



G-Cloud 15

Lot 1a: Infrastructure as a Service (IaaS) and Platform as a Service (PaaS)
Advanced Data Platforms and Managed Infrastructure

Introduction to our Proclamation

Why Us?

Clients across the globe recognise the value that Servita delivers, selecting us to design, implement and operate mission-critical digital health platforms at national and organisational scale. Our experience spans the Middle East, Asia-Pacific, Africa, Australia and the UK, where we partner with public sector bodies and healthcare organisations to deliver secure, scalable and interoperable solutions.

Examples of our international delivery include:

- Saudi Arabia – Council of Cooperative Health Insurance (CCHI) / Saudi Health Authority: Delivered a national programme enabling world-leading acute care access through multi-tier AWS solutions, integrating with 800 healthcare providers and 3,000 insurance companies.
- Qatar – Hamad Medical Corporation (HMC): Delivered digital medicines management capabilities on Microsoft Azure.
- Singapore – SingHealth and Ministry of Defence: Delivering Allscripts (Altera) EMR into hospital environments using a hybrid cloud architecture.
- Kenya – Ministry of Health: Delivering a national integrated Electronic Healthcare Record (EHR) programme on the Government Common Cloud.
- Australia – Dr Foster Telstra Health: Implemented a new hospital practice system using hybrid cloud technologies.
- United Kingdom – NHS England and DHSC: Delivered critical national infrastructure and operational services on AWS, alongside solutions for the Ministry of Justice, Ministry of Defence and Home Office across AWS and Azure platforms.

By combining deep technical expertise with collaborative ways of working, we build long-term partnerships that consistently exceed industry standards and deliver measurable outcomes throughout the service lifecycle.

Achievements working together with Customers

Servita's Service Design and Cloud Architecture capability is demonstrated through the delivery of complex, mission-critical digital platforms at national and international scale. We apply structured service design methodologies and cloud-native architectures to translate user, clinical and operational requirements into secure, scalable and resilient services.

For NHS England, Servita designed and built the National Patient Care Aggregator, a cloud-native Health Information Exchange integrating the NHS App with secondary care systems. Architected on serverless AWS services and microservices, the platform supports over 38 million users, processes up to 5,000 transactions per second and delivers sub-200ms latency, achieving 99.9999% availability as critical national infrastructure.

For the Foreign, Commonwealth & Development Office and GCHQ, we designed a secure AWS-based reporting platform to replace fragmented manual processes

across 110+ global initiatives. Using containerised services, Infrastructure as Code and advanced data security controls, the solution delivers real-time insight with 99.99% availability in highly classified environments.

During the COVID-19 pandemic, Servita designed a national wastewater epidemiology platform for UKHSA, combining high-performance cloud computing, data engineering and advanced analytics to inform national decision-making. The service integrated geospatial and clinical datasets to provide real-time prevalence intelligence covering 74% of England's population.

These programmes demonstrate our ability to design user-centred services and architect cloud solutions that are interoperable, secure by design, and resilient at scale.

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: We guide organisations through strategic direction to support their journey towards sustainable business models and robust cloud adoption, ensuring alignment with operational goals.
- Cloud Architecture: We design systems that are scalable, maintainable, and resilient, balancing trade-offs between complexity and business goals to ensure long-term adaptability.
- Systems Integration: By uniting diverse systems and technologies, we create unified solutions that enhance efficiency, effectiveness, and interoperability, making your organisation more agile and resilient.
- Design & Prototyping: Our service facilitates iterative development by enabling rapid creation and refinement of prototypes, allowing for continuous testing and feedback throughout the design process.
- Training & Development: We provide extensive knowledge transfer and upskilling through structured training pathways, ensuring client teams are equipped to transition services into sustainable Business-as-Usual operations.
- Data Engineering and Analytics: We design and implement robust data architectures that enable efficient data management, integration, and analysis to support business intelligence and informed decision-making.
- Predictive Modelling, Data Science and Data Analysis: Our team utilises cutting-edge algorithms, machine learning techniques, and advanced data engineering to extract valuable insights, predict trends, and optimise processes.
- Infrastructure-as-a-Service: We provide fully-secured, scalable cloud solutions that can have applications up and running in hours, backed by industry-standard CI/CD tools and Infrastructure as Code technologies.
- Platform-as-a-Service: We build robust, secure, and scalable platforms using reusable modules and automated pipelines to enable rapid onboarding and friction-free delivery of digital services.

- Software-as-a-Service: We propose and deploy national infrastructure solutions using a Software-as-a-Service fee structure that includes 24x7x365 system monitoring and zero-downtime deployments.
- Test as-a-Service: Our test teams work with product and development at the start of the process to co-develop automated tests, enabling consistent assurance on every new feature for higher quality outcomes.

Sustainable, Cloud-hosted Services, For Good!

Our Dedication

Servita proactively champions the transition to sustainable cloud ecosystems, viewing environmental stewardship not as a discretionary compliance exercise, but as a fundamental responsibility to modernise public sector infrastructure. Going beyond simply meeting buyer requirements, we effectively set the standards for 'Green IT' by integrating carbon-reduction strategies into the heart of our technical architectures. This commitment is best demonstrated through our partnership with the Greener NHS Transformation Directorate. Servita pioneered a first-of-its-kind environmental benefits tracking and management framework to quantify the impact of digital transformation.

This work, which was subsequently presented to the MOD Software Development community, also led to Servita being named 'Supplier of the Year' at the NHS Sustainability Awards, proving our ability to align large-scale digital delivery with the UK's Net Zero ambitions.

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.

About the service

Servita's Advanced Data Platform and Managed Services provide high performance, infinitely scalable and secure cloud-hosted data services. Our value proposition is based on unparalleled customer satisfaction through cutting-edge products and services delivered by personable, talented, and high performing teams.

We have demonstrable expertise and experience in delivering high quality solutions, at pace to both agile, waterfall and hybrid delivery methodologies, and have done so successfully for Gov clients in the UK and overseas. Our industry leading, ToGAF accredited Technical Architects have a proven track record of identifying and creating optimum solutions to what are often very complex business problems.

Servita's cloud-hosted tooling and solutions quickly generate the outcomes our clients want through safe, secure and robust integrations delivered by our DevOps and CI/CD specialists.

Our platforms and container services are based on advanced micro-services architectures, MongoDB serverless data layers and node.js coding.

We are experts in serverless technologies. By leveraging our certified partnership status with AWS and Microsoft, Servita delivers high-performance, serverless architectures (including AWS Lambda and ECS Fargate) that eliminate the burden of infrastructure management. For our clients, this translates into significant cost-optimisation through pay-as-you-go models and limitless scalability, ensuring services remain performant and resilient even during periods of peak citizen demand.

This basis not only enables vertical and horizontal auto-scaling, but extremely performant under high load volumes, making it the foundation of many national services.

Service Features

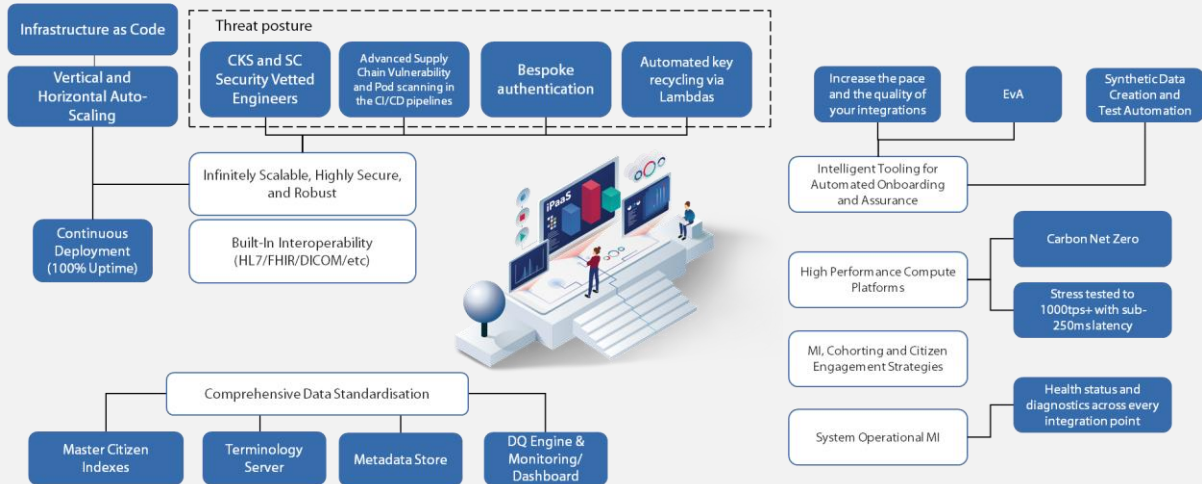
- Vertical and horizontal auto-scaling to keep response times low
- Advanced trace identification, monitoring, and alerting
- Interoperability through API / interface standards such as FHIR
- Connectivity Options: N3, HSCN, Janet, and many others
- Automated deployment, scaling, testing, and monitoring
- Systems integration to eliminate need for data store and management
- DevOps to orchestrate fast delivery of applications and services
- CI/CD (Continuous Integration/Continuous Delivery or Deployment)
- Data Exchange, in formats such as XML, JSON and more
- Cloud and Solutions Architecture, giving access to cloud computing

Service Benefits

- Reliably access the system due to high availability / CI
- Achieve cost efficiencies, through automatic scaling around system demand
- Exchange information across different devices, due to platform agility
- Access data from multiple sources, speedily integrated and aggregated
- Transfer offline data to online using dataset onboarding
- Investigate anomalies and confirm relationships, through data interrogation
- Utilise our exceptionally managed service standards
- Support business or operational needs through fast integration
- Quickly and easily access information anywhere, utilising internet connectivity
- Safeguard data through our trace identification, monitoring, and alerting

Advanced Platforms Enabling Desired Outcomes through IaaS and PaaS

Our mission is to enable the clients that partner with us, to remain at the cutting edge of science and technology...Our platforms and services are designed to deliver this mission...



Service Details

Managed Services

Servita provide:

- ITIL compliant platform build, run and maintain services
- 99.95% and above availability and Dedicated+ Model
- 24x7x365 DevOps and Platform-as-a-Service
- Service Integration and Management (SIAM)
- Container Services and Application Packaging for old and new software components
- Billing Management / Pay for What You Use
- Back Up and Restore services to meet client requirements focussed on the following components:
 1. Virtual Machines
 2. Kubernetes Clusters
 3. IaC States
 4. Cloud Resources (EC2, RDS etc.
 5. Databases
 6. File Storage

Servita offer clients control over which backups are performed by agreeing upon this in advance of the outset of services (see On-boarding). Standard resources are backed up automatically. Clients can also request changes to their back up requirements. This will be requested via email, in order to meet compliance and requirements.

Our platforms are set up to achieve multiple datacentres with disaster recovery.

On-boarding

Servita will conduct an initial discovery session to understand requirements, constraints, and ways of working.

We will tailor our services to strike cohesion with clients and ensure desired outcomes are achieved in a way that generates high levels of customer satisfaction. As such, insights gleaned from our discovery phase will serve as the diagnostic blueprint for our engagement. Rather than applying a 'one-size-fits-all' model, we use the specific insights gathered regarding technical constraints and stakeholder drivers to calibrate our delivery framework. This allows us to align our governance structures and communication cadence with the client's internal governance. By tailoring our methodology to match the client's existing protocols, we foster a 'One-Team' mindset that ensures seamless cohesion and the accelerated realisation of project outcomes.

The output of the initial discovery will be a Servita Methodology Matrix which plots all key deliverables, their accountable owners, their purpose and at which stage they will be delivered to which areas of the client team(s).

Off-boarding

Servita ensures that clients retain full ownership and operational control of all services at the point of transition. We provide a complete handover of data, user and licence accounts, source code, configuration assets and architectural artefacts in agreed formats.

To support continuity and long-term maintainability, we deliver structured knowledge transfer materials, including:

- Architectural Decision Records (ADRs): Documenting key design decisions and trade-offs to support future development and avoid technical debt.
- Operational Playbooks and Service Manuals: Step-by-step guidance for system operation, monitoring, incident management and change control.
- Data Dictionaries and Schema Documentation: Definitions of data models and interfaces to support integration, governance and analytics (as delivered for the Ministry of Justice Data-as-a-Service programme).
- Technical Walkthroughs and Recorded Sessions: Live and recorded demonstrations of system architecture, codebases and deployment pipelines to support client technical teams.

This approach has been successfully applied for NHS England and the Ministry of Justice, where our commitment to transparent documentation and "working in the open" enabled client teams to transition services into business-as-usual (BAU) with minimal dependency on Servita.

Where required, Servita will co-design an exit and migration plan with the client, covering technical, operational and governance requirements. This includes agreed timelines, risk mitigation measures and validation checkpoints to ensure a controlled, secure and seamless transition of platforms and data.

Data Extraction

At contract end, users can extract and export their data in JSON, CSV and SQL formats. Service and Security Management Logs can also be retained and stored according to customer requirements.

Typically, Servita would co-define an exit strategy with the client, capturing the details and protocols that will be followed at contract end. Data extraction forms part of the strategy, ensuring we fully meet client expectations.

To protect data integrity and security, users are asked to provide requirements for how the data is extracted and stored in a way that complies with industry best practice and Government security policy.

Servita will support the entire data extraction process, including any reconciliation checks between source and target databases should they be required.

Constraints

A typical Kubernetes release often comes with approximately 1 year of patch support as standard. Any upgrades to this package, which include longer timeframes of patch support, may incur a one-off upgrade fee (as below).

- AWS EKS Extended Support: Extends the support window to 24 months total (an additional 12 months beyond standard). This ensures your environment remains secure and compliant even if you cannot immediately perform a major version upgrade.
- Azure AKS Long-Term Support (LTS): Also provides a 2-year support window for specific versions, facilitating stability for highly regulated environments.

A further constraint surrounds the fact that Servita cloud environments can be fully private and secure. This means that the client may need to set up a site-to-site VPN in order to access private cloud resources.

System Requirements

1. Middleware licensing (if any) to be covered by the client
2. Minimum of 2 EC2 nodes
3. Access to the system requires an internet connection
4. System requires either AWS, GCP or Azure cloud hosting accounts
5. System requires Ambassador for Kubernetes deployment services
6. System requires GitLab

Governance Standards

Servita has a wealth of experience in delivering products and services to UK Government. Our Platform-as-a-Service offering is designed to fully align with UK Government standards and initiatives including:

1. GDS Service Standard (CDDO)
2. Accessibility WCAG 2.2 AA
3. Technology Code of Practice
4. Cabinet Office Spend Controls
5. NHS DSP Toolkit Registered

6. FHIR v4 UK Core Compliant API's

Security

Our platforms adhere to our Information Security Policy, and our policies and platform services are ISO 27001 and Cyber Essentials Plus certified. Our DevOps and Cloud Support Engineer teams are BPSS cleared as minimum, with all production-handling engineers holding SC Clearance. All our Engineers are trained in Data Protection Act (DPA) regulations and regularly attend refresher courses. We ensure GDPR compliance, and our consultants are extremely proficient at identifying and nullifying security risks.

Support Model

Standards

Servita operates a mature Service Management model aligned to industry best practice, not only through formal certification but through demonstrable, high-quality operational delivery. Our approach is designed to support national-scale services with high availability, regulatory compliance and robust cyber security.

We combine structured governance with continuous operational oversight to ensure services remain secure, performant and aligned to evolving client and regulatory requirements. This is delivered through a tiered assurance and improvement cycle:

- Real-time / Daily: Automated security scanning, vulnerability management and performance monitoring through our DevSecOps dashboard, enabling proactive identification and remediation of risks.
- Monthly: Service Performance Reviews led by a dedicated Servita Service Delivery Manager (SDM), reviewing KPIs, SLAs, incidents, capacity trends and technical debt, with agreed improvement actions.
- Quarterly: Strategic roadmap alignment sessions involving our Head of Technical Services and the client's Product Owner, ensuring the support model and architecture evolve in line with business priorities, cloud platform changes and legislative requirements.
- Annually: Independent external audits against ISO 9001, ISO 20000 and ISO 27001, providing assurance that our processes and controls remain aligned with global best practice.

All ongoing managed support services are aligned to ITILv4 and the service management team is ITILv4 Certified.

Certifications and Registrations

- Cyber Essentials Plus
- ISO 27001 UKAS accredited
- ISO 9001 UKAS accredited
- ISO 20000 accredited
- ISO 14001 accredited
- JOSCAR

- DSP Toolkit <https://www.dsptoolkit.nhs.uk/OrganisationSearch/R5Y3C>
- Clinical Safety standard compliance – DCB1029, DCB0160

Support, Compliance and Assurance

After Sales Support

After sales support can be provided subject to requirements.

Standard operating hours for Servita's Central Cloud Support Engineer capability are 09:00 to 17:00 during UK weekdays, excluding bank holidays.

Hypercare packages are available post-handover and can be delivered remotely. Clients can work with Servita Account Managers to define an after- sales support package that best suits the technical, business and operational needs of the organisation.

Testing: Servita testing and QA Engineering

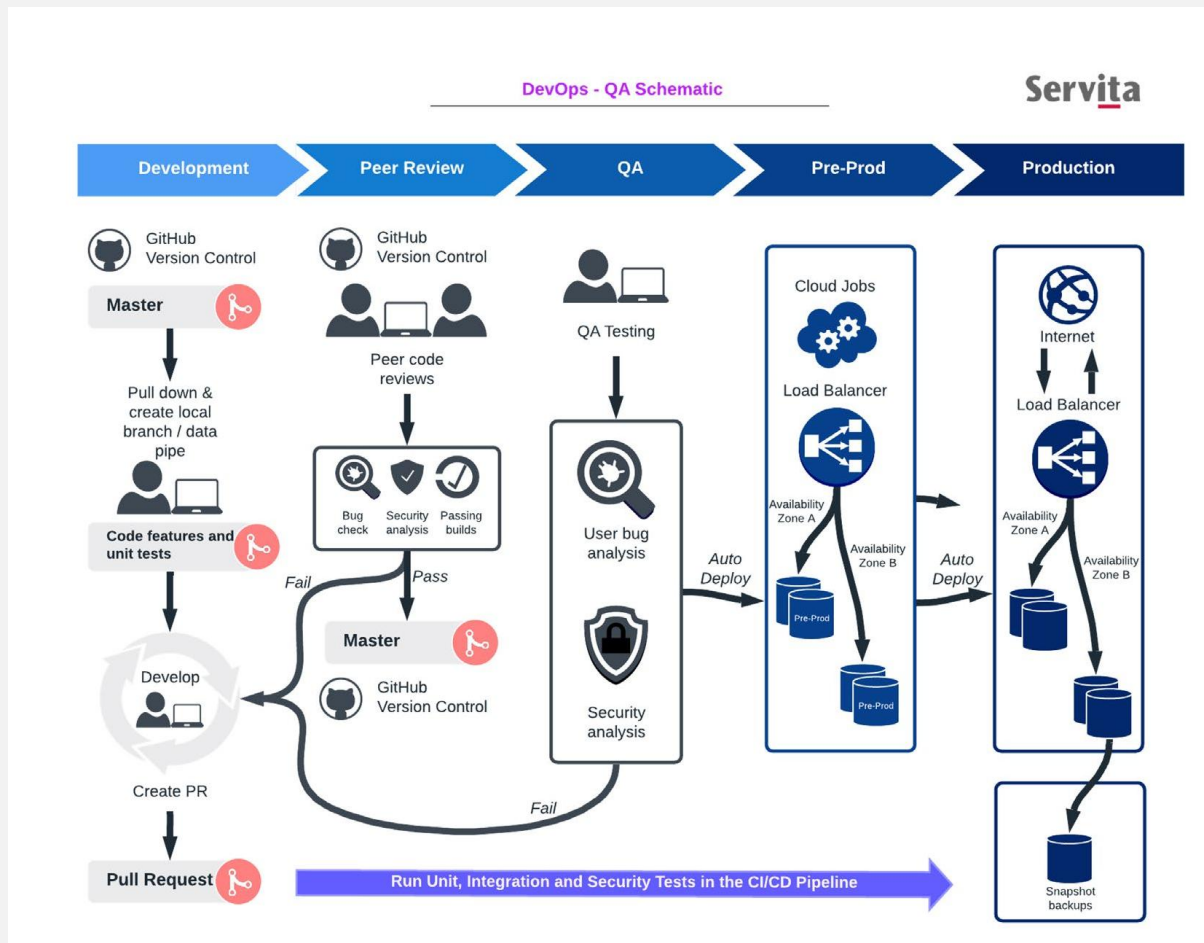
Our mission in testing is to automate as much as possible, utilising the latest tools and techniques in Test Driven, Data Driven and Behaviour Driven Development.

For the Configuration Management Database, 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 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 categorise 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 BI analytics involve aggregating data from backend services into a single database, potentially for use with Power BI.

Automated Testing:

Validate the user journey, including functionality and 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.

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.

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.

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 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.

Testing: Provider Onboarding and Integration Assurance

Servita have developed EvA (Expected versus Actual) – a powerful integration test automation tool for integrating external systems at a national scale.

EvA not only enables Provider/Onboarding Suppliers to rapidly assure their integrations to the platform with Servita's large test datasets, it also:

- Automates source code deployments associated with connectivity testing
- Enables automated environment config set-up required for integration testing
- Gives multi-select options for Providers/Onboarding parties to run different sized test data packs from 10 – up to 10m patients with multiple variations of edge cases, referrals, appointments and pathway combinations, environmental, socio-economic and environmental datasets

Once the test packs and integration test scenarios have been run via the tool, EvA then has the intelligence to provide a test report which categorises expected vs actual results into Pass, P1, P2 or P3 failure categories.

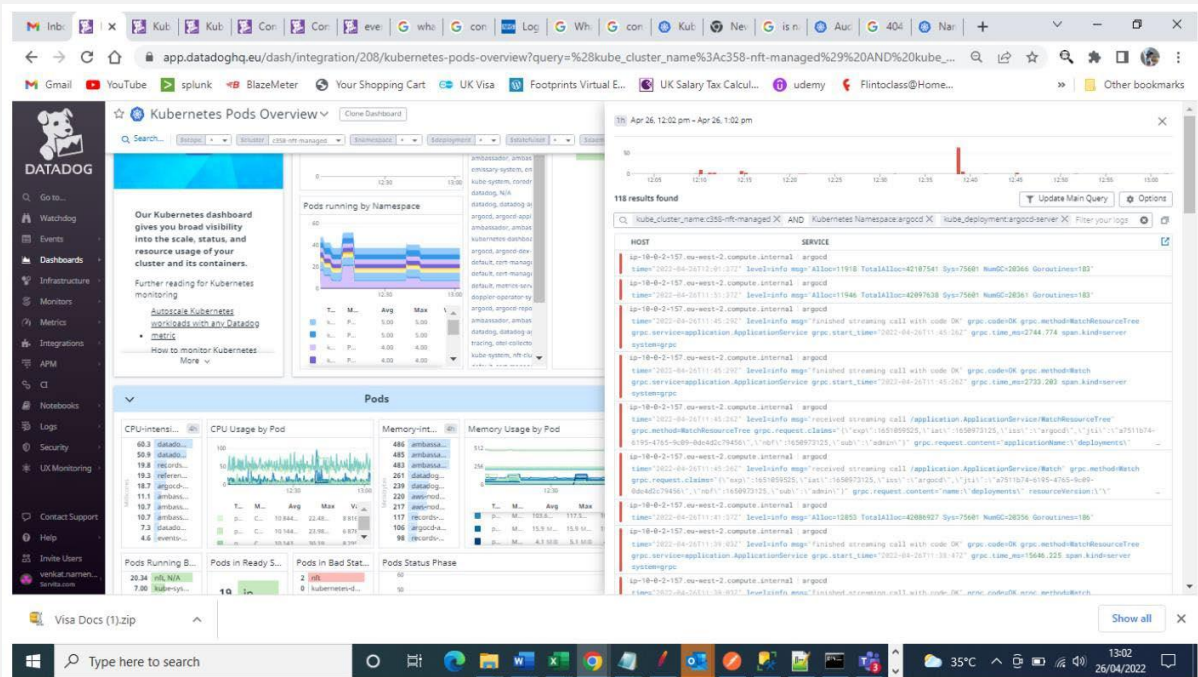
The recording provided demonstrates EvA being used with the National Patient Aggregator, one of Servita's government grade, mission critical data platforms built and maintained on behalf of NHS England. You will see EvA being used to automate:

- Run source code deployment
- Environment config
- Test data packs
- National identity token issuance
- API Integration assurance

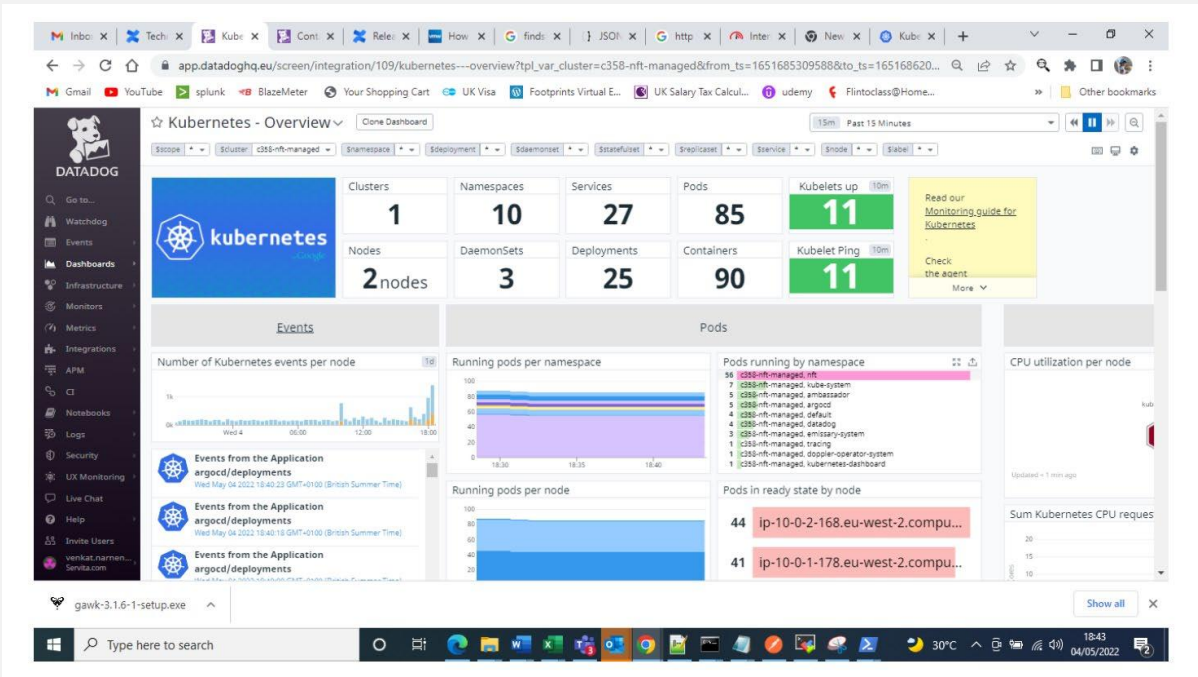
EvA can easily and rapidly be configured to cohere with the customer landscapes.

Testing: Testing Across the Full Stack

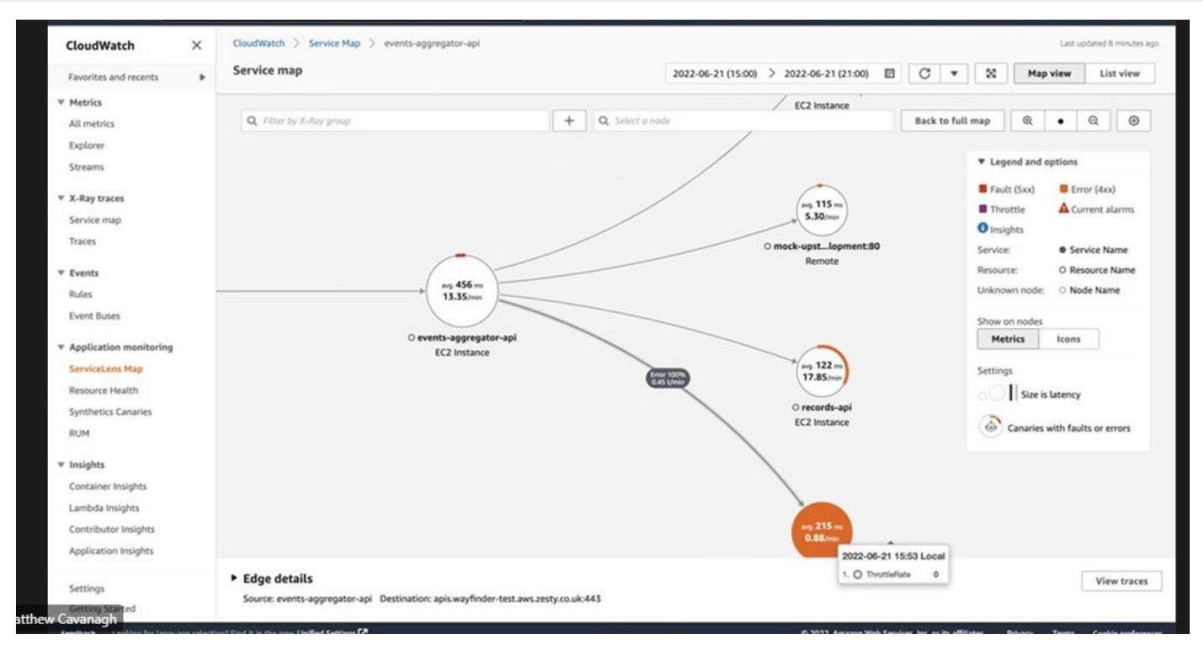
The Servita Test Team have invested a lot of time into making all back-end and full stack testing automated and with appropriate coverage. The standards set have put the onus on onboarding teams from the outset to adopt structured and in-depth testing across the requisite phases



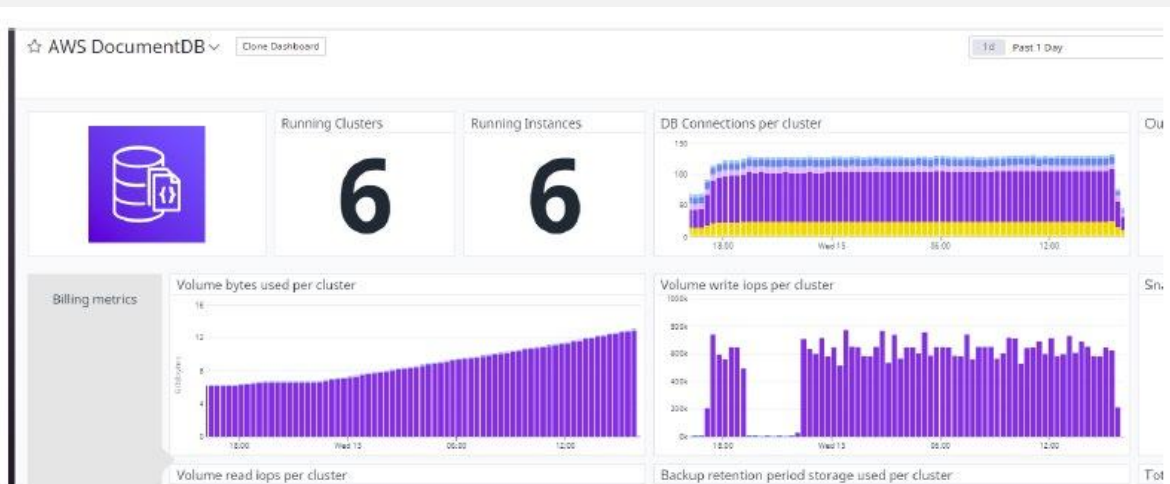
Clinical Safety Test Packs



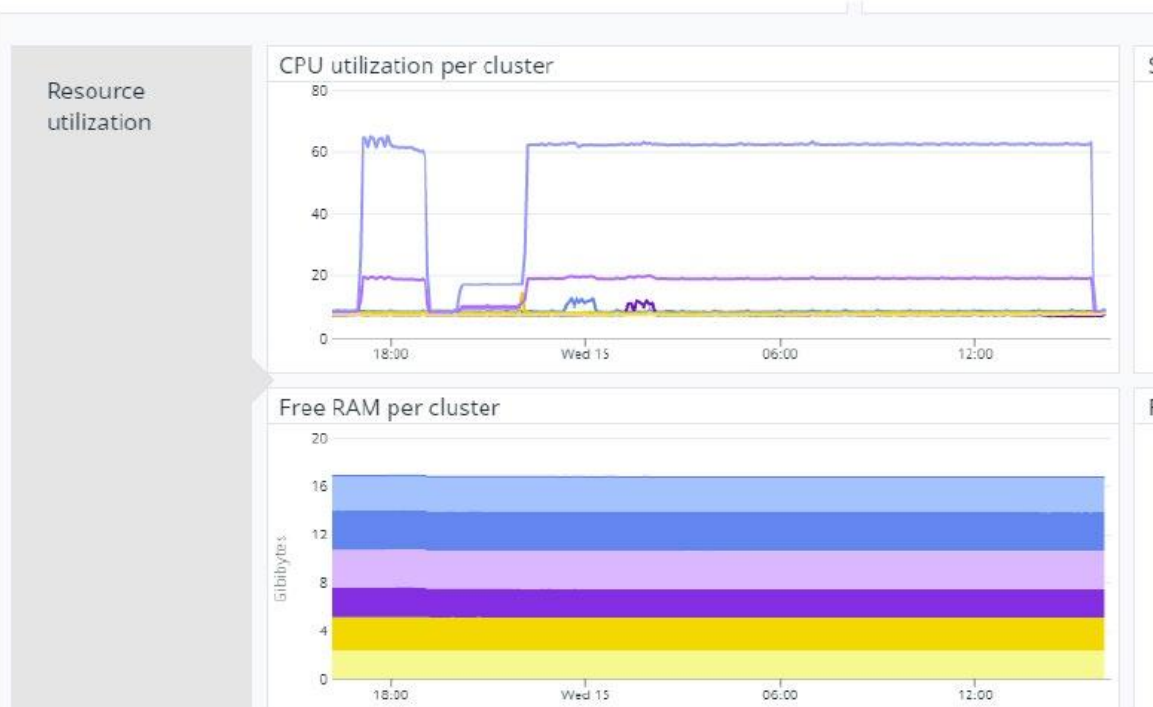
Regression packs for functional and non- functional testing



Trace ID Logging OAT Tests and automation with Security Operations Centre



DocumentDB shows a steady increase in bytes used



DocumentDB CPU utilization was around 60%

Performance test packs for integration and e2e testing

Hypercare

Servita employs an Early Life Support (ELS) Framework designed to bridge the gap between development and business-as-usual (BAU). Our model provides a benchmark for transition assurance, ensuring that technical delivery translates into a high-performance, stable managed service.

Our ELS methodology is structured around seven pillars of operational readiness:

- **Resource Readiness & Competency Assurance:** We mandate a rigorous assurance process to verify that all Service Management personnel are fully

mobilised, SC-cleared (where required), and have completed a bespoke training programme tailored to the specific technical and clinical nuances of the solution.

- Knowledge Transfer & Service Simulation: Prior to deployment, we execute a structured handover of all technical artefacts and architectural documentation. We facilitate "Joint Service Simulations" (desktop walkthroughs) of diverse incident types to map organisational touchpoints, define clear accountabilities, and validate escalation paths for every incident severity level.
- Standard Operating Procedures (SOPs): We ensure all supporting Operational Runbooks are developed, version-controlled, and have been through a cycle of rigorous "failure-mode" testing to ensure they are fit for purpose.
- Interfacing System Rehearsals: To ensure end-to-end stability, we conduct collaborative incident scenario workshops involving both internal teams and interfacing third-party service providers. These outputs are validated through multiple rounds of "Service Dress Rehearsals" to ensure seamless cross-organisational incident resolution.
- Automated Integration & Interface Assurance: Servita deploys its proprietary Integration Testing Tool alongside high-fidelity synthetic test data. This allows us to prove complex interface configurations and validate data flows without risking PII, significantly reducing the testing burden on third-party solution providers.
- Operational Acceptance Testing (OAT) & CD Validation: Our OAT phase includes a meticulous audit of the Continuous Deployment (CD) pipeline. This assures the client that the system will operate within pre-defined performance parameters and that automated deployment controls are resilient and secure.
- Stability Overlap & Proactive Performance Monitoring: To ensure a zero-loss knowledge transfer, we maintain a minimum three-month overlap between the development/project management resource and the ongoing support team. This period is governed by daily "Service Health" oversight calls to monitor system performance and drive proactive incident resolution before end-users are impacted.

Support Model

Release and Deployment Management

We plan for the deployment of software releases, including scheduling, resource allocation, and risk assessment. This includes considering the impact of the release on existing services ensuring minimal user disruption.

- Version control
- Testing and validation in path to live environments
- Tried and tested rollback strategies
- Clear documentation and communication

Problem and Incident Management

We ensure swift identification and resolution of any issues or incidents that arise within the cloud infrastructure. This includes establishing protocols for addressing technical glitches, downtime, or any other disruptions

- Incident analysis to create problem records in our ITSM toolset for resolution of known errors
- Separate major incident process for any mission critical incidents
- Weekly problem review to track progress to resolution
- Agreed SLAs in place for turnaround time on relevant items
- Spun up internal on-call squad to ensure 24/7 monitoring

Backup and Disaster Recovery

We will set up regular data backups and establish a comprehensive disaster recovery plan to ensure that data can be restored in case of unexpected data loss or system failures.

Compliance Management

We ensure that the cloud-based solution complies with relevant industry regulations and standards. This involves staying updated with compliance requirements and implementing necessary measures to meet regulatory obligations.

In addition, we use CKS accredited DevSecOps Engineers to undertake quarterly platform reviews which focus in-depth on known threat actors and attack surface, ensuring advanced in-built security of the platform for the full lifecycle. Our use of CKS accredited engineers provides clients with a specialised tier of expertise focused on protecting containerised workloads throughout the entire lifecycle, from the first line of code to the live production environment, covering cluster hardening, scanning and analysis of the CI/CD pipeline.

Data Security & Compliance: Cyber Security

Cyber Security

Servita take Cyber Security and Data Protection extremely seriously. As an organisation that provide government-grade, mission critical data integration platforms, it has become part of our core business to ensure we stay ahead of cyber threats and continually invest in new ways to protect data in transit and at rest:

- We support industry standard user and system authentication patterns including SAML, mTLS and OAuth for secure authentication and token-based access control.
- We adhere to globally recognised national data legislation including ISO, JOSCAR, GDPR and HIPAA.
- We have automated collections in our regular DevSecOps routines that prime data compliance reporting (file and activity monitoring).
- We have pre-built compliance reports that map to standards such as HIPAA, capable of identifying spurious activity, e.g. DBA access rights, table configs, IP address logins, to enable early mitigation.

- Identity and Access Management (IAM) is configurable from a central identity store. SSO and MFA are fully supported and our platforms provide seamless integration options for provisioning or deprovisioning enterprise systems access.
- Our encryption and pseudonymisation techniques provide a robust line of defence. Data encryption at rest forms part of our standard DevSecOps practice.
- Our service management and observability demonstrate complete control and granular monitoring of access rights, RBAC and trace ID logging such that any breaches can be rapidly diagnosed and isolated.
- We favour secure tooling such as Doppler for secrets management and have a wealth of experience in highly secure authentication patterns including our own bespoke authentication and identity verification solutions. This is supported by cutting edge cryptographic solutions, many of which are in use today to support major government secure services.

Security Operations

As members of the ADS Group and a workforce comprised of UK National Security Vetted (SC-cleared) engineers, Servita provides a partnership strategically aligned to the UK's highest defence and security standards. This membership ensures the service is informed by the latest national threat intelligence, while the 100% SC-cleared status removes the operational delays and risks inherent in handling sensitive government data, ensuring the project meets "Official-Sensitive" requirements from day one.

The service is built on a foundation of "Shift-Left" security, where CKS-accredited engineers integrate automated vulnerability checks and pod scanning directly into CI/CD pipelines. This technical rigour protects the digital estate from modern container-based threats by acting as an automated service that identifies and remediates flaws before they reach production. For the client, this translates into a hardened infrastructure that reduces long-term maintenance costs and adheres to the strictest Cyber Essentials Plus and ISO 27001 standards.

To eliminate the human errors that account for the majority of data breaches, Servita deploys secure, automated Lambdas to manage key recycling and rotate privileged access passwords after every use. This Zero-Trust architecture ensures that compromised credentials have a negligible window of opportunity, providing the client organisation with a high-integrity access model without the administrative overhead of manual security hygiene.

Servita addresses the resilience of mission-critical services through regular threat modelling sessions and incident scenario dress rehearsals that turn disaster recovery into a proven "muscle-memory" response. By combining these proactive simulations with thorough, verified backup testing, the firm ensures that data remains available and recoverable even in the event of a sophisticated cyber-attack.

The digital estate is protected by continuous, granular monitoring of network and endpoint security, supplemented by specialised independent penetration tests that target the unique vulnerabilities of Kubernetes and Serverless platforms. By including

quarterly internal reviews and annual third-party audits as a standard component of the service, Servita provides the client with a continuous "clean bill of health" and an evidence-based assurance trail.

Outage and Outage Management

Servita place our clients at the heart of everything we do, ensuring any outages are reported reactively and appropriately. In order to ensure that all clients are fully informed on any details surrounding service provision, we will report all outages promptly in the following forms:

- SMS
- Email alerts
- Webhooks
- Public dashboards if required. This option will incur an additional cost

Outages are reported to the client immediately, with service recovery updates provided at least once every 30 minutes. Service recovery updates may be provided by our Cloud Support Engineers via phone, SMS or email.

Hosting Options and Locations

Our PaaS is available on either AWS, GCP or Azure Cloud computing services. Available hosting locations are London, Republic of Ireland, 3 EU, US, UAE and Asia. Servita have offices in London, Leeds, Dubai and Singapore.

Our Social Value Approach

- 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

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.

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.

Solution

Collaborative Delivery

Servita provided a team of advanced data engineers, skilled in cutting-edge design, data analytics, and development technologies. They worked closely with NHS Digital teams, aiming to upskill the workforce in new approaches and technologies. Key initiatives included:

- Highly collaborative ways of working
- Building a knowledge base using Jira-Confluence
- Leading daily stand-ups, retrospectives, and sprint processes
- Conducting drop-in sessions for learning in advanced Python, PySpark, and Databricks

- Representing NHS Digital to customers, including NHS England, for user adoption of new technologies

The state-of-the-art solution, built in Python and Databricks on Amazon Web Services (AWS), greatly surpasses the legacy platform's processing capability and is highly scalable. Servita also onboarded the main datasets, including Community Services and Improving Access to Psychological Therapies, before handing over the ongoing dataset onboarding activity to the incumbent NHS Digital team.

Impacts

Unprecedented Data Insights and Cost-Efficient Cloud-Based Solution

The transformed DAE enables NHS Digital to apply AI algorithms to vast amounts of data, providing users with unparalleled data insights. This significantly improves patient health and care while enhancing the nation's ability to research and diagnose life science challenges. The cloud-hosted solution is cost-effective, and the NHS Digital workforce is now competent in Python and complex dataset analysis using Databricks.

Servita's work has further solidified their reputation for data engineering and delivery excellence within NHS Digital and NHS England, driving healthcare innovation and outcomes.

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.

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.

A Pioneering Virtual Ward Solution for NHS Health Call

Situation

Revolutionising Patient Care with Virtual Wards

NHS Health Call aimed to develop a ground-breaking and innovative Virtual Ward solution that could be offered to NHS organisations throughout the UK. This solution was envisioned to provide a secure, dependable alternative to treating and monitoring patients in the already capacity-challenged NHS inpatient wards.

The solution offered an innovative alternative to traditional bedded care, enabling NHS clinicians to deliver hospital-level care and support people from their homes, including care homes. Patients could be physically discharged from the hospital to their homes, with their care and clinical responsibility remaining with the hospital until clinical discharge.

Solution

Co-creation of an Adaptable Virtual Ward Solution

Servita was commissioned to co-create and build the solution with NHS Health Call and to produce the product while providing expert support. Together, we developed a fully flexible, customisable virtual ward solution that can be adapted to meet clinical and patient needs.

This solution can alleviate the pressure on health and care services, shorten the average length of stay in hospitals, reduce pressure on beds, and offer a new level of intermediate care. It can also revolutionise how community care is delivered.

The virtual ward service offers all the same features and benefits as a physical ward. This hybrid solution is designed to provide the best possible care for patients while avoiding hospital readmissions.

Impacts

Safe, Secure, Reliable and Scalable Virtual Ward Platform

The product of our collaboration is a safe, secure, reliable and scalable Virtual Ward platform that provides a range of benefits. These include:

- Enabling patients to recover in their homes amidst their comforts and family
- Allowing patients to receive hospital-level care at home
- Supporting early discharge from the hospital
- Reducing the length of hospital stays
- Avoid hospital admission with step-up care
- Improving patient experience

Empowering people to manage long-term conditions remotely

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 strain on the inpatient wards of the NHS.