JOB DESCRIPTION

Job Title	: TVS SNSDE Technical Lead
Base	: Big Data Institute, Oxford
Grade	: Band 8c
Hours of work	: 37.5
Directorate	: Digital
Responsible to	: TVS SNSDE Programme Director
Accountable to	: Chief Digital and Partnerships Officer
Details of special conditions	: 2-year fixed term contract

Job Summary:

We are seeking an experienced specialist with talent, expertise, and ambition in technical leadership. We can offer the opportunity to work on innovative solutions that will transform scientific research and healthcare delivery in the NHS.

The successful candidate will work as part of the Thames Valley and Surrey (TVS) Sub National Secure Data Environment (SNSDE) Programme hosted by Oxford University Hospitals NHS Foundation Trust (OUH). They will take responsibility for the design and implementation of systems for data acquisition, integration, and analysis across a wide range of clinical systems and settings for this important national programme, led by NHS England's Data for R&D Programme.

The tools and services they lead on the development of will have a significant impact on the delivery of this programme. Working with academic and NHS colleagues across the Thames Valley and Surrey region, the post holders will have the satisfaction of seeing their software and data management systems in use: improving patient care and supporting cutting-edge research.

Main Tasks and Responsibilities

The successful candidate will have strategic operational responsibility for the technical design, build, testing, operation, and evolution of the TVS SNSDE. This involves overseeing the technical teams, associated technologies and platforms, the data assets, and research activity. They must be highly skilled in the design, commissioning and operation of on-premises and cloud technologies supporting research activity. Responsibilities include cost management, cybersecurity, data integration and interoperability, and alignment with quality standards, information governance legislative frameworks, research ethics frameworks, and regulatory (eg MHRA) frameworks. They must have extensive experience with local and cloud-based infrastructure supporting data research activities; with leading a matrix of technical teams delivering complex high profile technical projects at local, regional, and national levels; and with the curation of large structured and unstructured data sets.

Working as part of the OUH R&D Clinical Informatics team, the successful candidate will:

Leadership

- Lead the design, build, testing, operation, and development of the TVS SNSDE platform and be responsible and accountable for day-to-day platform operations.

Learning, Respect, Delivery, Excellence, Compassion, Improvement

- Ensuring technical design and interoperability alignment with other related health data research platforms.

- Lead on the integration of local and regional health data for the purposes of the SNSDE programme, and the technical design in support of national health data for research federation.

- Be responsible and accountable for data asset curation information governance, cybersecurity and privacy enhancing/preserving processes and procedures.

- Devise and curate the technical strategy for research data retention in line with regulatory requirements and/or national policy.

- Be responsible for convening and leading a technical team under matrix management arrangements comprising technical experts, data integration specialists, commercial suppliers, the Data for R&D programme team, NHS England's Digital and Improvement functions, and other relevant stakeholders.

- Act as a central role bringing together key stakeholders from across the region to ensure optimised and effective use of investment in the TVS SNSDE programme.

- Provide the day-to-day management and leadership of the technical team and lead on recruitment processes for technical staff.

- Manage the delivery of training on a range of specialist information technical subjects, working to upskill new and existing staff members and other colleagues across the SNSDE network, and deliver training, support and senior mentorship where expert knowledge is required.

- Take budgetary and financial management responsibility with a delegated limited for technical assets, delegating to team members as appropriate, and for expenses where required.

- Identify and propose changes to relevant policies and the development of the service as they arise, including those that may affect the whole network of SNSDEs or national policies and service expectations.

- Chair technical group meetings and represent the programme at local, regional and national committees and meetings as appropriate.

- Develop and maintain relationships at a senior level with key internal and external stakeholders across the region and the SNSDE network.

- Support the administrative functions of the programme's management, processes, and governance structures.

- Participate in promoting the work of the TVS SNSDE in local and national networks in a wide variety of settings encompassing a variety of healthcare, research, policy and informatics professionals.

Management

- Devise, deliver and maintain the TVS SNSDE technical strategy, and curate the local and regional technical strategy for national federation.

- Forecast and align operational demand and capacity, ensuring forward plans are clearly costed and communicated, and prepare platform activity and capacity forecasts.

- Oversee and manage the performance of external suppliers and work with them in a professional manner, ensuring that all interactions and collaborations are completed in line with all contractual processes to summarise research performance and highlighting exceptional areas where management action is required.

Learning, Respect, Delivery, Excellence, Compassion, Improvement

- Take responsibility for platform cost consumption, ensuring transparency and value for money and continually identify cost improvement optimisation opportunities.

- Work with key stakeholders across the region and external suppliers to develop cost tracking tooling and jointly oversee consumption.

- Obtain, curate and present performance and cost management information that enables advanced monitoring of all platform activity.

- Collate, curate and disseminate cost management and demand / capacity forecast information for consumption and presentation.

Technical

- Develop, implement and maintain a quality assurance/quality control process.

- Lead on the development, implementation, curation, and auditing of technical documentation and standard operating procedures (SOP's) for platform operations and research activities

- Take accountability for the performance of the research platform infrastructure.

- Lead on systems interoperability and integration activities, including taking responsibility for the agreement, adoption, and implementation of interoperability standards and data integration between systems, organisations, and regions.

- Develop an understanding of the interoperability industry landscape and options available.

- Lead the platform security strategy, ensuring continuing compliance with best-practice cybersecurity standards and policies and the delivery of proactive security controls, including scanning and penetration testing.

- Lead the development of systems and processes to monitor all data flows into and out of the TVS SNSDE.

- Recommend, configure and operate appropriate security tooling and ensure the TVS SNSDE is patched to the latest security standards.

- Develop, maintain and oversee the operation of key processes such as user identity management, incident response, disaster recovery, risk and quality management as appropriate in line with existing and emerging policies and procedures

- Responsible for alignment with information governance principles including GDPR and other key frameworks ensuring fair, transparent, and lawful processing of data

Organisational

- Maintain confidentiality of health and other operational data and compliance with relevant NHS, clinical, and information governance standards.

- Be accountable for professional conduct, complying with the trust's policies and procedures, and undertaking other duties as required by the Programme Director.

- Be required to produce precise and accurate work, maintaining concentration for significant periods of time, with extended concentration required for complex problem solving, and be able to work with a moderate level of emotional effort that comes with working with real world patient data.

- Interpret technical/professional/administrative IM&T policies, advising the programme on how these should be interpreted, with an ongoing requirement to act with minimum guidelines setting standards for others in the team and across the SNSDE network.

Learning, Respect, Delivery, Excellence, Compassion, Improvement

Effort

- Lead the development of complex software and/or data engineering solutions. This is a significant aspect of this role, requiring sustained focus and attention.

- Work effectively in a fast-paced environment with frequent interruptions, often answering questions and providing advice to colleagues.

- Be able to work under pressure and meet ever changing prioritises and deadlines.

- The post holder may occasionally be exposed to distressing or emotional circumstances, for example dealing with staff conflict. They will also be working with patient information on a more regular basis, which can be emotionally challenging.

General Conditions

Risk Management

The management of risk is the responsibility of everyone and will be achieved within a progressive, honest and open environment.

Staff will be provided with the necessary education, training and support to enable them to meet this responsibility.

Staff should be familiar with the

- Major Incident Policy
- Fire Policy
- Information governance

and should make themselves familiar with the 'local response' plan and **their** role within that response.

Responsibilities for Health and Safety

The post holder is responsible for ensuring that all duties and responsibilities of this post are carried out in compliance with the Health & Safety at Work Act 1974, Statutory Regulations and Trust Policies and Procedures. This will be supported by the provision of training and specialist advice where required.

Infection Control

Infection Control is everyone's responsibility. All staff, both clinical and non-clinical, are required to adhere to the Trusts' Infection Prevention and Control Policies and make every effort to maintain high standards of infection control at all times thereby reducing the burden of Healthcare Associated Infections including MRSA.

All staff employed by OUH have the following key responsibilities:

- Staff must wash their hands or use alcohol gel on entry and exit from all clinical areas and/or between each patient contact.
- Staff members have a duty to attend mandatory infection control training provided for them by the Trust.
- Staff members who develop an infection (other than common colds and illness) that may be transmittable to patients have a duty to contact Occupational Health.

Child Protection

The post holder will endeavour at all times to uphold the rights of children and young people in accordance with the UN Convention Rights of the Child.

Safeguarding Children and Vulnerable Adults

The Trust is committed to safeguarding children and vulnerable adults throughout the organisation. As a member of the trust there is a duty to assist in protecting patients and their families from any form of harm when they are vulnerable.

Information Governance

All staff must complete annual information governance training. If you have a Trust email account this can be completed on-line, otherwise you must attend a classroom session. For further details, go to the Information Governance intranet site.

Data Quality

Data quality is a vital element of every member of staff's job role. Oxford University Hospitals recognises the importance of information in the provision of patient care and in reporting on its performance. Data quality is therefore crucial in ensuring complete, timely and accurate information is available in support of patient care, clinical governance, performance management, service planning, and financial and resource planning and performance.

All staff should ensure that they have read and understood the Trust's Data Quality Policy.

PERSON SPECIFICATION

Job Title: Technical Lead

	Essential	**Desirable**
Qualifications	Expert knowledge of software and data engineering acquired through a combination of specialist training and relevant study (eg computer science, software engineering, mathematics) to Master's degree or equivalent level Extensive experience within a complex and demanding environment	Extensive, relevant professional experience may be considered against the requirement for a degree in computer science or a related discipline (the expectation of professional, technical competence is at least that associated with a degree level education in this subject) Project/Programme management qualifications (eg PRINCE2, Agile, MSP, ITIL, BCS)
Experience - management	Demonstrable experience of working and leading in a technical environment, ideally within a clinical or healthcare setting A strong track record of achievement in data engineering or software development Extensive experience leading and delivering large technical projects locally, regionally, and nationally, ideally within the NHS Knowledge of research information governance frameworks and legislation Knowledge of NHS datasets and standards Extensive experience with infrastructure, software and data lifecycles with specialist knowledge acquired through relevant qualifications including waterfall and agile project methodologies Experience of establishing, managing, and developing technical teams Knowledge of Change Management principles and processes	Evidence of innovation in managerial and service terms Leading and delivering national and regional NHS projects Management Information Systems (MIS) to communicate and drive operational performance improvement Being a budget holder or/responsible for budget setting or budget constrained delivery of a service

Learning, Respect, Delivery, Excellence, Compassion, Improvement

	Essential	Desirable
	Knowledge of quality control and quality assurance principles and processes	
	Knowledge of Clinical Governance and Risk Management	
	Experience of managing staff	
	Evidence of successfully leading, driving and embedding change	
	Track record of delivering enhanced operational capability or efficiency and a cultural shift in customer focus	
	Experience of identifying, assessing and implementing business opportunities	
	Experience in identifying innovative technologies that can transform the operational capability of a clinical organisation	
Experience - technical	Professional and advanced specialist knowledge of technical research platforms underpinned by extensive experience working in senior technical roles	Cross-platform resource scripting and deployment automation
	Experience designing and managing cloud platform infrastructure	Experience with genomics datasets
	Experience curating research data assets including the application of privacy preserving processes/technologies	Platforms such as Microsoft Azure, Amazon AWS, Google GCP
	Experience with secure research environment operation including the concepts and principles of SDEs	Experience with implementing the ISO27001 information security standard
	Experience and competence with the principles, design, security controls and day to day operation of research technical platforms including on-premises and cloud infrastructure	
	Extensive experience with related technologies including networking, compute, data storage, identity management, cybersecurity, privacy preservation/enhancement and cost control	

	Essential	**Desirable**
	Extensive knowledge and practical experience curating large structured and unstructured datasets	
	Technical skills with data integration, data transformations, integrity management, the application of standards, cybersecurity, and information governance best practices	
Analytical & Judgemental Skills	Ability to make judgements on multi-stranded or complex software engineering problems which may have no precedent or where there are conflicting opinions	Demonstrable expertise in the field
	Ability to focus on frequent, complex information within a dynamic environment	Awareness of local and national NHS digital strategies
	Knowledge of querying of NHS datasets / systems (or other highly complex data)	
	A logical and analytical approach to problem solving, able to analyse complex and highly specialised data and information and devise plans accordingly	
	Ability to write reports and policies, and present information in a format that is easily understood by others	
Personal Skills	Excellent communicator, comfortable delivering complex, sometimes contentious information to a wide range of internal and external colleagues	
	Takes decisions on difficult and contentious issues where there may be several potential courses of action	
	Able to juggle multiple, frequent changing priorities whilst maintaining productive customer relationships	
	Has an enthusiastic approach to multi-disciplinary working	
	Skilled in delivering results through managing others	
	Ability to lead development activities in specific areas, including	

	Essential	Desirable
	collaborative development across organisations Be committed to personal development and be willing to undertake training and other opportunities relevant to the role	
Behavioural Skills	Aligned to the Trust values Maintains a patient and customer-centred focus and applies the benefits of technology, data and digital to service delivery Conducts themselves in a professional manner at all times Positive attitude to all tasks and stakeholders	Ability to work in the office several days a week, with some flexibility on home working

Learning, Respect, Delivery, Excellence, Compassion, Improvement