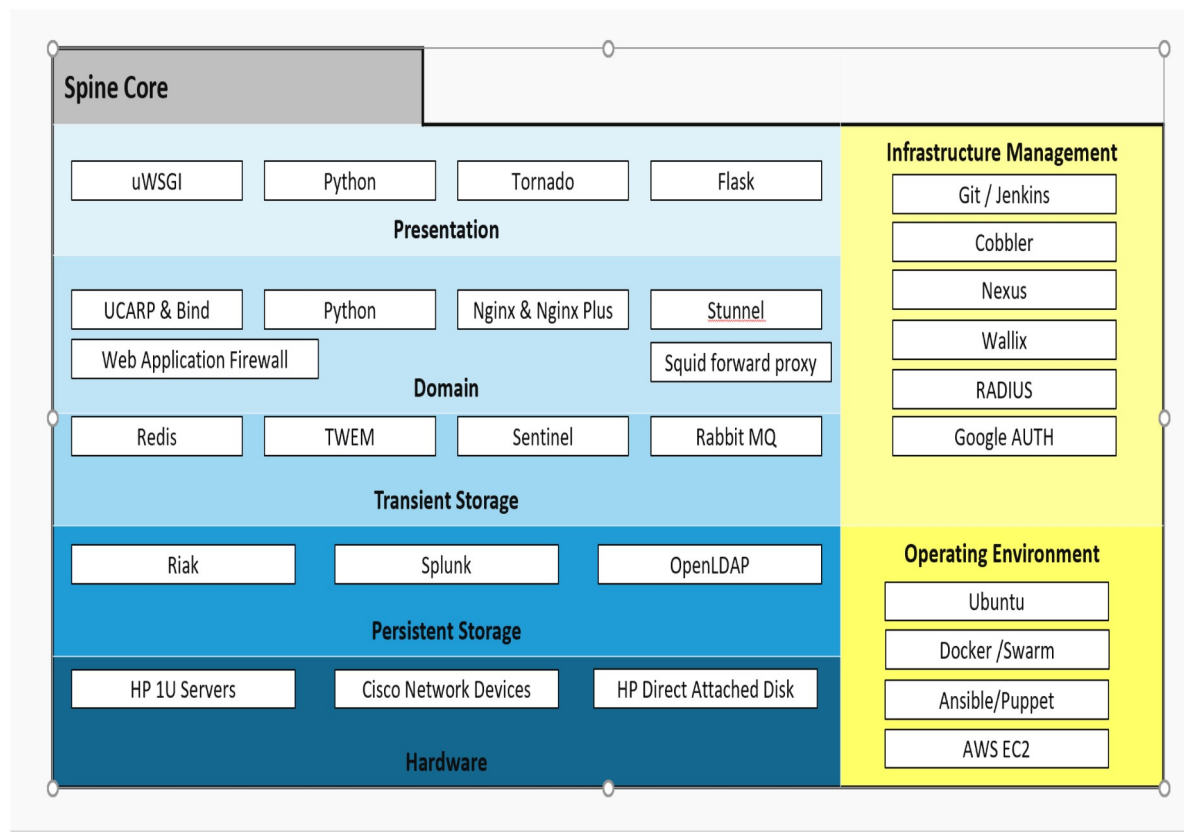


Spine Key Tech Stack diagram

[This tech stack diagram has been included for reference as most – but not all – elements are utilised by the Buyer’s demographic solution. In addition it is expected that new APIs and User Interfaces as well as links to NHS D data processing services for data analysis purposes].



For reference, the following diagrams provide an overview of the current and ‘to be’ system interfaces with Spine Demographics.

Diagram showing current System Interfaces with Spine Demographics

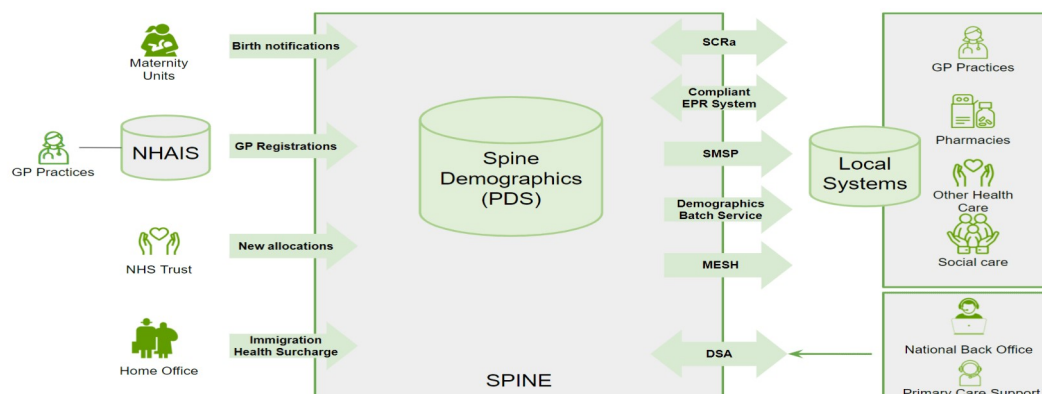
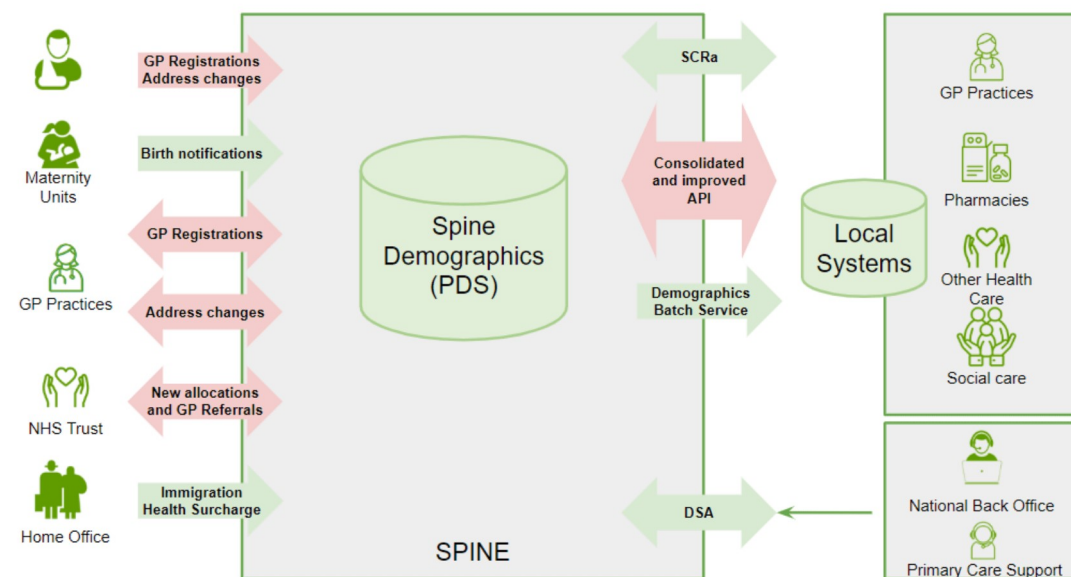


Diagram showing future* System Interfaces with Spine Demographics



- The proposed changes shown in pink do not provide an exhaustive list.

2.6.3 Technical Scope Exclusions

The primary technical scope of this call-off contract is the Buyer's Personal Demographic Service/Demographic Platform operating as part of its Spine Core Platform. Whilst encouraging innovation and supporting greater efficiency are key objectives for the Buyer it assumption is that the outcomes sought via this call-off contract will mainly be deliverable within the scope of the services outlined above. However there will also be a requirement to build new user interfaces and APIs as well as links to NHS D data processing systems for data analysis.

2.6.4 Interoperability Considerations

As per Framework Schedule 1 (Specification) para 13.2, the Supplier is required to assist the Buyer in supporting the interoperability of its systems. This includes, when requested, working on systems and deliverables outside the scope of this Call-off contract in circumstances in which the Suppliers skills, experience and knowledge will support the Buyer in the delivery of its wider business objectives. This may include (but is not limited) to the following activities (as described in Framework Schedule 1 (Specification) para 13.2.2):

- supporting service queries, requests, incident resolution;
- other development, test, assurance, and operation activities; and
- knowledge sharing and skillset transfer between teams (including Buyer teams and other suppliers).

The Buyer will agree with the Supplier when this Interoperability clause will need to be invoked, which for planning purpose it is assumed will be no more than 25% of the total resource effort/requirement outlined in this call-off contract.

2.7 Requirements

Specific requirements related to this call-off

The focus of this call-off contract is to undertake transform/change activity to improve the Buyer's demographic service and outcomes that it supports. Alongside the Buyer's generic requirements which are shown below, its specific requirements related to the core objective of increasing the accuracy, consistency and use of demographic data primarily (but not exclusively) through the NHS number are as follows (please note that other than the discovery exercise this list is not in a priority order):

1. Conduct a **discovery exercise** to identify the options available to the Buyer to deliver its demographics data objectives - both the potential ones highlighted below, and others in agreement with the Buyer and key stakeholders.

2a. Digitisation of the GP practice registration journey to eliminate transcription errors (replacing manual General Medical Services forms).

2b Improve APIs and tracing to allow users to find an NHS number with a higher "match rate" in scenarios/use cases such as:

- Patients trying to find their own NHS Number using on nhs.uk, book a COVID-19 vaccination, or book a COVID-19 test
- Other NHSD-provided citizen-facing services trying to match patients to their NHS number using identifiers such as name, date of birth, and contact details (e.g. 111, NHS Login, Vaccinations /Test booking currently 60-81% match rate)
- Other NHSD-provided services such as matching incoming civil mortality information to PDS records, currently only an 95% match rate leading to critical information loss including missed and false death notifications
- 3rd party point-of-care systems e.g. in Trusts and care homes needing to find contact information or validate NHS numbers or update patient information.

This includes addressing known backlog of user pain points with the current APIs e.g. mandatory gender field, feedback on which identifiers matched/failed, matching sophistication and waterfall matching, security/access control options, optionality and additions to identifiers used to match e.g. adding phone or email address, Information Governance approach.

2c Options appraisal and implementation of improved data flows, architecture and business rules to address synchronisation issues in a multi-authority model, e.g. automated vs. verified by GP/other; frequency: event-based/daily/on contact;

2d Improve data quality through increased digitization and improve data quality metrics/dashboards to inform priorities and roadmap for improving data quality. For example:

- targeted interventions where local systems are out of sync with national systems.
- make improvements e.g. built-in validation and potentially to report feedback to front line.

2e Increase timeliness, completeness and accuracy of mortality status:

- Move from weekly to daily feeds of civil registration mortality data to PDS, with built-in data quality validation.
- Increase completeness of mortality data provided directly by health and care organisations to PDS, if benefits case and feasibility permits. This is currently the timeliest source of data but is currently only 80% complete in England and 58% in Wales; data is available 4x faster than through the civil registration process

2f Add to the data model where needed e.g. gender separate from sex, ethnicity

As highlighted above the results of the discovery phase of this call-off contract may impact on the subsequent requirements and outcomes related to it. Any changes to or additional requirements will be linked (directly or indirectly) to the Buyer's objective of improving the quality, consistency, collection and use of demographic data, and will be discussed with the supplier as part of the Buyer's partnership approach to the delivery of its transform work programme.

Generic requirements related to this call-off contract

The Buyer expects the Supplier to work collaboratively, proactively and in partnership with it, its other suppliers, and stakeholders to deliver its objectives and outcomes. In doing so the Supplier will need to fully satisfy the Buyer's following key requirements:

- provide and resource required personal hardware and software (kit) to support the delivery of the Buyer's outcomes;
- work effectively from locations other than Buyer's accommodation;
- be available (if required) to visit/work from Buyer's selected accommodation/location including data centres;
- fully enable and support compliance with Buyer's Service Level Agreements;
- demonstrate required operational delivery competency in both the technologies, software etc used by the Buyer, and also its approach to User Centre Design to be utilised for example in the key discovery phase of this requirement;
- demonstrate full compliance with Buyer's security requirements;
- work effectively within, and support the development of Buyer's delivery approach, culture, and ways of working;
- support – as a fully invested delivery partner – the delivery of the Buyer's outcomes;

- work effectively within, and maximise the value of the Buyer's agile delivery approach;
- support the Buyer's commitment to continuous improvement, maximising delivery efficiency, technology utilisation and innovation;
- work collaboratively with all involved/interested parties (including Buyer's staff) to deliver agreed outcomes including effectively and efficiently managing hand-offs and dependencies between teams and business areas as appropriate;
- provide suitability skilled and experience resources with the required aptitude and approach to deliver the Buyer's outcomes;
- be flexible in its approach to the delivery of the Buyer's outcomes including via its resource management e.g. efficiently removing/replacing resources when required and appropriate succession planning;
- compliance with the Buyer's code development and deployment including use of peer reviews, test driven development, automation and code promotion using path to live approach;
- provide and proactively manage an onboarding and delivery transition and implementation plan to ensure they can fully support the Buyer in the effective operation of its service;
- bring added value to the delivery of the Buyer's outcomes.

Demographic team organisation

In common with much of its activity the Buyer currently – and is intending to continue – utilises a blended/rainbow team approach to the delivery of its demographic service/data objectives. Under this call-off contract the Supplier is expected to play a key role in ensuring that this blended/rainbow team works effectively including support/enhancing a one team approach, taking collective and individual responsibility for delivery objectives, and where appropriate facilitating the skills, experience and domain knowledge transfer to the Buyer's permanent resources.

For the delivery of the requirements and outcomes outlined in this call-off contract the Buyer's expectation is that the Supplier will need to provide a team consisting of the following roles and disciplines:

- Programme Delivery Manager
- Lead Product Manager
- Delivery Manager
- Lead QAT Tester
- Senior Software Developer x 2
- Software Developer x 2
- Senior Infrastructure Engineer
- User Researcher
- Service Designer

This team will work primarily with the following Buyer resources:

- Team Leader

- Business Analyst
- Tester x 2
- Software developer trainees x 2

Ways of working

At the core of the core of the Buyer's delivery approach is the value of blended/rainbow teams with colleagues from different areas working together with 'badges left at the door' to deliver joint objectives. Working as a single team the Supplier is expected to fully embrace the Buyer's culture and delivery approach. This also involves taking part in/identifying value adding activities such as knowledge sharing through presentations and 'show & tells', supporting development through mentoring or joint learning opportunities, and assisting the Buyer in identifying new/alternative development, delivery or solution management options and approaches.

2.8 Technical Constraints

The Supplier will be required to fully understand, support and work with the Buyer to maximise the transformation, operational efficiency and user value of the current demographics service.

2.9 Business Outcomes

The Buyer uses epics, stories, and tasks (recorded in Jira) to describe, track, manage and assure the work it is undertaking. Epics for running, maintaining, and making changes to the Spine Core system will be raised when appropriate following the Buyer's acceptance of a New Work Request (NWR) which describes and provides the basis for approving work to deliver the outcomes required. Where appropriate approved NWRs from the basis of the Buyer's prioritised back log and road map.

Annex 3

2.10 Technical Exclusions

For the purpose of this call-off contract technical exclusions will apply in circumstances specified by the Buyer to ensure that its current development and delivery infrastructure and associated software, tools etc are not compromised or effort invested in developing technological capability which does not align with the Buyer's current delivery solution or service development.

2.11 The Buyer's demographics Product Backlog will be developed as part of this call-off contract and will be managed by the Buyer and Supplier as part of its agile delivery approach.

3.1. Target Operating Model

During the duration of this call-off contract the Buyer will be working to deliver its Target Operating Model the key elements of which are as follows:

- Continuing to increase the range of services and data available through/supported by its Platforms;
- Alignment to the SofS data and tech vision for healthcare; interoperability and openness, user needs, inclusion, privacy, and security;
- Supporting digitally-enabled transformation through greater access services and data through the internal and external development of API's, citizen self-service and the requirement for health and social care professionals to access information at the point of need;
- Deliver reductions in:
 - Operating costs through increased efficiency and reductions in infrastructure and overhead costs
 - Tech debt through uplift of technology removing reliance on out of support hardware & software and reduction colocation hosting carbon footprint
 - Integration cost for suppliers thereby increasing opportunity for innovation
- Support increases in:
 - Clinical Safety through reductions in potential for errors, improving clinical safety and patient health outcomes;
 - Security by uplifts to modern standards improving security and reducing the cost of fraud/cyber-attacks;
 - Delivery velocity and reducing development timescales market;
- Contributing to the vision to enable the sharing of clinical information for direct care across all care settings;
- Continuing to meet age Service Level Agreements.

3.3 Initial Statement of Work (SOW)

3.3.1 SOW 1

The initial Statement of Work associated with this call-off contract will be to support the Buyer in the delivery of transform activity highlighted in this call-off contract.

2. Responsibilities of the Parties

Both Buyer and Supplier have key roles in and are responsible (individually and crucially in partnership) for the successful delivery of the outcomes in this call-off contract and Statements of Work related to it. Whilst the contracting approach e.g. fixed price rather than capped Time & Material may alter the commercial basis of the relevant delivery accountability model whatever the approach that is taken the Buyer expects the Supplier to demonstrate its commitment to optimise the delivery

of the demographic service including taking responsibility for the delivery of outcomes, putting in place continuous improvement processes, providing the expertise and experience required by the Buyer to deliver required outcomes and supporting the Buyer to do more with less.

3. Skills / Capabilities Profile

Although rates will be commercially evaluated on the basis of a sample profile, the listing below is intended to provide the Supplier with an initial idea. It is not intended, at this level, to be definitive (individual Statements of Work should be more specific in this regard).

Resource Profile details are contained in:	Annex 5
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4. Call-Off Terms

If the Supplier wishes to submit an additional Option around specific terms to the Buyer, whereby there is some commercial benefit to the Buyer in making amendments to such terms, they are entitled to do so. However, such options will be incorporated solely at the discretion of the Buyer (via an amendment to the Call-Off specific set of terms). Where an additional Option is submitted, this will not be evaluated in the evaluation scoring process unless specifically indicated in the evaluation questions.

Annex 1: Call-Off Schedule 20 – Target Sectors

HEALTH AND SOCIAL CARE SETTINGS	Tick boxes
Primary Care	Y
Ambulance Services	Y
Secondary Care - Hospital Settings	Y
Pharmacy	Y
Mental Health	Y
Community Care – Children’s Services	Y
Community Care - Adult Services	Y
Public Health & Wellbeing	Y
Screening	Y
Social Care – Children’s Services	Y
Social Care - Adult Services	Y
Genomics	N
Health and Social Care Policy	Y
Health Informatics	Y
Medicines and Healthcare Products	Y
Health and Social Care Regulation / Quality	N
Health Sector Education, Training and Workforce	N
Health and Social Care Research	Y
Blood and Transplant Services	Y
Independent Health Provision	Y

HEALTH AND SOCIAL CARE SYSTEMS	
SPINE (Summary Care Record)	Y
Screening Systems	Y
Electronic Prescription Service (EPS)	Y
Electronic Referral Service (ERS)	Y
GP IT Systems & Services	Y
Health and Social Care Mobile Apps	Y
Health and Social Care Web Apps	Y
Citizen Identification and Verification Services	Y
Health System Infrastructure (email, etc)	N
Secondary Uses Services	Y
Health Data Collection, Processing and Dissemination	Y
Care Management Systems	Y

Annex 2: Call-Off Schedule 20 – Technology Capabilities

Application Development	Tick boxes
Continuous Integration & Delivery Tools	Y
Testing & Quality Assurance Tools	Y

Business Applications	Tick boxes
Data Warehousing	Y
Enterprise Applications	N
Geospatial	N
Project Management	N

Customer Management	Tick boxes
CRM	
Enterprise Applications	N

IT Management	Tick boxes
Middleware	N
Networking	Y
Service Management	Y
System Management	Y

IT Services	Tick boxes
Anti-Virus, Vulnerability Mgmt & Monitoring	Y
Cloud Orchestration	Y
Encryption	Y
Remote Access Service	Y