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Planning

North and East Digital Twin

NETWORK RAIL INFRASTRUCTURE LIMITED

UK2: Preliminary market engagement notice - Procurement Act 2023 - view information about notice types

Notice identifier: 2025/S 000-072155

Procurement identifier (OCID): ocds-h6vhtk-05d4ed

Published 7 November 2025, 3:55pm

Changes to notice

This notice has been edited. The previous version is still available.

Thank you for your interest in the North and East Digital Twin market engagement.

Please be advised that we are temporarily pausing the Pre-Market Engagement (PME) activity while we carry out some internal investigations. The engagement will recommence at a later date, and we will provide further updates as soon as possible.

During this pause:

No further actions are required from your side at this stage.

All previously submitted responses remain valid and will be considered when the engagement resumes.

We appreciate your understanding and cooperation. If you have any questions, please contact humza.tayyab@networkrail.co.uk.

Scope

Description

Network Rail's North and East Route intends to procure a proven, commercially available Software as a Service (SaaS) digital twin platform to support rail asset management. The aim is to aggregate disparate data sources into a single, user-friendly interface, enabling multi-discipline collaboration and supporting a more predictive, data-driven approach to maintaining the railway infrastructure.

The procurement will cover:

A web-based digital twin SaaS solution capable of visualising geospatial asset data, integrating real-time and historic data from sensors, condition monitoring devices, and IoT sources, and supporting advanced analytics such as asset health modelling, degradation prediction, and intervention planning.

Development of application programming interfaces (APIs) and associated data management solutions to enable secure, scalable integration with existing Network Rail systems, ensuring data longevity and interoperability.

Hosting and security: The solution should be hosted on a UK-based cloud service, preferably within Network Rail's Azure environment, and support Microsoft Entra single sign-on (SSO). Compliance with Network Rail's information and cyber security standards, as well as relevant industry standards (e.g., ISO 27001, GDPR), is mandatory.

User access: The platform must allow access for all Network Rail staff and authorised contractors at no additional cost, with robust user management and permissions.

Technical support and service levels: The supplier will be required to provide technical support, defined response times for outages, and ensure system performance meets agreed loading times.

The solution should be modular, allowing Network Rail to select features as required, and support an unlimited number of users on a monthly subscription basis. Suppliers are encouraged to demonstrate the full capabilities of their solutions, even if not all

requirements are met, and to propose cost-effective approaches, particularly where hosting is on Network Rail's Azure environment.

Total value (estimated)

- £2,250,000 excluding VAT

- £2,700,000 including VAT

Above the relevant threshold

Contract dates (estimated)

- 3 August 2026 to 2 August 2029

- Possible extension to 28 August 2031

- 5 years, 26 days

Main procurement category

Services

CPV classifications

- 72000000 - IT services: consulting, software development, Internet and support

- 72212100 - Industry specific software development services

- 72212461 - Analytical or scientific software development services

- 72212300 - Document creation, drawing, imaging, scheduling and productivity software development services

- 72222300 - Information technology services

- 72212600 - Database and operating software development services

- 72514000 - Computer facilities management services

- 71354100 - Digital mapping services

- 72322000 - Data management services

- 72212200 - Networking, Internet and intranet software development services

- 72212211 - Platform interconnectivity software development services

- 72320000 - Database services

Engagement

Engagement deadline

9 December 2025

Engagement process description

Responding to this Notice is an excellent opportunity to engage, share relevant information and provide feedback. Should you wish to respond to this Notice please follow the instructions below:

1) Accessing the documents:

a. Follow the link: https://networkrail.bravosolution.co.uk/web/login.html

b. From the welcome screen, access the "View Current Opportunities" link and select "North and East Digital Twin". Login is not required.

c. The released documents will be at the bottom of the page in the attachments section.

2) Suppliers are requested to review the draft requirements and prepare a proposal document that addresses all the elements of the requirements document, and how your

solution demonstrates meeting those, including but not limited to:

a. Demonstration of capability

b. Implementation of data architecture

c. Cyber security compliance

d. Testimonials from clients

e. Indicative costs

i. Licensing model (including support) aligned to the requirements document

1. Providing a breakdown of costs against capabilities.

ii. Implementation

iii. Reduced costs where the solution is hosted on Network Rail Azure

f. Note: While a supplier's product may not meet every requirement, it is essential to have a clear understanding of its full capabilities.

3) All supplier proposals should be emailed to Humza Tayyab (Humza.Tayyab@networkrail.co.uk) no later than Tuesday, 9th December 2025 at 17:00hrs.

Any questions or clarifications in respect of this notice, should only be addressed to Humza.Tayyab@networkrail.co.uk.

Network Rail would like to thank you in advance should you wish to respond to this Notice. Upon receiving your completed proposal, we will review all responses and may contact you for further information if necessary.

Participation

Particular suitability

- Small and medium-sized enterprises (SME)

- Voluntary, community and social enterprises (VCSE)

Procedure

Special regime

Utilities

Contracting authority

NETWORK RAIL INFRASTRUCTURE LIMITED

- Public Procurement Organisation Number: PNZN-9524-VCQJ

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Organisation type: Public authority - central government