect Contract. For other subcontractors, GTS engages those subcontractors as a systems integrator and using GTS's organisation-wide contracting arrangements (which may not include the same level of flow-downs).

The Connect Contract imposes a number of obligations on GTS to engage and manage the subcontractors properly for the duration of the GTS Contract (including the Proposed RON Extension), including certain rights for LUL or successor operators to preserve service delivery and continuity in the event that GTS were to be replaced or removed from future procurement activities.

The existing subcontractors under the GTS Contract are expected to continue providing relevant services in relation to ongoing technology delivery and support activities for the Connect System, including Motorola's provision of and support for the Dimetra products described above.

Additionally, certain subcontracts include the right to procure, and an obligation for the subcontractor to deliver, the relevant products and services from that subcontractor after the expiry of the Proposed RON extension (including by way of novation of such subcontracts to LUL/TfL).

Section VI. Complementary information

VI.3) Additional information

Technical reasons why a change of contractor cannot be made:

GTS knows best how to operate and maintain the Connect System to proper service levels, both before and during the deployment of RON and the migration of services to the new data transmission network.

Engaging a third party to deliver RON would create technical interface issues as a result of replacing or reusing equipment and infrastructure and migrating old networks onto the new RON network. GTS would be best placed to minimise such issues because of its familiarity with the current networks.

TfL believes that third parties are more likely to want to take on the new RON data network after it has been built and has been operational for a period of time, as it will then have proven stability and can be effectively supported. This is a relevant consideration for the re-procurement of the services to manage the Connect System after expiry of the GTS Contract. The success of the future competition (including enabling a level of market appetite that drives the competitive tension and best value for money) is best served by decoupling the deployment, migration and initial operation of RON from future stabilised operations.

Contracting RON directly with GTS as the existing Connect System O&M contractor has a number of technical advantages, including:

(i) ensuring that handover into Connect System O&M will be commercially and technically seamless;

(ii) aligning and initiating the programming of the migration of services with the existing O&M obsolescence plan;

(iii) integrating migration resource scheduling into the delivery programme and ensuring availability at the point those resources are required, which will enable more efficient and effective service migration.

(iv) adequate management of the associated technical risks of not meeting the legacy performance specifications as they would remain with GTS until service migration, including the following risks:

(1) interfacing and interoperability with legacy Connect System infrastructure and assets including stage works necessary to facilitate implementation and migration;

(2) interfacing and interoperability with LUL systems and end user equipment;

(3) incorporation of technical change introduced by ongoing variations to the legacy data networks into the new RON network and refreshed solution, such as PLU integration - NTP, PKI and RADIUS services; and

(4) ongoing management and support of Airwave backhaul services (whilst required);

(v) managing the risks associated with significant increases in the volume of assets requiring support and service during RON infrastructure roll-out. For a period of time, there will be both legacy equipment and new RON equipment operating side-by-side in parts of the data network and almost certainly some connectivity that utilises both legacy equipment and new RON equipment to deliver end user service. This risk is best managed by GTS, as the existing O&M contractor for the Connect System;

(vi) GTS being uniquely able to provide a contiguous single point ("one stop") fault management for services provided across the networks and broader estate. This will eliminate interface risk and multiple maintainer impact on service levels; and

(vii) GTS being best-placed to manage decommissioned assets into spares, to sustain legacy systems and to reduce any wastage. A key concept of the RON renewal and upgrade strategy is to maximise the reuse of existing Connect System infrastructure and assets, and thus minimise the requirement for additional TfL-funded enabling works, which would introduce significant associated cost and schedule impact. The existing O&M contractor, GTS, is best suited to manage this risk, as it is the custodian of the most up to date as-built records and effectively manages change control on the operational-critical Connect System.

VI.4) Procedures for review

VI.4.1) Review body

High Court (England, Wales and Northern Ireland)

London

Country

United Kingdom