

G-Cloud 15

Lot 3: Associated Support Services

Service Design and Cloud Architecture



Introduction to our Proclamation...

Why Us? →

Clients globally are recognising the value that Servita offers. They have discovered that choosing Servita means receiving a level of service that not only meets but consistently exceeds industry standards, and that working in collaboration with our staff, forms lasting partnerships and a fulfilling experience throughout the journey.

Achievements working together with Customers →

Servita has designed and implemented the world's first mobile water microbiological laboratory capable of measuring SARS-CoV2 prevalence and detecting variants of the same; providing software services in support of advanced cancer research, tumour microenvironments and 3D cancer models; and we have designed, built and now maintain a national, mission critical information exchange platform for the NHS that unlocks the data complexities in the fragmented secondary care IT landscape

Our Mission →

To continue to support customers who's desire it is to stay at the cutting edge of science and technology.

A Flavour of Our Services →

Cloud Strategy & Planning; Project & Programme Management; Service Design, Research, Content Design and Product Management; Cloud Architecture; Systems Integration; Product Design & Prototyping; Training & Development; Business Change Management; Service Management; Data Engineering and Analytics; Predictive Modelling, Data Science and Data Analysis; Infrastructure-as-a-Service; Platform-as-a-Service; Software-as-a-Service; Test as-a-Service; User Research and User Testing; Clinical Safety Engineering

Servita at a Glance

250+

Experts

9

Diverse Sectors

100+

Million Lives impacted

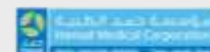
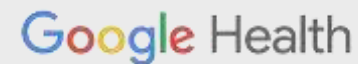
\$1B

projects delivered

Trusted By



England



Sustainable, Cloud-hosted Services, For Good!

Our Dedication



At Servita, we are constantly pushing the industry to achieve sustainable cloud; not because our customers require it, or indeed because it sounds good, but because we see it as our responsibility to drive the market towards preserving modernizing industry and in doing so, protecting the environment.

Sustainability is one of our key architectural principles, and we have a strong track record of delivering measurable outcomes, including winning the HSJ Digital Award 2025 for “Moving Towards Net Zero through Digital” and, in 2023, both “Best Supplier” and “Most Sustainable Software” at the NHS Sustainability Partnership Awards.

When combined with transforming services e.g. reducing elective care backlogs, improving patient outcomes or improving working conditions for Adult Social Care Workers, the phrase ‘Sustainable Tech for Good’, really takes meaning!



We’re dedicated to delivering our mission, which is carefully designed to empower UK Public Sector with the benefits associated with cloud technology. Our focus is on delivering outcomes and in enjoying the transformational journey with the customers we forge long-lasting partnerships with to positively impact the UK’s future”

Rich Story

Managing Director, UK



Service Design and Cloud Architecture

About the Service →

Our Service Design and Cloud Architecture services are the culmination of experience, passion and drive for designing and implementing transformational cloud-hosted solutions to CDDO Service Manual and Technology Code of Practice standards.

Our proven approach to Service Design ensures useability, accessibility and seamless journeys across channels, whilst our expertise in Cloud Architecture delivers solutions that are secure, scalable and cost effective across AWS, Azure and GCP.

Service Features →

- Deliver desired outcomes and achieve successful GDS/CDDO service assessments
- High quality outputs including service blueprint, architecture diagrams, target operating model and service interaction designs
- Multi-disciplinary teams driven by creative, technical and pragmatic people
- Design and advisory on cloud accelerators such as NLP, ML, RPA and AI
- Workshops, facilitation, business case and benefit realisation plan support
- 'One-team' agile and collaborative ways of working
- Help with technology choices and vendor selection
- Interactive and high-fidelity UI/UX Designs and prototypes
- Data and Integration Strategy and Designs
- User research, useability testing and methods for clearly demonstrating value of proposed service(s)

Service Benefits →

- Achieve seamless user experience across channels and interactions
- Establish clear user needs to enable CDDO compliant delivery
- Avoid costs associated with delays due to unsuccessful service assessments
- Identify value early and ensure benefits are realised
- Avoid late barriers to delivery
- Grow, develop and upskill your internal capability
- Viable and deliverable technical designs to underpin your organisation
- Achieve costs savings associated with auto-scaling and optimising workloads in the cloud
- Be self-sufficient with 'right-sized' records of technical design and architecture
- Upskill in-house teams through our knowledge transfer and training

Service Design and Cloud Architecture

Planning



Servita work closely with customers, getting to understand and capture their key goals and desired outcomes from the outset. We will conduct a rapid, thorough yet unobtrusive assessment of existing systems, infrastructure, processes, risks and constraints before planning out the work required to achieve your goals.

We use a scaled agile framework to underpin our planning, which we can tailor to suit your needs and the needs of the transformation in recognition that one size rarely fits all.

We favour sprint-based scrum or kanban delivery, accompanied by project plans demonstrate full control of the scope of work encapsulating interdependencies and critical path analysis.

We build intuitive and digestible roadmaps that plot the path to achieving your outcomes, with regular communications and planning updates ensuring everyone remains aligned and aware of progress, and that they understand the implications of any barriers to delivery.

Planning includes the capture of deliverables, which we accompany with RACI to drive accountability and encourage buy-in from all project stakeholders.

Our planning service is specifically for GCP, AWS and Azure hosting and has specialist expertise in the planning of serverless and containerised cloud architectures.

We also have specialist planning services in the use of Google and OpenAI generative AI and ML-Ops set-ups, and specific knowledge around how to plan running AI and ML in CI/CD pipelines.

Service Design and Cloud Architecture

Set-up and Migration



Servita will help you migrate to or between cloud services by first understanding your as-is hosting and set-up in detail. Our experience means we can quickly identify the optimal path to move your workloads to a new cloud hosting. Based on our analysis we will deliver recommendations supported by rationale, clearly articulating the benefits (and any drawbacks) of the recommendations we provide. Each option will be accompanied by practical and realistic migration plans, technical assurance approaches/plans, operational designs and target architecture design documents with full details of all requisite cloud services along with any related costs.

At this stage you will have everything you need to make informed decisions about what and how you want your cloud migration to comprise. We will support and enable you through the full journey of cloud migration, including any required dual-running, data synchronisation, master data management and pre and post migration assurance.

This service covers AWS, Azure and GCP cloud migrations.

Security Services

Our Security Experts provide a range of services designed to accompany Cloud Support. The services include:

- Compliance and Audit
- Security Risk Management including third party supply chains
- Security strategy
- Security testing
- Security incident management services

For Kubernetes platforms we also have Certified Kubernetes Security Specialist (CKS) accredited engineers to provide unparalleled assurance of your k8's deployments.

Service Design and Cloud Architecture

Training →

Servita can manage all aspects of the comprehensive, structured and innovative training programme that our customer require to ensure end users, along with business leaders, business support staff and technical support staff, are fully equipped with the skills and hands-on experience needed to effectively perform their operational roles.

Servita's training approach will be designed, facilitated and managed by our highly experienced training experts and will adopt an appropriate blend of training needs analysis, tailored training design and effective learning delivery through multi-channel means. We will conduct comprehensive pre and post go-live evaluation to assess adoption, knowledge transfer and capability analysis.

Using Servita's Training Model we will manage and deliver a comprehensive and governed learning management process from start to finish. This is a flexible process which allows us to fully incorporate existing experience, skills and knowledge, manage and deliver technical cloud practitioner and skills training, yet comprehensively cover all the high-level elements required to deliver outstanding learning results and adoption.

Our model is structured around 4 pillars:

1 Training Needs Analysis

- Understand your business and people needs
- Identify competency gaps
- Identify performance gaps
- Identify skills gaps
- Developing Talent

2 Training Design

- Solution design
- Learning delivery design
- E-Learning
- High Quality product design
- Online materials and courseware

3 Training Delivery

- Training organization
- Facilitation
- Classroom
- Coaching
- Platform delivery for E-Learning

4 Training Measures & Evaluation

- Validation and clear measurement against competency performance and skill gaps
- Impact assessment and adoption testing

Training Design

Training design delivers a suite of learning material to ensure rapid adoption through accelerated learning techniques supported by innovative methods and solutions. Design includes:

- Identifying learning objectives
- Developing in-house trainers, cloud-provider specifics, as well as learner material; online workbooks
- Mobile e-learning tools
- Writing test scenarios
- Learning assessments
- Provision of technical learning environments

Quality Management

QMS Benefits



- Delivers a robust and consistent approach to identifying and successfully completing customer engagements.
- Supports business development and effective operation throughout the company.
- Provides our personnel with comprehensive training in our goals, processes, internal and external standards, toolsets, and values.
- Provides the structure to identify and evaluate potential improvements to the QMS, implementing those that offer significant business benefits to Servita or our customers.
- Enables internal QMS audits, addressing nonconformities to maintain the highest standards.

Proudly accredited

Servita has earned various international and national accreditations, standards and memberships, a testament to our commitment to quality. These accreditations validate our dedication to maintaining the highest standards of service and excellence in all aspects of our business.



Access to the latest cloud vendor migration developments, ensuring a best-in-class approach, based on our work with major clients in both the public and private sector in the UK and overseas

Delivery meeting ISO27001, 9001, 14001, Cyber Essentials Plus and CESG good practice guidelines

Testing: Servita Testing and QA Engineering

Servita go beyond traditional testing and QA practices, ensuring development and DevSecOps squads are highly productive with optimal time, cost and quality parameters.

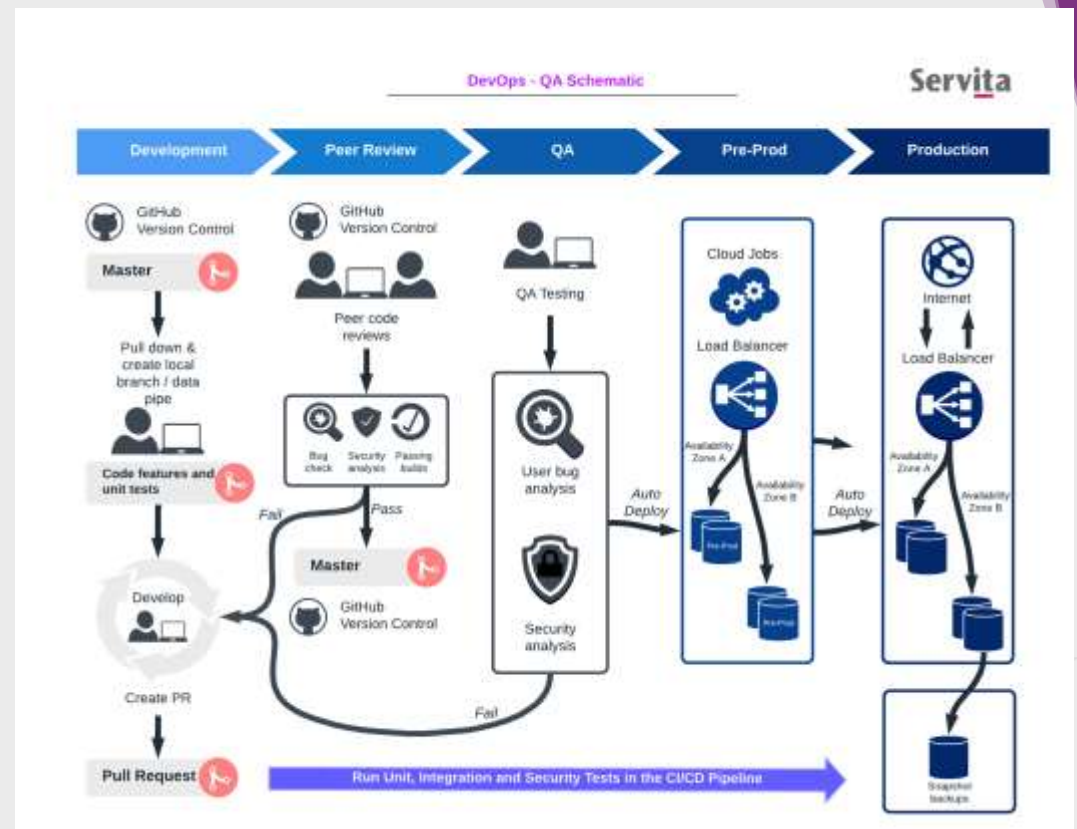
Our mission in testing is to automate as much as possible, utilising the latest tools and techniques in Test Driven, Data Driven and Behaviour Driven Development.

For the CMD platform Data Driven Testing (DDT) is particularly important, as is the generation of representative test data to ensure edge cases are fully accounted for and assured as part of the development process.

Our tooling enables automated and rapid creation of huge, representative datasets (spanning a complex range of edge cases) that consequently drive the pace of highly assured components and interfaces.

Typical volumes for Servita integration test data packs:

- 10m Patients
- 500k referrals
- 1m appointments
- Functionally infinite specialty and pathway combinations
- Established schemas for social and environmental data ingests (including mass population normalisation factors)



We have an established means of improving the referential integrity and some data quality. E.g. no attended appointments in the future and deliberate seeding of test data with random errors to confirm validation and/or error handling of integrations.

Testing: Servita Testing and QA Engineering

Test Levels and Types →

Testing levels represent stages or phases in the software development life cycle, marked by the progression of testing activities as the software evolves. Each level addresses specific aspects of functionality and quality.

Testing types categorize testing based on specific objectives and aspects of the software under evaluation, helping to clarify the testing's purpose and approach.



Unit Testing:

Individual components or units of a software application are examined in isolation to verify their accuracy and ensure proper functioning.

Frontend: Unit Testing via Vitest (a wrapper around Jest, configured to work well with Vite build server)

Testing specific business logic functions in the frontend code to confirm that a specific input to the function returns an expected output.

UI Testing via Playwright: Testing visuals such as a button disabled state etc.



Integration Testing:

This testing process verifies not only the accuracy and proper functioning of individual components but also focuses on the interaction between these components, including API specifications.

Integration Testing via Playwright: This involves testing data retrieval from an endpoint and its rendering in the DOM.

Backend: Integration Testing via Jest (Ensuring that the API specifications return data in a specific format, model, or schema without any irregularities.)

Web analytics (e.g., Google Analytics) and MI analytics involve aggregating data from backend services into a single database, potentially for use with Power BI. While the implementation of Power BI is not guaranteed, the reporting database will be constructed.

Note: It is mentioned in the project background

Testing: Servita Testing and QA Engineering



Automated Testing:

Validate the user journey, including functionality, navigation, and perform performance regression testing.



Regression Testing:

Re-run automated tests to ensure that new changes haven't introduced any regressions.

Ensure the overall system integrity after every release or significant change by running an automation suite as part of CI/CD.



Manual Testing:

Initial manual testing is conducted to ensure that basic functionality and usability for both front-end and backend applications comply with the accessibility standards outlined in WCAG 2.2.



Performance Testing:

Test the application under critical load, volume, and stress conditions to verify that the established benchmark parameters are met before the application goes into beta phase.

- Identify Performance Metrics
- Plan and Design Performance Tests
- Configure the Test Environment
- Implement Your Test Design
- Execute Tests

Gatling or the Predator testing tool will be used for performance testing, and the backend will be monitored using monitoring tools like Grafana or Prometheus.



User Acceptance Testing:

Involve stakeholders, testers, and user representatives(to facilitate and ensure that the software being delivered meets the needs and expectations of Neom HWB

Testing: Servita QA Tools and Framework

Test Tools / Framework →

Tool Name	Usage
Cypress or Playwright – Cucumber	End-to-end testing of the UI and API using the Playwright-Cucumber-PageObjectModel framework, combined with Jest as a test runner.
Vitest	Usages include unit testing and integration testing for specific purposes
Jest	Integration testing of APIs with the Jest framework
Gatling or Predator	Performance testing
Prometheus/Grafana	Monitoring tools to check graphs and logs
PostMan	For the purpose of manual testing API's
Storybook or Axe	Applications of accessibility testing
GitHub & GitHubActions	Code repository and CI/CD
Jira	For the sole purpose of bug tracking or test management.

Social Value

Our Commitments



- You can see our Carbon Net Zero and Reporting plans on our website
- We are a member of the Good Business Charter and clearly state pledges to local charities including % net profit donations to our pledges for the duration of the relevant account
- We have made our progress and blockers in pursuit of helping the market shift to Sustainable Cloud known, and frequently post updates on LinkedIn
- Our Sustainability Director (Alex Drew sits on the Cross-Government STAR committee advising on sustainable technology in government
- For more information, please contact Alex on alex.drew@servita.com

Security Clearance

- All our staff are BPSS cleared as a minimum,
- All of our Engineers are SC Cleared
- As a member of the UK's trade association for Aerospace, Defence and Space, Servita have the ability to self-sponsor and process SC Vetting via our ADS membership

Building a Connected Healthcare Ecosystem with Servita

Situation



Servita's Expertise in Designing, Building, and Managing Healthcare Platforms

To bring this ambitious service to life, the NHS entrusted Servita with the design, build, delivery and ongoing management of the NHS Patient Care Aggregator Platform. Using its advanced healthcare integration platform technology, Servita connects and aggregates patient data across all NHS organisations. This enables patients to easily manage their care system interactions, such as referrals, appointments, peri-operative questionnaires, and clinical documentation.

To reduce timescales, costs and carbon footprints associated with typical HL7 integration programmes, Servita developed a bespoke tool that automates the integration and assurance of organisations onboarding to the platform. This advancement in automated platform onboarding carries huge benefits, especially when used at scale, and not only intelligently auto-enables integration but also provides automation around build steps, configuration management and issuance of NHS Login tokens.

Building further on this, Servita created the Wayfinder Dashboard, a tool providing national, regional, trust, and speciality-level reporting for wait times and DNA rates. This potent combination of MI and tooling enables the NHS to target specific patient cohorts at a national level, ensuring interventions and operational improvements are delivered where they are most needed.



Building a Connected Healthcare Ecosystem with Servita

Continuous Improvement →

Continuous Integration, Continuous Delivery

Servita remains committed to continuous improvement and sustainability. This involved implementing a cutting-edge, infinitely scalable data exchange platform (see InfinitiEx) with incredible levels of system performance.

The platform utilises Servita's cutting-edge capabilities in Cloud-hosted Kubernetes platforms, advanced DevSecOps protocols and 100% uptime throughout live service with unparalleled monitoring across all integration points enabling instantaneous diagnosis of upstream incidents, a service now relied upon by the National Service Desk. All integrations were delivered to HL7/FHIR v4 standards.

Impacts →

Improved Patient Engagement and Enhanced Operational Efficiency

Servita's collaboration with the NHS on the NHS National Patient Care Aggregator Platform represents a significant step forward in the way patients in England can proactively interact with their care. The platform provides patients with real-time updates and allows for easy management of their healthcare interactions, leading to substantial national benefits such as reduced waitlists and 'no-shows.'

Moreover, Servita's work has bolstered the NHS's capability to manage its service delivery more effectively. By providing a detailed overview of wait times and DNA rates at various organisational levels, the NHS can now target interventions and operational improvements where they are most needed.

Servita's work continues to exemplify the power of technology to transform healthcare delivery. By building a connected healthcare ecosystem, Servita has played a valuable role in enhancing patient engagement and operational efficiency within the NHS.

Transforming the Data Access Environment for NHS Digital

Situation



Modernising Data Management for Improved Healthcare Insights

NHS Digital, the provider of information, data, and IT systems for health and social care in England, faces immense challenges in managing patient and healthcare data. Their Data Processing Service (DPS) is responsible for transforming the way data is collected, processed, and used to improve health and care.

A key strategic objective is to enhance access to rich datasets via the Data Access Environment (DAE), a vital national resource for secure data access. The legacy SQL-based monolithic platform was unable to scale effectively and impacted processing performance. Servita was engaged to re-platform the DAE and build data pipelines for onboarding key national datasets.



A Comprehensive Patient Engagement Platform (PEP) for NHS Health Call

Situation



Co-creation of an Effective and Comprehensive Patient Engagement Platform

NHS Health Call aspired to establish a comprehensive and effective Patient Engagement Platform (PEP) to allow patients to manage their appointments, access information, and communicate with healthcare professionals through a single point of contact.

Servita was commissioned to co-create and build this solution with NHS Health Call and to produce the product while providing expert support. The PEP was envisioned to enhance the patient experience and alleviate the administrative pressures faced by NHS colleagues.

HEALTH CALL
INNOVATE • DIGITISE • TRANSFORM

A Comprehensive Patient Engagement Platform (PEP) for NHS Health Call

Solution



A Digital First, Integrated Solution

We developed a unique 'digital-first solution', the Patient Engagement Platform (PEP), which seamlessly integrates with the NHS App already used by over 50% of patients across England.

This integration eliminates the need for multiple apps or logins to manage appointments and correspondence. PEP allows organisations to upload appointments, letters, and correspondence directly into the NHS App for patients to view. They can respond to or amend things in real time, all from one place.

In addition to these features, the PEP, developed by NHS professionals with clinicians and patients in mind, allows patients to manage outpatient appointments and communicate through the NHS App, enhancing their experience. Patients are empowered to manage their own care, reducing missed appointments, and streamlining the patient journey. Health Call's library of digital solutions, including Virtual Wards, PIFU, Waiting List validation, and remote monitoring solutions, can be integrated into our PEP, allowing for management of the entire patient journey with one platform and supplier.

Impacts



Reliable and Scalable Platform with a Myriad of Benefits

The product of our collaboration is a fully supported, reliable and scalable Patient Engagement Platform that offers a multitude of benefits. These include:

- Potential savings of over £1M on letters, printing, and postage for each Trust.
- Reducing carbon emissions.
- Increasing patient transparency with appointments and correspondence.
- Integrating within the NHS App, eliminating the need for extra logins or requests for patients to download or register a new platform.

The solution is already highly favoured by patients:

- 83% of patients say they will use PEP to speed up their health and care support.
- 81% appreciate having everything in one place.
- 64% of patients support PEP as a means of saving the environment.

With this solution, we are driving a transformative shift in patient care within the UK's healthcare system. This innovation not only enhances the patient experience but also significantly reduces the administrative pressures on NHS staff, leading to more efficient and effective patient care.

Get in Touch

Global

13 Hanover Square, Mayfair, London,
W1S 1HN, United Kingdom

+44 20 3982 6826

London

The Smiths Building, 179 Great Portland Street,
London, United Kingdom, W1W 5PL

+44 11 7315 5245 ext. 55245

Leeds

Suite 1.10, Platform, New Station Street,
Leeds, LS1 4JB

Riyadh

1st Floor Riyadh Park, Al Aqiq, Riyadh,
11564, Kingdom of Saudi Arabia

+966 (011) 250 0561

Qatar

8th Floor Al Fardan Office Tower, 61 Al
Funduq Street, West Bay PO Box 31316,
Doha, Qatar

+974 4 410 1533

Dubai

1st Floor HDS Tower, Cluster F, Jumeirah
Lakes Towers, Dubai, United Arab Emirates

+971 4 220 5115

Singapore

8 Marina Boulevard #05-02
Marina Bay Financial Centre
Singapore (018981)

+65 6818 5778

Main Contact for G Cloud 15:

Rich Story

Rich.story@servita.com