



G-CLOUD 13

BJSS Services

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WE'RE THE LEADING TECHNOLOGY AND ENGINEERING CONSULTANCY FOR BUSINESS

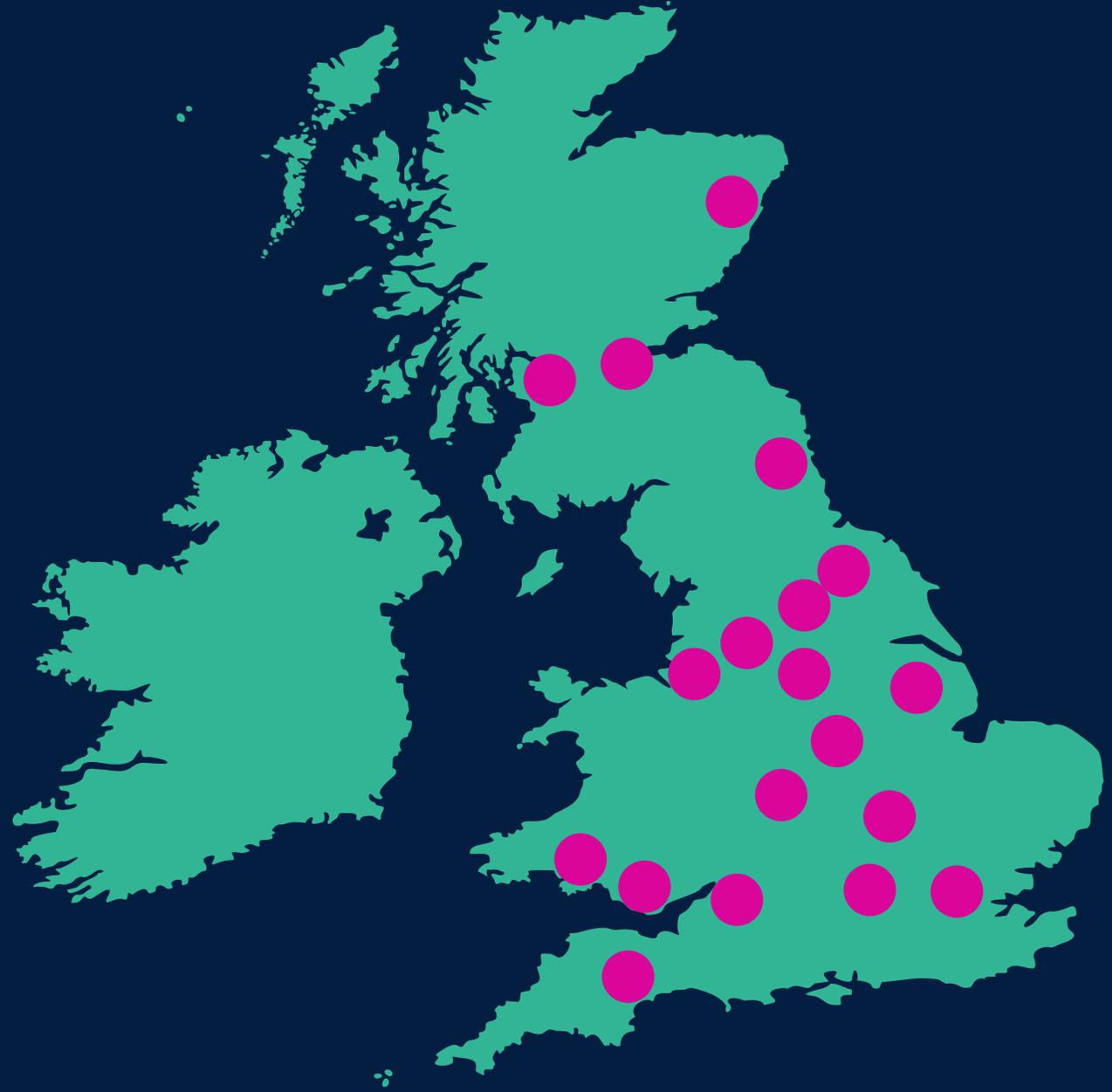
We work with some of the world's largest organisations to transform their businesses by delivering solutions used by millions of people every day.

- > Founded in 1993
- > 29 years of award-winning delivery
- > Over 2,000 skilled people
- > 25 locations across the UK, USA, Europe and Australia
- > AWS Public Sector Partner of the Year
- > Microsoft Gold Partner



SERVICING CLIENTS WITH OFFICES AND PROJECT CENTRES ACROSS THE UK

- > Aberdeen
- > Birmingham
- > Bristol
- > Cardiff
- > Edinburgh
- > Exeter
- > Glasgow
- > Leeds
- > Lincoln
- > Liverpool
- > London
- > Manchester
- > Milton Keynes
- > Newcastle
- > Nottingham
- > Reading
- > Sheffield
- > Swansea
- > York



WHAT MAKES US DIFFERENT

For almost three decades we've delivered high quality, world-class technology solutions to the world's leading companies. We deliver complex enterprise software by aligning engineering, advance technology, user-focused design and our collaborative delivery approach.

We focus on relationships. Our customers trust us because we're open and honest. The quality of our work and the culture and resilience of our people make us the **obvious alternative** for clients. We're straightforward in all we do.

Our flexibility, adaptability and commitment to delivery excellence helps us succeed in the most demanding and complex environments. Our flexibility, commitment to technical excellence and absolute focus on outcomes mean that we routinely succeed where others have failed.



29 Years of Award-Winning Delivery

Established in 1993, BJSS is renowned for technical excellence, cost-effective delivery and its proven Enterprise Agile approach.



People and Culture

Our talented people drive how we deliver high quality, successful and sustainable outcomes.



The BJSS Academy

Every year we prepare over 200 graduates, apprentices and placement-year students for their careers in technology delivery.



Armed Forces Covenant

Having signed the covenant in March 2017, we recognise the value that service people, reservists, veterans and military families bring to our business.



Trusted in the Public Sector

Since 2012 we've worked with 30 public sector organisations. The NHS is currently our biggest single client.



Corporate Social Responsibility

We improve the long-term prospects for children in under-represented groups and promote diversity. Over 10,000 young people have already benefited from our programmes.

WHAT MAKES US DIFFERENT



We're part of the **Northern Powerhouse** Partners Programme to make the region's great cities, towns and communities a powerhouse of the UK economy. BJSS has delivered several significant projects in the region, including a global platform that processes 60 per cent of the world's foreign exchange trades, and the complete re-engineering of the NHS legacy Spine national healthcare infrastructure, saving the NHS £21million in its first year of operation.



As a signatory to the **Scottish Business Pledge**, BJSS has demonstrated its commitment to ethical business practices and supporting the Scottish Government's aim of achieving greater equality, sustainability and innovation within the Scottish economy. BJSS has already delivered a large-scale IT transformation project for a major Scottish client, Disclosure Scotland, an Executive Agency of the Scottish Government.



The UK Government's **Disability Confident** scheme helps organisations to think differently about disability, and improve how they attract, recruit and retain disabled workers. BJSS is committed to recruiting and retaining people with physical or mental conditions that have a long-term and substantial effect on their daily lives.



BJSS was the 2019 **AWS** Public Sector Partner of the Year. This recognised BJSS' commitment to AWS customers and is testament to the expertise of the company's delivery teams and its investment in AWS technology. BJSS has completed many AWS-based engagements across the UK Public Sector over the past several years, including significant deliveries for the Home Office, DVSA, Disclosure Scotland, and the NHS.

OUR MISSION AND VALUES ARE SIMPLE

Our mission is to be the number one partner for our customers to trust to deliver the complex technology solutions they need to transform and thrive. We achieve this by nurturing talented people and being straightforward to work with.

Established when BJSS was founded, our values remain unchanged, they continue to define us. Technology and culture underpin market beating performance.



Professional Excellence

We always aim to deliver outstanding quality of work, regardless of role.



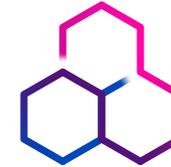
Delivering Great Outcomes

We share a passion to excel and an absolute focus on delivery.



Innovative Thinking

We differentiate BJSS by always looking for 'a better way' and taking new approaches to engagements.



Collaboration

Our interactions with colleagues and clients are collaborative and respectful.



Long-term Relationships

We build lasting client relationships by establishing real working partnerships and keeping our promises.

ONE COMPANY, TWO BRANDS

Both defined by quality, innovation and delivery - BJSS is renowned for engineering excellence, while SPARCK, our design agency, sits at the core of our business.

The BJSS logo features three vertical bars of increasing height to the left of the lowercase letters 'bjss' in a white, sans-serif font, all set against a dark blue rectangular background.

BJSS was created when a talented team of software engineers had a shared vision of delivering IT solutions in a better way. We focus on the technical excellence of our people and a client-obsessed delivery culture.

The SPARCK logo consists of a white asterisk symbol followed by the word 'SPARCK' in a white, uppercase, sans-serif font, all set against a dark blue rectangular background.

In 2016, our design brand, SPARCK was born. A group of thinkers, innovators, strategists, researchers, designers, makers and do-ers. They combine the design skills of a creative agency with the technical quality and delivery capability of BJSS.

WE WANT A BALANCED TECH SECTOR THAT IS FILLED WITH OPPORTUNITIES

We are doing our bit by inspiring young people to participate in our industry. We are creating new opportunities for future innovators, creative thinkers and problem-solvers, and we are taking positive action towards improving diversity.

We engage local grassroots community organisations in our office locations to deliver sustainable programmes that support our community development themes of **Youth and Technology**.

Our programmes improve the long-term prospects for underrepresented groups by boosting confidence, employability and digital skills, and they promote diversity in the sector.

- > 10,000 school children benefited from the BJSS workshops
- > 5,200 young women introduced to careers in technology
- > 8,700 new opportunities for children from disadvantaged backgrounds



WINNER OF THE QUEEN'S AWARD FOR ENTERPRISE (INNOVATION)

We hold a prestigious Queen's Award for Enterprise in the Innovation category for our Enterprise Agile delivery approach.

Enterprise Agile was the first approach to enable organisations with complex IT needs and a low risk appetite to use agile without compromising their controls or governance practices.

The award follows a rigorous and highly competitive judging process and is recognised as the highest official accolade that a UK business can receive.



THE QUEEN'S AWARDS
FOR ENTERPRISE:
INNOVATION
2018



WE WORK WITH A BROAD RANGE OF PUBLIC SECTOR ORGANISATIONS



Driver & Vehicle
Standards
Agency



Home Office



Department for
Business, Energy
& Industrial Strategy



Disclosure &
Barring Service



Department
for Work &
Pensions



Department
for Transport



HM Courts &
Tribunals Service



United Kingdom
Hydrographic Office



Foreign &
Commonwealth
Office



UK Export
Finance



Public Health
England

Disclosure
SCOTLAND



Innovate UK

HS2

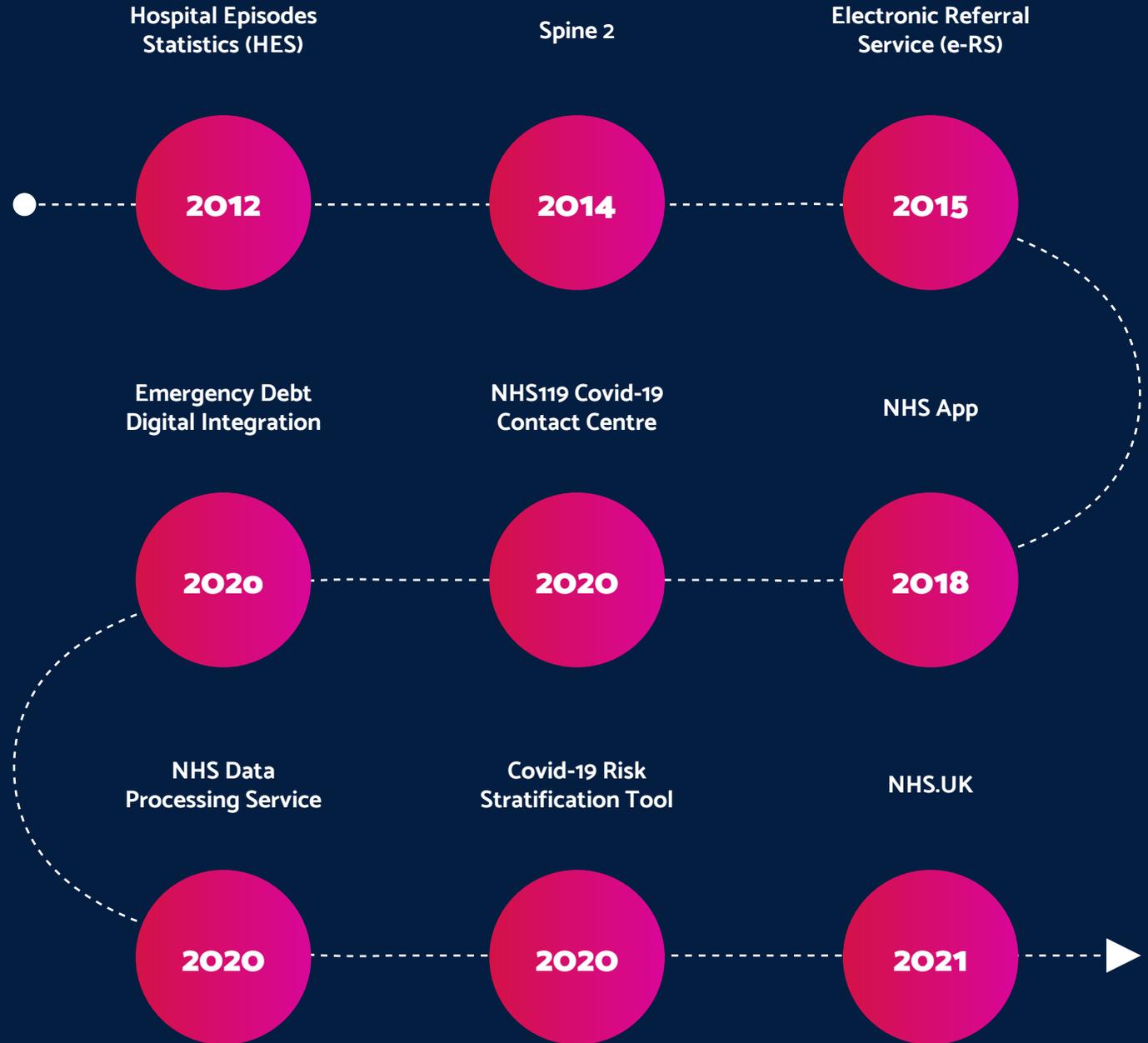
NATS

WE'VE BEEN PARTNERS WITH THE NHS FOR 10 YEARS

BJSS is a trusted consulting and delivery partner for the NHS, leading and supporting their transformation agenda with experience ranging from delivering critical national infrastructure to customer-facing digital products. BJSS has the ability to harness the true potential of technology to transform care, free up clinicians' time and empower patients.

“Like the NHS Spine, which was redeveloped two years ago, the NHS e-Referral Service is benefiting from new software and agile working. Together, the systems have saved the NHS more than £70million, demonstrating the ways in which technology can benefit the NHS.”

Beverley Bryant
Director of Digital Transformation
NHS Digital (2016)



WE HAVE EXTENSIVE EXPERIENCE OF WORKING TO GDS STANDARDS

- > Cross-project assurance built into delivery practice, with expertise provided across the Service Standard
- > Over 40 successful GDS assessments.



CASE STUDY

Helping to keep UK skies safe

Drones have never been more affordable and the number of them flying in UK skies has increased dramatically. To help manage this the UK Government has introduced the Drone Registration and Education Scheme (DRES), which will require all those operating drones or model aircraft to register with the Civil Aviation Authority, and for remote pilots to take an online safety test.

BJSS, in collaboration with the client, developed a new service to support DRES. The service was made available for the public to register their Drones in compliance with new legislation, with all drone operators and pilots required to register too.

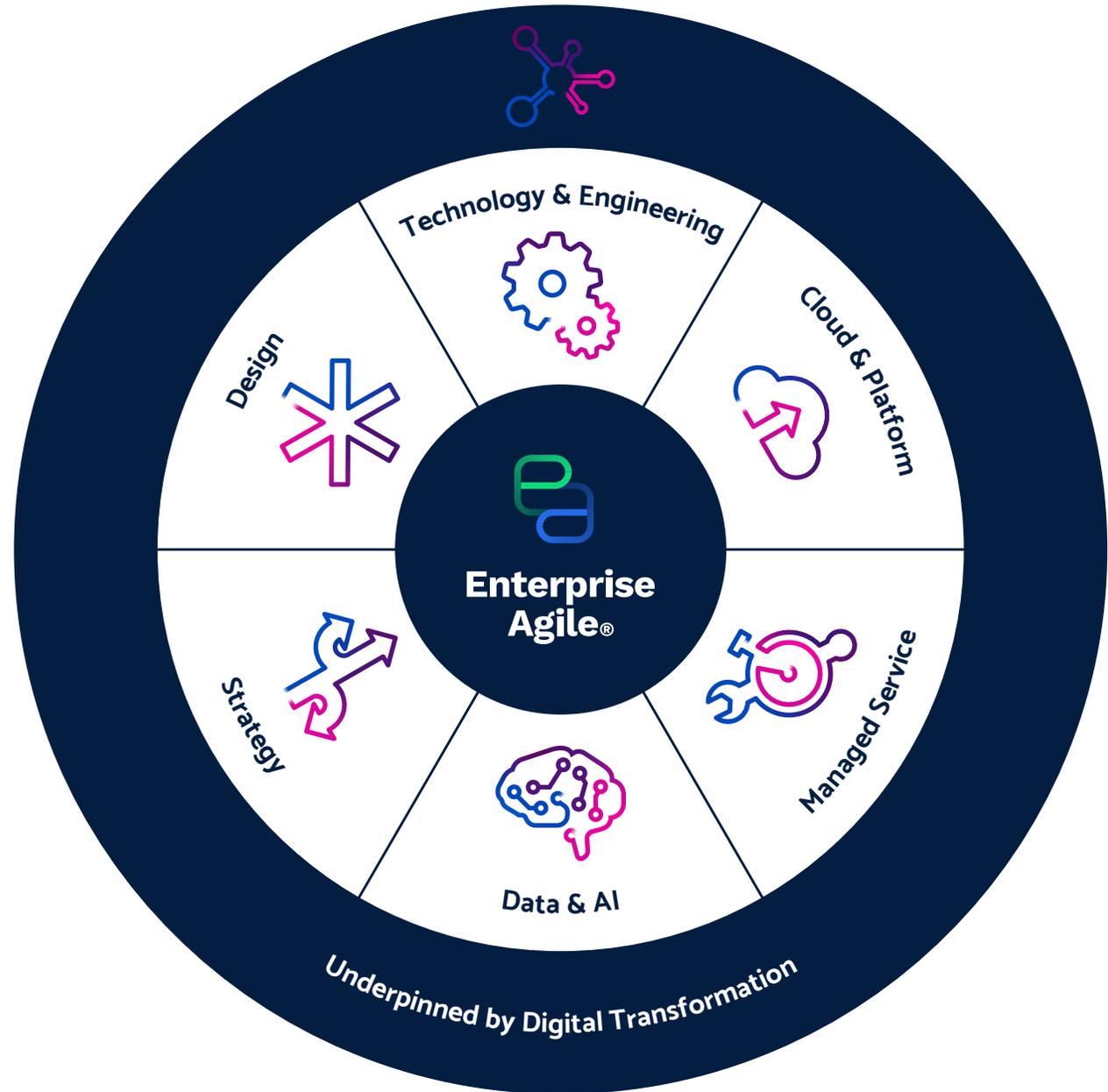
Adopting the Enterprise Agile approach, the development of this UK-wide service progressed at pace, receiving GDS approval for both the Discovery and Alpha phases. The service was tested with users and iteratively developed based on their feedback. The final product, which was built on GOV.UK PaaS, was made available a month in advance of the DRES becoming law.



OUR SERVICES

By combining research, strategy and technical delivery, we enable transformation through end-to-end solutions that deliver real results. Here are our Service offerings for G-Cloud 13, which are detailed over the following pages.

Everything that we do is designed to drive your digital transformation journey. Our services help you digitise services, deliver new digital products and services, and transform your delivery capability.



SERVICE

Digital Transformation

We partner with our customers to digitally transform the way they work and serve their customers. Within this service there are twelve microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.



CASE STUDY

Rebuilding NHS Spine



NHS Spine goes from strength to strength, with new digital services and supporting more transactions than ever before.

NHS Spine is the world's largest public healthcare platform and forms part of the UK's critical national infrastructure. It supports major NHS business applications, providing interoperability and the sharing of data across various healthcare systems. BJSS managed a major programme to rebuild Spine, securely transferring the entire NHS onto this new, improved system.

The legacy system was unwieldy and costly to maintain. It comprised a very large bespoke codebase, many servers and other hardware that relied on a large number of complex underlying software components, all of which were proprietary. The requirements were clear: build and deploy a replacement system to reduce development, support and license costs, and increase reliability, performance and resilience.

As the strategic delivery partner for NHS Digital, BJSS was engaged to completely re-architect, re-engineer and rebuild Spine using open-source products and agile ways of working.

The system uses open source rather than commercial products and was delivered iteratively using the award-winning Enterprise Agile® approach. This facilitated a rapid delivery, allowing for greater cost savings and reliability, and removing vendor lock-in. Spine is based on 12 open-source products, ranging from databases to developer tools. These software products are proven on an Internet-scale, offering a viable alternative to commercial packages while delivering significant capital and operational cost savings.

Automation is integral to the ability to support rapid and cost-effective change. Spine now includes comprehensive end-to-end test, deployment, service recovery and

operational automation. This has resulted in a significant reduction in administrative overheads in comparison to the legacy system and has made it easier to make changes to the system.

The system's new codebase is more efficient and easier to maintain, delivering a tenfold improvement in performance despite requiring just one-tenth of the legacy system's infrastructure.

Processing over one billion transactions – more than four times the average load on the UK's entire debit and credit card transaction system

With virtually no disruption or downtime, BJSS and NHS Digital delivered a major programme to rebuild Spine using open-source products, securely transferring the entire NHS to this improved system and delivering increased reliability, performance and resilience, and dramatically reduced costs. Resourcing and operational costs have been reduced by over £21m per year thanks to commodity hardware and open-source software. With the new system in place, the NHS is now able to respond more quickly to change.

Spine now supports over 500,000 health and social care workers in England and processes over one billion transactions every month – more than four times the average load on the UK's entire debit and credit card transaction system. At peak, the system processes 3,500 messages a second – a number which is increasing as support for more digital services is added.

CASE STUDY CONTINUES ON NEXT PAGE

Spine makes it easier for NHS staff and third parties to securely share information between services such as the Electronic Prescription Service, Summary Care Records (SCRs) and the e-referral service (e-RS). BJSS has been closely involved in the integration of these services and the development of new digital services which can be rapidly built thanks to a fully supported set of APIs. For example, a new digital service for the London Ambulance Service has been developed to enable paramedics to securely access SCRs when in the field. Paramedics can access SCRs via their iPads, without the need for a smartcard or N3 (the secure national broadband network for the NHS), connection by authenticating using the new NHS Identify service. This is just one example of how NHS Spine enables the rapid development and integration of new digital services. BJSS continues to support the integration of fresh innovation that adds further functionality to Spine. This, in turn, is creating a more connected NHS and better patient experience.

All linked services rely on data managed by Spine, including; 65 million Summary Care Records and 92 million personal demographic records generated by 28,000 healthcare IT systems in 21,000 care organisations across the country. As a result, health and social care workers have greater and secure access to the critical patient information they need to deliver a high standard of care. Authorised third parties such as pharmacies, also have access to this secure data via the Electronic Prescription Service, which makes the prescribing and dispensing process more efficient.

Generating significant cost and efficiency savings for the NHS

According to NHS Digital, since the Spine system went live it has helped to save over £130 million for the NHS. Additionally, 750 working hours per day are saved, helping the NHS to improve its response times by 90%. These cost and efficiency savings are crucial to the health service's ability to reinvest in vital front-line services.



Digital

CASE STUDY

Addressing user needs for seamless Electronic Appointment Booking, Referrals & Management in the NHS

The NHS has a vision to deliver “a fully operational any-to-any booking, referral and appointment management ecosystem for health and social care that is efficient, effective and scalable.”

The process of booking, referrals and appointment management (BRAM) is a routine activity across the NHS, with over 120 million appointments made in England each year. However, the mix of BRAM tools, standards, architecture and functions in place across the NHS and social care created significant challenges for those delivering and receiving services.

In 2019, the UK Infrastructure and Projects Authority was commissioned by NHSE&I to conduct a strategic review of bookings and referrals. Several recommendations were made, one of which was to better understand users’ needs across the system.

To address this, a small NHSX/NHSD team, led by the NHSX CTO, was stood up to carry out a pre-discovery and discovery into the existing digital ecosystem and understand future needs as the NHS sought to transform BRAM across primary, community, secondary, and tertiary care.

BJSS was asked by NHSX/NHSD to provide research, design and technical expertise to this multi-disciplinary team of clinical, technical, design and delivery experts. The team was brought together to undertake an initial 12-week discovery of bookings, appointments and referrals across patients, care settings and care pathways. Taking a GDS, user-centred design approach, the discovery focused on:

1. Identifying common patterns and themes found in different care pathways and settings where common national digital solutions - services, standards or guidance - could be applicable.
2. Understanding user needs and the digital capabilities necessary to support the transformation of outpatient, primary and community care anticipated by the NHS Long Term Plan, as well as how to meaningfully empower patients throughout the process.
3. To do this, the team researched the user needs of patients, clinicians, and administrative staff whilst engaging with providers, commissioners, software suppliers and BRAM-related projects and programmes to understand the systemic challenges, complexities and opportunities to apply digital solutions at a national level.

Through mapping the problems experienced by patients, staff and the wider healthcare system, and identifying their root causes, the team were able to develop a strategic model for referrals and appointment booking aligned to the vision of the NHS Long Term Plan. In addition, the discovery identified the capabilities needed to build and support this radical new model of appointments and referrals.

The initial discovery has led to BJSS working with NHSD/X to deliver a strategic suite of programmes and capabilities, providing the building blocks for delivering on the national vision for booking, referrals and appointment management.

Supported by the Secretary of State for Health and Social Care, BJSS’ ongoing work is enabling the testing of national models in areas such as post-Covid elective care recovery, ambulance services and mental health care. This ongoing work is transforming not just the digital services of the NHS, but the way modern NHS services are delivered.



CASE STUDY

Supporting innovation in the NHS

It is estimated that the average innovation takes over 10 years to be adopted into the NHS. This creates a multitude of inefficiencies for both innovators and potential beneficiaries across the health service. Whilst there are several organisations that provide support to innovators, there is no unified NHS process or service to support the end-to-end journey.

NHS England & NHS Improvement (NHSE&I) recognised the need for a single, national online service for health innovators seeking to navigate the innovation pathway and NHS infrastructure. Its ambition is to create a service that consolidates support to innovators, including regulation, evidence generation, and relevant resources, national and regional funding channels, handover between support channels, needs articulation from health and care, and path-to-live and procurement processes.

In March 2020, NHSE&I undertook a Discovery/Early Alpha to develop this service. However, the GDS assessment of the Alpha raised several concerns around the approach and how it was meeting the needs of both innovators and those delivering services within the NHS.

NHSE&I asked BJSS to take over the Alpha from the incumbent agency to co-develop a user-centred solution. Building on the work done in Alpha 1, but recognising the need to take on the feedback of the GDS assessment, BJSS applied a user-centred, GDS aligned Design Thinking approach.

Utilising agile rituals and rhythms, the project ran five concurrent workstreams: stakeholder and user engagement, service design, user research, product design, and technical exploration.

The user research focused on addressing the gaps highlighted from Alpha 1 and ensuring a thorough understanding of users, actors and the end-to-end service. Stakeholder and user engagement maximised the utilisation of stakeholders' time through running several meetings and co-creation exercises whilst establishing a pool of users to test and iterate the prototype. Five rounds of usability testing allowed iteration at pace, enabling the service design and technical streams to focus on the needs of all users as well as the key design decisions for the end-to-end service.

Collectively, these streams, ceremonies and ways of working allowed the team to be truly iterative, incorporating change whilst refining the prototype, Service Blueprint, Architecture and Process Map, whilst documenting evidence and traceability of decisions.

The Alpha enabled NHSE&I and BJSS to articulate the 'To Be' state for an Innovation Service: a joined-up and cohesive multi-group approach to provide early-stage support to innovators through the combined efforts of bodies including AHSNs, NIHR, NICE, LSH Wales and MHRA. This 'To Be' state was articulated through a Service Blueprint (including several prototypes), Process Map, Rules of Engagement and Architecture.

An Alpha Recommendation Report, including a plan for Beta, was delivered to the client and all artefacts and written reports were used as part of the Alpha GDS Assessment.

The Alpha passed its GDS assessment with flying colours and moved into private Beta. Based on this successful collaborative working, BJSS has been engaged to take the Alpha through to private and public Beta.



CASE STUDY

A new e-Referral Service for the NHS

The new NHS e-Referral Service (e-RS) combines electronic booking with a choice of place, date and time for first hospital or clinic appointments.

e-RS is saving the NHS more than £10m every year.

Using Enterprise Agile, BJSS developed the Electronic Referrals Service (e-RS), the successor to Choose and Book system.

The initial development involved removing dependencies on the existing electronic healthcare records service product by delivering new business logic and data access layers.

The BJSS and NHS Digital teams worked together to then re-develop the user interface in collaboration with users while maintaining the look and feel to minimise training costs.

An extensive data migration approach was also designed and implemented to migrate over 25 million patient records.

e-RS was delivered using a lightweight, open-source stack with services delivered using open standards for re-usability and to remove dependencies on proprietary software - significantly reducing licensing and running costs. It is designed to be scalable, capable of being hosted on commodity hardware and suitable for moving to the cloud if required.

- > **Over 40,000 referrals daily**
- > **Approximately 35,000 appointment bookings every working day**
- > **Over 300,000 registered NHS users, of who >70,000 regularly use the system**
- > **Over 30,000 services polled every evening for appointment availability**
- > **Over 300 dynamic webpage requests every second**

CASE STUDY

Home Office Immigration Case Working

When fully delivered, Atlas, the Home Office's immigration caseworking system currently in development, will provide a modern and sustainable digital service to replace an ageing and inflexible legacy platform. It will streamline the caseworking process, make better data easier to access and support an improved customer journey for over 22,000 Home Office staff.

Atlas is being delivered iteratively and will present a single screen view of relevant immigration data. After automatically registering cases from online applications, Atlas will complete relevant checks and present a "ready to casework" case to a Home Office decision maker.

By providing design and build services for components that links Atlas with other Home Office and HM Government systems, and as part of a collaborative multi-vendor vendor engagement, BJSS is contributing towards a next generation system that will take paper, repetitive administration and manual tasks out of staff processes, delivering speedier decisions for applicants and delivering anticipated yearly cost savings of £8 million.



Home Office

CASE STUDY

DVSA Digital Driving Tests

On behalf of the DVSA, BJSS successfully managed and engineered a major programme to digitise the practical driving test, replacing a heavily manual process with a fully automated system that enables improved service delivery, reliability, performance and resilience. Through BJSS' understanding of GDS standards, and by adopting a user-centric approach to service design, this key process has been accepted by users and has not created a large training burden. It is integrated with other DVSA services and provides a fully connected environment that aids examiners with their day-to-day work.

From the outset, BJSS placed user pain points and needs at the heart of the project. BJSS visited test centres throughout the UK to meet key stakeholders across the test experience – from DVSA staff to test candidates – to understand success and pain points.

This resulted in the rapid development of a Minimum Viable Product (MVP) which was improved iteratively to deliver the full production system. It replaces the paper-based driving test report and is operated by driving examiners via a tablet. Crucially, the tablet also provides this workforce of over 1,900 examiners and management with remote access to other DVSA corporate systems, email and the intranet. Like other DVSA solutions delivered by BJSS, the solution is hosted in the cloud, allowing for greater cost control and the ability to scale based on demand.



DIGITAL TRANSFORMATION

Alpha

BJSS is a leading digital delivery consultancy for the UK Public Sector. Having successfully passed over 40 GDS assessments, BJSS is experienced at all GDS stages, including Alpha. Our Alpha service focuses on learning, assessing, and trying out different solutions to the problems surfaced during Discovery.

Service Features:

- > Iterative prototyping and user testing of Discovery hypotheses
- > Focus on end user experience, accessibility, and security
- > Creation of technical proof of concept
- > Creation of final service blueprint
- > Continuous delivery of value
- > Continuous user research and feedback
- > Creation of revised plan for all remaining delivery phases
- > Detailed plan for Beta, including cost, outcomes, timescales, and team
- > Prioritised Beta product roadmap.

Service Benefits:

- > Seamless transition approach from Discovery
- > Adherence to GDS Service Standard and Technology Code of Practice
- > Proven risk-first and award-winning delivery approach
- > Full preparation for GDS Beta
- > Access to and participation from BJSS' GDS Centre of Excellence
- > Value-based engagement, with multiple commercial models
- > Continuous knowledge transfer to client services
- > Working software delivered in Alpha
- > Continuous, open, and regular collaboration throughout
- > Ability to scale team remotely, on-site, or using hybrid models.

DIGITAL TRANSFORMATION

Beta

BJSS is a leading digital delivery consultancy for the UK Public Sector. Having successfully passed over 40 GDS assessments, BJSS is experienced at all stages. Our Beta service focuses on expanding and hardening the solution delivered during Alpha through private and public Beta, ensuring readiness for a live, accredited service.

Service Features:

- > Iterative, continuous delivery development approach
- > Continuous user research and feedback
- > Continued focus on end user experience, accessibility, and security
- > Proven and assured architecture and system integrations
- > Implementation of private and public Beta releases
- > Detailed plan for live support, including cost, outcomes, timescales, team
- > Validated critical success factors.

Service Benefits:

- > Seamless transition approach from Alpha
- > Adherence to GDS Service Standard and Technology Code of Practice
- > Proven risk-first and award-winning delivery approach
- > Full preparation for Live and/or transition to managed services
- > Access to and participation from BJSS' GDS Centre of Excellence
- > Tailored in-house assurance for the full duration
- > Value-based engagement, with multiple commercial models
- > Ability to scale team remotely, on-site, or using hybrid models
- > Continuous, open, and regular collaboration throughout.

DIGITAL TRANSFORMATION

Citizen Experience Strategy and Design

Providing a simple, joined-up and personalised experience is key to effective public services. Our approach to citizen (and colleague) experience strategy translates approaches typically seen in the private sector into citizen-facing products and services. We will help you identify opportunities to drive a more efficient, effective, and human-centric service.

Service Features:

- > Design thinking-led, highly collaborative approach
- > Discover and define the current state of your experience
- > Define a target state vision for 'what good looks like'
- > Identify and prioritise opportunities to improve citizen and colleague experience
- > Define experience principles to anchor your citizen experience efforts
- > Identify and quantify areas for early value realisation
- > Outline medium-to long-term transformational change, portfolio, and roadmap
- > Value proposition design for citizen-facing digital products and services
- > Measurement framework and capability map to build maturity
- > Co-create a compelling strategic narrative for change.

Service Benefits:

- > Deep understanding of current state through qualitative and quantitative analysis
- > Journey-by-journey analysis and improvement prioritisation
- > Service gaps and opportunities to improve colleague experience identified
- > Clear principles and measurement framework to define success
- > Actionable roadmap from reduced cost-to-serve initiatives to long-term transformation
- > Citizen and organisational benefits clearly mapped for investment cases
- > Compelling vision and creative artefacts to galvanise and inspire teams
- > Clear direction to people-centric experience maturity
- > Map of current and future state capabilities required
- > Improved understanding of design-thinking methods and mindset to develop culture.

DIGITAL TRANSFORMATION

Digital Strategy

BJSS partners with government and healthcare organisations to define adaptive digital strategies, helping them to make use of emerging technology to automate processes, reduce costs, and deliver more effective citizen-centric services. We use modern agile and design thinking methods to deliver holistic, strategies focused on organisational and citizen outcomes.

Service Features:

- > Innovation and design sprints to collaboratively co-design technology strategy
- > In-depth market research and scanning for emerging technology
- > Digital strategy and transformation roadmaps to inform delivery plans
- > Facilitation of co-creation strategy workshops and sprints to explore opportunities
- > Digital product and portfolio management
- > Human-centred design practice focused on user outcomes
- > Considers leading market trends from related and tangential industries
- > Inter-disciplinary teams to develop desirable, feasible, and viable digital strategies
- > Agile and design thinking methodologies, ensuring adaptive and effective strategies.

Service Benefits:

- > Strategy is outcome and citizen-focused, realistic and achievable
- > Strategy is value-based, anchored on efficiency and user experience
- > Collaborative approach to digital strategy increases organisational adoption
- > Collaborative approach creates enduring capabilities within your organisation
- > Impactful artefacts (e.g., blueprints and playbooks) allow future strategy refinement
- > Aligns organisation on iterative continual improvement strategies and techniques
- > Embeds new ways of working, increasing organisational agility
- > Embeds a culture of citizen-centric design to deliver effective outcomes
- > Prepares organisation to meet constantly changing citizen needs.
- > Increased success rates through iterative discover, design, deliver cycles.

DIGITAL TRANSFORMATION

Digital Transformation

BJSS partners with government and healthcare organisations to digitally transform the way they work, enabling them to evolve continually to meet citizen needs. Customers become true digital enterprises and launch new services and products with velocity and agility. Extensive experience of passing all stages of the GDS Service Manual.

Service Features:

- > Multidisciplinary teams that support all GDS phases
- > A unique Engineering Thinking meets Design Thinking approach
- > Agile change management: operating model design and automation strategies
- > Award-winning Enterprise Agile approach to delivery of digital services
- > Design Thinking approach to user research, UX design, and testing
- > Agile maturity assessment encompassing culture, methods, capability, governance, and management
- > Service design and service blueprinting to map the end-to-end experience
- > Digital product and portfolio management
- > Journey to DevOps: accelerated implementation of enterprise tools and methods
- > Digital architecture: architectural review and roadmap to support transformation.

Service Benefits:

- > Collaborative approach to digital strategy increases adoption
- > Embeds new ways of working, increasing organisational agility
- > Prepares organisation to meet constantly changing citizen needs
- > Employs a collaborative process, building internal capability
- > Cuts through complex change to focus on greatest value
- > Increased success rates through iterative discover, design, deliver cycles
- > GDS component accelerator to speed up overall delivery timelines
- > GDS centre of excellence ensures quality, compliance and reduces risk
- > Embeds a culture of citizen-centric design to deliver effective outcomes
- > Automation strategies reduce manual effort and focus on citizen experience.

DIGITAL TRANSFORMATION

Digital Twin

Create digital versions of your physical objects and systems using real-time data. Query in real-time, simulate what might happen in a given scenario and predict outcomes. For example, create virtual twins of a port, highways, public transport system, or construction project, predicting the most effective outcomes from your decisions.

Service Features:

- > Define a digital twin strategy for your organisation
- > Develop the architecture to underpin your digital twins
- > Independent technology selection aligned to your organisation's technology strategy
- > Develop ontology and create data models for sensor data
- > Integrate data from sensors and objects in real-time
- > Develop machine learning models to predict situational outcomes
- > Develop simulations to understand system behaviour given certain circumstances
- > Implement MLOps capability to operationalise machine learning.

Service Benefits:

- > Cut through hype to understand how digital twin benefits you
- > Understand what is happening with your physical assets in real-time
- > Create a digital visualisation of your assets, updated in real-time
- > Support operational and logistical planning with what-if simulations
- > Plan for unexpected situations with confidence
- > Work with BJSS to upskill your own teams in digital twin.

DIGITAL TRANSFORMATION

Discovery

BJSS is a leading digital delivery consultancy for the UK Public Sector. Having successfully passed over 40 GDS assessments, BJSS is experienced at all stages including Discovery. Our Discovery service focuses on understanding the problem that needs to be solved.

Service Features:

- > Reframing, or definition of problem to be solved
- > Stakeholder engagement, including client, users, and incumbent suppliers
- > User research and persona assessment to understand user needs
- > Analysis of as-is operations, processes, policies, and technologies
- > Bespoke set of artefacts, including user journeys and service blueprints
- > Project plan for all delivery phases (i.e., Alpha, Beta, Live)
- > Detailed plan for Alpha, including cost, outcomes, timescales, and team
- > Typically conducted within four to eight weeks.

Service Benefits:

- > Clear problem definition and what users want to achieve
- > Articulation of constraints for the new or reframed service
- > Alignment to and understanding of the underlying policy
- > Full adherence to the GDS Service Standard
- > Proven risk-first and award-winning delivery approach
- > Full preparation for GDS Alpha
- > Access to and participation from BJSS' GDS Centre of Excellence
- > Value-based engagement, with multiple commercial models
- > Continuous, open, and regular collaboration throughout
- > Ability to scale team remotely, on-site, or using hybrid models.

DIGITAL TRANSFORMATION

Dynamics 365 and Power Platform

BJSS helps organisations understand the benefits of applying Microsoft Dynamics 365 and the Microsoft Power Platform to their business and operational activities. We offer consultancy, implementation, integration and a fully managed service for ongoing support, maintenance, and continuous improvement as part of a digital transformation journey.

Service Features:

- > Understanding the benefits of different components within Dynamics 365/Power Platform
- > Proof of concepts - delivering MVP to demonstrate value and ROI
- > Business process mapping - creating a roadmap of process improvement/automation
- > Capability build - helping customers build and develop internal teams
- > Building new platforms into existing infrastructure using agile delivery methods
- > Assisting customers to build teams and understand ways of working
- > Managed services - to run/continuously improve Dynamics and Power Platform.

Service Benefits:

- > Increases operational efficiency through process optimisation
- > Single platform for customer management and insight
- > Acceleration of business process change allowing clients to adapt
- > Improved customer relationships through increased visibility and reporting
- > Improved data governance across the business
- > Increased ROI through integration with existing Microsoft Office 365 deployments
- > RPA of repetitive workflows through use of Power Automate
- > Opportunity to fully understand and transform business processes
- > Data integration and consistency utilising Microsoft CDS (Common Data Store)
- > Integration with chatbots through use of Microsoft Power Virtual Agents.

DIGITAL TRANSFORMATION

Health and Social Care Transformation

BJSS is an independent technology, strategy, and data consultancy with over 300 technologists collaborating closely with national healthcare bodies, integrated care systems (ICSs), Trusts, private providers, and health-techs, helping them to find, build, and deploy innovative cost-effective, compliant technology and data solutions to address their toughest digital challenges.

Service Features:

- > Agile GDS delivery across Discovery, Alpha, Beta and Live
- > Digital maturity assessment and technology roadmap for ICSs and Trusts
- > Strategy development for single entities or ICSs
- > Assessment, migration, and support of new/existing services to public cloud
- > Electronic Health Record (EHR) interoperability utilising open APIs, FHIR, HL7
- > Health and care insights and analytics through AI and ML
- > Information and dashboard design and delivery
- > Merger and integration support – systems and data warehousing
- > Rapid innovation sprints to prove out concepts
- > User-centred design, design thinking and Enterprise Agile embedded in approach.

Service Benefits:

- > Collaborative and incremental delivery, aligned to GDS service framework
- > User-centred and service design-led
- > System-agnostic experience across the health and social care estate
- > Experienced in delivering critical high-availability, low-latency solutions, such as SPINE2
- > Experienced in delivering responsive citizen-facing solutions, like the NHS App
- > Experienced in migrating critical systems to the cloud, like e-RS
- > Creative commercial models, focused on outcomes and shared risk
- > Deployment of cost-saving technologies into health and social care
- > Technology-agnostic delivery, selecting the best solution for the problem
- > Delivery of improvements to patient pathways through use of technology.

DIGITAL TRANSFORMATION

Innovation Accelerator

BJSS' innovation approach utilises creative, human-centred design techniques to help you explore and test the next generation of products, services, and business models. From future thinking workshops, developing an innovation portfolio to innovation sprints and lean product development - we will help you accelerate change through rapid value generation.

Service Features:

- > Future thinking workshops helping senior teams explore trends and opportunities
- > Define how innovation delivers value and aligns with business strategy
- > Innovation sprints, kick-starting innovation through design thinking and lean start-up
- > Lean product and service deliveries, rapidly testing and delivering value
- > Scale up deliveries to deliver value beyond the MVP
- > Innovation portfolios and operationalisation of innovations to provide repeatable methodology
- > Reusable innovation toolkit including technology and delivery patterns, accelerating deliveries
- > Structured approach to problem solving, value proposition design and experimentation
- > A user-centric approach using service design methodology and design thinking
- > Rethinking business models and product consumption to deliver sustainable outcomes.

Service Benefits:

- > Innovation strategy that directly supports organisation strategy and vision
- > Clearly defined vision for the organisation, product, or service
- > Agreed definition of value and how to measure it
- > Well-structured business case that outlines the ROI of innovation
- > Accelerated time to value using iterative and lean development methods
- > De-risked delivery using BJSS' scalable innovation, design, and delivery approach
- > Development of rapid prototypes to gather support and feedback internally
- > Accelerated delivery of value through co-design and testing with users
- > Flexible and holistic approach to meet user, policy, organisational needs
- > Partnership model supports capability building for self-sufficiency and lasting change.

DIGITAL TRANSFORMATION

Low Code Application Platforms Consultancy and Implementation

BJSS can provide low code/no code consultancy, implementation, and managed services across multiple enterprise-grade Low-Code Application Platforms (LCAP) in support of data and application democratisation.

Includes services to build and scale capability, optimise and govern services, enablement and upskilling across LCAP, with focus on market-leading solutions.

Service Features:

- > Strategy, implementation, and consultancy services around low code technologies
- > Technology and use case expertise including Microsoft Power Platform, OutSystems
- > Integration/extension of services (Salesforce, Dynamics 365, Common Data Model)
- > Drive commoditised organisation specific solutions
- > Built on vendor CoE models and expert knowledge
- > Power Apps and Power Automate delivery
- > Power Agents and RPA integration and extension
- > Aligned with DataOps approach for data democratisation
- > AI and ML specialisation and value-added expertise, maximising LCAP value.

Service Benefits:

- > Improved agility and increased operational efficiency through reduced processing time
- > Workforce is freed for business-value work
- > Improved accuracy in processing
- > Higher productivity and business cost savings
- > Improved customer satisfaction
- > Prolong the life of critical systems by overlaying RPA processing
- > Opportunity to fully understand and transform business processes
- > Effective risk management and governance systems and approaches
- > Faster transformation with users at the heart of change
- > Build rapid applications that work across wider set of devices.

DIGITAL TRANSFORMATION

Robotic Process Automation and Intelligent Automation

Helping organisations realise value/opportunities for RPA and Intelligent Automation, freeing workforces from repetitive, time-consuming activities and improving efficiency. Services include simple process automation, complex business solutions and fully managed service contracts for ongoing running and continuous improvement, using technology such as AI and ML, OCR and Natural Language Engines.

Service Features:

- > Innovation and Discovery: understanding potential areas of opportunity
- > Proof of concepts: delivering minimum viable processes to demonstrate feasibility
- > Business process mapping, creating a roadmap of automation solutions
- > Helping partners to build their RPA knowledge and find opportunities
- > Tactical process automation: resolving specific business bottlenecks through automation
- > Working with partners to implement automation roadmaps for business transformation
- > Managed services, to run and continuously improve automation solutions
- > Strong approach to governance, BCP, and disaster recovery
- > Work with the market leading solutions and vendors
- > Integration with market leading OCR, AI, and Low Code platforms.

Service Benefits:

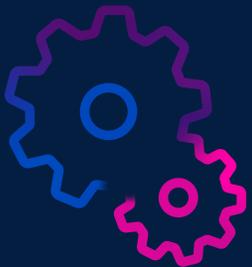
- > Increases operational efficiency through reduced processing time
- > Workforce is freed for additional business-value work
- > Improved accuracy in processing and reduced rework costs
- > Business cost savings through increased productivity
- > Improved customer satisfaction through improved quality and timeliness
- > Improved employee satisfaction through removal of low value add activities
- > Prolong the life of critical systems by overlaying RPA processing
- > Opportunity to fully understand and transform business processes
- > Focus people on critical functions that require human intelligence
- > Introduce adaptability, flexibility, and improvement to processes.

SERVICE

Technology & Engineering

We design and build software that transforms the performance of some of the world's biggest and most demanding organisations. From re-engineering the world's largest public healthcare platform, to passing over 40 GDS assessments, our engineers combine innovation, experience and pragmatism to deliver measurable results with every project.

Within this service there are thirteen microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.



Advanced Technology
Services

API Development
and Integration

Cloud-native
Application

Container Management

Continuous Delivery
and Integration

DevOps Services

Healthcare Engineering

Identity and Access
Management

Mobile Application
Development

Site Reliability
Engineering

Software Application
Modernisation

Testing Services

Web Development
Services

CASE STUDY

Launching the Emergency Department Digital Integration System



At the start of the first UK Covid-19 lockdown, there was a 27% decrease in the number of Emergency Departments (ED) attendances compared to the previous month. Concerns surrounding the coronavirus were causing members of the public to stay away from a hospital, despite needing urgent medical care.

To minimise the virus transmission risk and reduce overcrowding in ED, BJSS worked with NHS Digital and NHS X to develop the Emergency Department Digital Integration (EDDI) system.

To achieve this, a multi-functional NHS Digital, NHSX and BJSS team adopted an agile delivery approach, rigorous testing, precise scope management, non-functional testing, and collaborative working methods.

This was further complemented by extensive user research with emergency departments across England. The research, conducted by BJSS' digital design brand, SPARCK, included three parts – exploratory, evaluation and post-live. In total, 49 participants took part in the research, including users such as ED receptionists, service managers and consultants.

In just four months, the team delivered EDDI. This cloud-based application is fully integrated with NHS 111 online and NHS 111 telephony. The system communicates with NHS 111 through a secure set of APIs that meet the NHS' CareConnect and FHIR standards and Interoperability guidelines.

This vital integration allows NHS 111 to interface with ED across England and provide patients with a specific ED arrival time based on their clinical needs. Clinical data is also sent from NHS 111 to the local ED via EDDI. EDs can then access this data, view upcoming patient arrival times and update patient arrival statuses.

Highly Scalable

EDDI has been engineered with scalability in mind. Hosted on AWS, the system is built on serverless architecture and a Javascript tech stack. Its architecture helps to ease the process of integrating EDDI with other NHS systems, such as the NHS Authentication systems. Initially piloted at Yeovil ED, the technology behind EDDI has enabled the system's rapid scaling, which now services c140 EDs across England.

Rapid Delivery

From inception to live, the team launched a fully functioning system in just four months. This success centred on close. The team came together to carry out a meticulous and detailed scope management process, which paved the way for the project delivery. The adoption of agile ways of working allowed the team to deliver the system incrementally through a series of bi-weekly releases. New features and improvements were continuously added throughout, resulting in a fully penetration-tested system that satisfies the AWS Well-Architected framework.

Improved Resource Forecasting

By providing specific urgent care ED arrival times, hospitals across England can allocate an accurate level of resource to cope with demand. EDDI allows NHS 111 operators to share clinical data with Emergency Departments, who can use this data to ensure the most appropriate staff members see patients.

Reduced ED Overcrowding

Crucially, EDDI has given the NHS the capacity for people to book into their ED for the first time. Patients contacting NHS 111 can now be given a specific ED arrival time at a specific department, attending a quieter, less busy ED waiting room that reduces the risk of coronavirus transmission.

Case Study: Migrating e-RS to the cloud

When BJSS and NHS Digital originally built e-RS, the service was operated by dedicated storage equipment. This meant that in addition to the equipment used to provide the service, enhanced security was needed too. While this dedicated structure made e-RS reliable, it made it expensive to maintain and complex to manage.

However, with time, improvements to public cloud offerings became available. NHS Digital was keen to explore the viability of transferring e-RS to the cloud. It hoped that this would save taxpayer money and also support the NHS' Internet First policy of providing access to digital systems by other providers such as dentists, optometrists and pharmacies. This became the NHS' biggest and most ambitious cloud migration to date and has resulted in e-RS achieving performance, security and cost-saving improvements.

A joint BJSS and NHS Digital Delivery Team of 28 covering platform engineering, architecture, application development, functional and non-functional test, delivery management, business analysis, database administration, service management and operations successfully moved e-RS to the cloud two years later.



Case Study: Disclosure Scotland - A European first

BJSS and Disclosure Scotland delivered a European first by migrating highly-sensitive Police data from an ageing infrastructure onto a next-generation public cloud platform, without compromising security standards.

With high levels of accreditation, such as ISO27001 information security standards, the Disclosure Scotland service includes a secure environment that is backed up with best of breed technologies and industrialised processes to ensure both data security and integrity. It is fully automated, repeatedly changing and adapting itself against real-time security threats.

This combination of mapping and security measures is innovative and largely unmatched. Not only has this project delivered significant cost savings for the agency, but it has also provided the foundation for a company-wide digital transformation programme. This cloud-first approach is delivering a faster, more accessible and accurate digital disclosure service for the people of Scotland.



Case Study: Full rewrite of hospital episode statistics

We collaborated with NHS Digital to migrate its legacy HES system to a newer version of Oracle running on a new hardware platform. Within 6 months, we successfully delivered a completely rewritten HES.

The new version of HES benefitted from a substantial reduction in its hardware and processing needs, together with a code base that was much simpler to understand and maintain. Its original 3.5 million lines of SQL code and 500-step manual process which ran on six machines had been reduced to just 100,000 lines of SQL code and a two-step automated process running on a single machine. HES also benefited from complete process automation, disposing of the significant and time-consuming volume of manual tasks which users and administrators had become accustomed to.

The rewrite has reduced HES-related costs by simply eliminating its reliance on an external third party, but also provides other cost savings too. Operational risks are reduced dramatically and NHS Digital have seen improved customer service.



TECHNOLOGY & ENGINEERING

Advanced Technology Services

Identify and deliver value from advanced technologies with velocity and agility. BJSS' comprehensive suite of advanced technology services covers everything from assessing current capabilities and setting direction, to prototyping and productionising services using leading edge technology. Innovate with technology to improve outcomes for your users.

Service Features:

- > Executive workshops to identify opportunities for advanced technology usage
- > Maturity and readiness assessment, strategy, roadmap, and operating model
- > Hackathons undertaken with your staff and our expert engineers
- > Innovation sprints for idea generation, validation, and backlog prioritisation
- > Delivery of Discovery through to Live production launch
- > Understand how cognitive AI can support human decision making
- > Determine how IoT and Digital Twin can benefit your organisation
- > Experiment with advanced user interfaces; virtual, augmented, and mixed reality
- > Understand Blockchain and Distributed Ledger Technologies (DLT)
- > Independent technology and vendor selection.

Service Benefits:

- > Remove vagueness to truly understand how to apply advanced technology
- > Understand and implement leading technology, from idea to live service
- > Evangelise advanced technologies to executives with tangible examples and prototypes
- > Experiment and fail fast, taking forward ideas with best results
- > Excellent value for money with our proven product launch methodology
- > User-centric technology exploration
- > Lean, agile delivery to increase confidence as investment grows
- > Upskill staff through collaborative ideation, design, and delivery processes
- > Data-driven process to move from opinions to facts.

TECHNOLOGY & ENGINEERING

API Development and Integration

BJSS leverages our extensive experience implementing enterprise-grade systems using agile and DevOps techniques to deliver best-in-class solutions. BJSS applies best practice to designing, developing, testing, and supporting delivery across a wide range of scenarios, whether an on-premises package integration, cloud-native application delivery, or a highly-scalable micro-service architecture.

Service Features:

- > Establish API vision and strategy
- > Design and build from scratch, or extend existing API services
- > Review maturity of existing architecture and engineering, providing recommendations roadmap
- > Follow agile and DevOps approaches to deliver short cycle times
- > Use automation to build, test, and deploy with greater confidence
- > Create industry-standard open API (Swagger) documentation
- > Integrate with API gateways and authenticate (e.g., OAuth, OpenID Connect)
- > Services designed for appropriate resilience, scalability, performance, and security
- > Leverage engineers with extensive public and private sector experience
- > Technology-agnostic, including Java, .NET, NodeJS, TypeScript, AWS, Azure, and GraphQL.

Service Benefits:

- > Robust, maintainable, extendable APIs that minimise total cost of ownership
- > Services scale to meet demand cost-effectively
- > Secure, tested APIs with performance and usage monitoring
- > Regular releases realise value and generate user feedback quickly
- > Deliver high-quality software through automation, reducing human error
- > Reduce integration issues through robust testing, such as contract-based testing
- > Reduce recurring operational costs and operational service risks
- > Significant public sector and GDS experience in software delivery
- > Multidisciplinary teams that can work hand-in-hand with your own staff
- > Improve skillset of existing teams through knowledge sharing.

TECHNOLOGY & ENGINEERING

Cloud-native Application

BJSS' cloud-native application development services help clients to design and build enterprise-grade systems born for the cloud, applying agile and DevOps to deliver best-in-class solutions. We select the right cloud services and build solutions that meet cost, availability, and performance requirements using technologies including containers, Function-as-a-Service, and Database-as-a-Service.

Service Features:

- > Architect and deliver applications built natively for the cloud
- > Redesign applications from the ground up following cloud-native principles
- > Redevelop and transition legacy applications to the cloud incrementally
- > Use cloud services to accelerate development and reduce support overheads
- > Apply serverless technology from AWS, Azure, or GCP
- > Experience developing and deploying solutions to GOV.UK PaaS
- > Develop services and capabilities using FaaS, PaaS, SaaS, and containers
- > Built to scale elastically, self-healing from incidents
- > Independent, agnostic advice and technology selection
- > Technology examples: Lambda, DynamoDB, Fargate, Functions, API Gateway, App Service.

Service Benefits:

- > Proven delivery at scale for enterprise-quality applications
- > Highly cost effective, pay only for what you execute
- > Reduce infrastructure effort, deliver features faster
- > Exceed NFRs, benefit from elastic scaling with no extra effort
- > Designed and built to be kept evergreen through continuous improvement
- > Simplify operations, reducing requirements for patching and systems administration
- > Reduce time-to-market and employ faster lean learning loops
- > Value and user experience-focused, not infrastructure and operating systems-led
- > High quality engineering, fully automated and continuously delivered into production
- > Knowledge shared to improve your existing team's skillset.

TECHNOLOGY & ENGINEERING

Container Management

BJSS is experienced in providing the design, delivery, and operation of container management to both new and existing projects. Our experience of government and private sector implementations, using a wide range of technologies, also enables us to support the adoption of container management best practices across teams.

Service Features:

- > Implement cloud-native container services from AWS, Azure, and GCP
- > Experience developing and deploying solutions to GOV.UK PaaS
- > Expert engineers deploy and operate enterprise container management
- > Independent, agnostic advice and technology selection
- > Integrate into continuous integration and delivery pipelines
- > Employ service mesh to manage complex networks of services
- > Talented engineers with significant experience of production deployments and workloads
- > Work hand-in-hand with BJSS staff to provide on-the-job training
- > Container management provided as resource augmentation, consultancy, or managed service
- > Technologies: Kubernetes, OpenShift, Fargate, Docker, AKS, EKS, Istio, Helm etc.

Service Benefits:

- > Build security into day-to-day delivery, protecting user data
- > Improve speed of development and frequency of release
- > Enable advanced deployment techniques, e.g., canary and blue/green deployment
- > Consistency across all environments: development, test, and live
- > Reduce effort required to deploy container management through expert advice
- > Reduce cloud infrastructure costs, making effective use of available capacity
- > Integrate container management into the broader CI/CD and operational processes
- > Benefit from significant production experience, cutting through a complex topic
- > Build solutions ready for operations, with telemetry and monitoring built-in
- > Knowledge shared to improve your existing team's skillset.

TECHNOLOGY & ENGINEERING

Continuous Delivery and Integration

A range of delivery pipeline services available on a team augmentation basis, as part of a project team or an outsourced service, supporting continuous integration, automated testing, continuous delivery, and continuous deployment. Services employ open-source tooling, proprietary software (including Atlassian, AWS and Microsoft tools), and cloud SaaS/PaaS services.

Service Features:

- > Review current pipeline and release process against best practice
- > Create an initial 'cloud-first' release pipeline and iterate throughout delivery
- > Release increments of any size, features, hotfixes, and larger increments
- > Develop and integrate new delivery pipeline governance model
- > Select and recommend tools, migration plans, and processes
- > Provide capability review to develop training requirements for existing teams
- > Develop pipeline champions and implement pipeline governance
- > Everything-as-code: build, test, environments, deployment, approvals, and artefact creation
- > Consistent configuration management across all development, test, and production environments
- > Zero downtime deployments using blue/green, parallel, load balance switching methods.

Service Benefits:

- > Extensive real-world experience informs assessment of BJSS' maturity model
- > Reduce release cycle time, release smaller increments and patch faster
- > Remove blockers, migrate all pipeline environments to cloud, and automate
- > Reduce costs with cloud environments existing only during build process
- > Identify issues early and automate quality checks on code submission
- > Minimise production issues caused by environmental differences
- > Reduces cost of development through efficient process and lean delivery
- > Consistently high-quality production releases with confidence though automated assurance
- > Ensure high availability and excellent user experience with zero downtime
- > Assure security of releases with in-pipeline security automation.

TECHNOLOGY & ENGINEERING

DevOps Services

Supporting the adoption of DevOps and GDS service principles for both existing and new projects. Services include maturity assessment, implementation, resource augmentation, or a fully managed service to support the implementation of DevOps practices in client organisations. This includes DevOps ways of working, lean delivery, and tooling.

Service Features:

- > Assess DevOps maturity and build backlog to reach desired state
- > Work hand-in-hand with staff, training through implementation as 'one team'
- > Delivery by experienced practitioners who work in DevOps cultures daily
- > Creation of DevOps processes, change and release management
- > Deploy continuous integration and continuous delivery capability
- > Automation of build, deploy, test, release, and operational processes
- > Adoption of lean delivery methods
- > Implement monitoring and application performance management
- > Embed communications tooling, metrics dashboards etc., to ensure optimal sharing
- > Deliver DevOps in collaboration with existing service management teams.

Service Benefits:

- > Reduce waste through the application of lean delivery principles
- > Minimise cycle time from idea to development to release
- > Deliver high quality software through automation, reducing human error
- > Deliver software that delights users through continuous feedback and measurement
- > Use build, measure, learn loops, making decisions based on evidence
- > Ease the path-to-live with standardised, streamlined, consistent approach
- > Address constraints in delivery through time and resource efficiency
- > Significant public sector and GDS experience in DevOps delivery
- > Reduced recurring operational costs and operational service risks
- > Improve the skillset of your existing teams.

TECHNOLOGY & ENGINEERING

Healthcare Engineering

BJSS has 10 years' experience building, modernising, and operating complex systems and platforms that underpin the UK healthcare system, such as e-RS, Spine, and NHS login. As experts in interoperability, agile, and GDS, BJSS also supports Trusts, ICSs and other healthcare organisations to build bespoke, user-centric, accessible services and platforms.

Service Features:

- > Delivery and operation of high-performance, national, business and safety-critical systems
- > Healthcare Interoperability as standard (HL7v2/3, FHIR, GP Connect, CareConnect, IHE)
- > API strategy and advisory
- > AWS Advanced Consulting partner, Microsoft Gold partner, over 450 certifications.
- > GDS-aligned, user-centred and service design-led approach
- > Creation of DevOps processes, change and release management
- > Continuous integration and continuous delivery capability
- > Automated build, deploy, test, release and operational processes, utilising Infrastructure-as-Code
- > Award-winning Enterprise Agile approach tailored to every delivery
- > Technical leadership, solution and enterprise architecture, strategy and roadmap planning.

Service Benefits:

- > Development of bespoke user-centric software and platforms
- > Deliver software that delights users through continuous feedback
- > Architecture/security-centric, risk-first approach to ensure successful delivery outcomes
- > Skilled software and platform engineers across major cloud providers
- > Experienced designing and building solutions to meet healthcare regulations/policies
- > Transparent, collaborative approach strengthens engagement and outcomes
- > Embedded teams used to working with clinical systems/technical standards
- > Blended approach to service design and engineering
- > Cloud engineers adopt good practice, are 'Well-Architected' Review practitioners.

TECHNOLOGY & ENGINEERING

Identity and Access Management

We leverage our extensive experience implementing enterprise-grade systems when approaching Identity and Access Management. Whether it is selecting an IDAM package for a new greenfield delivery or integrating a bespoke application into an existing IDAM solution, BJSS can provide design, development, testing, and automation skills to deliver a best-in-class implementation.

Service Features:

- > Experience implementing a range of COTS and bespoke IDAM solutions
- > On-premises and cloud implementations, plus Software-as-a-Service
- > Review existing processes and application landscape, recommending suitable IDAM options
- > Integrate enterprise and bespoke systems using OAuth/SAML/OpenID, SSO, MFA, etc.
- > End user and API access management
- > Universal and federated user directories, including AAD, OKTA, and AWS Cognito
- > Define and support IDAM processes, such as onboarding and offboarding
- > Implement authorisation techniques, including role-based access control
- > Privileged access management and permission hierarchy design
- > Access control auditing and monitoring.

Service Benefits:

- > Large-scale mixed public and government implementation experience
- > Technology agnostic, using DevOps and automation best practices
- > Considered and appropriate security controls
- > A team with broad and deep engineering experience
- > Enable a least-privilege permission approach
- > Robust and maintainable implementations
- > Managed service offerings
- > Multidisciplinary teams that can work hand-in-hand with your own staff
- > Knowledge shared to improve existing team's skillset
- > Deliver high quality software through automation, reducing human error.

TECHNOLOGY & ENGINEERING

Mobile Application Development

Development of mobile applications driven by user research and user experience. Delivery from discovery to live production, integrated with new or existing cloud services. Native and hybrid design and development to support all mobile and tablet devices, modernising access to services for citizens with all accessibility needs across the UK.

Service Features:

- > Hybrid, Native and Progressive Web apps (iOS and Android)
- > Support for all mobile and tablet devices and platforms
- > Integration with device management services
- > Secure development and testing of applications
- > Mobile user experience experts design interfaces based on user research
- > Deployment to app stores and patch management
- > DevOps approach to delivery with continuous integration and assurance
- > Instrumentation of mobile apps to aid continuous improvement
- > Integration with public cloud services from AWS, Azure and GCP
- > Technologies: Swift, Android Studio, Xamarin, PhoneGap/Cordova/Ionic, React Native etc.

Service Benefits:

- > Proven delivery at scale for enterprise quality applications
- > Ensure excellent user experience with expert designers and researchers
- > Increased delivery frequency, predictability, and traceability
- > Compliance with device platform specific guidelines and best practice
- > Working knowledge of open-source mobile frameworks and components
- > Agnostic technology approach ensures best use of available options
- > Highly reliable and efficient applications through automated testing and metrics
- > Improved customer experience and competitive advantage
- > Alignment of app strategy to other digital strategies
- > Rapid support for new OS versions and mobile devices/capabilities.

TECHNOLOGY & ENGINEERING

Site Reliability Engineering

Adopt and implement a site reliability engineering (SRE) approach to the development and live operation of software in your organisation. Bring significant software engineering expertise to operations, embracing risk and speed of change, putting automation, assurance, scalability, and reliability right at the core of your operational behaviours.

Service Features:

- > Automate manual operational tasks by default
- > Operational support that encourages fast change
- > Consistently improve resilience and scalability, and reduce costs
- > Supplement development with the same team that undertakes operations
- > Innovate faster, testing change quickly with real users
- > Monitor and react to metrics including performance, latency, and capacity
- > Prioritise automatic healing and detailed instrumentation
- > Independent technology advice
- > On-call support and issue resolution
- > Work together with our experts as a single team.

Service Benefits:

- > Bring 29 years of quality software engineering to operations
- > Significantly increase the frequency of change of your software
- > Reduce toil and repetitive manual effort
- > Increase real-time understanding of the operations of your systems
- > Recognise the importance of release engineering
- > Eliminate the conflict between stable operations and fast-moving change
- > Reduce solution complexity with a focus on simple design
- > Learn from failures with proactive adoption of agile techniques
- > Assure your operations, not just your software
- > Improve the skillset of your existing teams.

TECHNOLOGY & ENGINEERING

Software Application Modernisation

Redevelop and modernise legacy software applications, redefining architecture to benefit from public cloud services, open-source technology, and open standards. Employ service design ensuring that modernised applications are rationalised to meet current and future user needs, rather than rebuild what already existed. Improve user experience, simplify operation, and reduce operational cost.

Service Features:

- > User research to understand how users interact with existing application(s)
- > User pain-points considered to develop a service that meets needs
- > Service design applied to define approach for replacing existing applications
- > User experience experts to redevelop for modern user interfaces
- > Expert architects develop open, loosely-coupled cloud-first designs
- > Implementation of open standards and open APIs
- > Incremental application replacement with continuous operation, minimising business disruption
- > Redeveloped using latest technology and cloud services
- > Delivered by multidisciplinary teams using agile and DevOps approaches
- > Can be delivered hand-in-hand with your own delivery teams.

Service Benefits:

- > Reduce cost of services through cloud and open-source software
- > Improve user experience incrementally, using feedback to inform direction
- > Unlock data and system integration potential by adopting open standards
- > Benefit from understanding of usage of current application and regulations
- > Service developed to meet Digital by Default service standards
- > Enhance security, privacy, performance, availability, usability, and accessibility
- > Upskill your staff in agile, DevOps, and latest technologies
- > Architected to support evergreen development during continuous improvement
- > Fast, high-quality modernisation through public sector experience redeveloping legacy services.

TECHNOLOGY & ENGINEERING

Testing Services

Experienced specialists fulfil the full spectrum of testing services, including functional, non-functional (performance, load, stress, accessibility, security), automation, and exploratory testing. This also includes test architecture, strategy, planning, and management. BJSS' testing services implement agile and collaborative working practices and provide guidance and instruction to clients.

Service Features:

- > Deliver functional software testing, planning, and execution
- > Undertake performance, load, stress, soak testing of solution
- > Develop and implement test strategy, planning, and management
- > Automate all forms of testing and implement within continuous delivery
- > Tool selection and best practices framework architecture
- > Review existing testing, provide and implement recommendations
- > BDD, ATDD, and TDD approaches
- > Collaborative working from requirements design to production testing
- > Reporting on test metrics automatically and graphically
- > Independent tooling advice and open-source expertise.

Service Benefits:

- > Assured, high quality software delivery through iterative, collaborative working practices
- > Increase confidence in quality, reducing barrier to production
- > Reduction of business risk in delivery
- > Increase of value delivered to users through each iteration
- > Reduction of cost through using open-source tools
- > Integration testing of third-party services and interfaces
- > Continuous testing as part of build pipeline, preventing regression
- > Parallel testing, ensuring rapid feedback cycle
- > Decrease delivery cycle time through automation
- > Well architected, maintainable, extensible test automation frameworks.

TECHNOLOGY & ENGINEERING

Web Development Services

Expert engineers will work closely with you to design and deliver modern web applications aligned to the GDS service standard, implementing interactive web experiences using best practice and the latest technology. BJSS will apply service design to ensure that the service built is designed effectively for users.

Service Features:

- > Architect, develop, and deploy applications, enabling access to services digitally
- > Employ service design and user experience design, researching with users
- > Use of open-source software and open standards
- > Multidisciplinary teams that can work hand-in-hand with your own staff
- > Training and skills improvement of your staff working with experts
- > Development of back-end APIs and services
- > Deliver minimum viable product focused on user needs
- > Instrument and measure performance, informing change based on real-world use
- > Employ continuous delivery, automated assurance, including cross-browser and non-functional
- > Technologies including serverless, ReactJS, NodeJS, JavaScript, TypeScript, AWS, Azure etc.

Service Benefits:

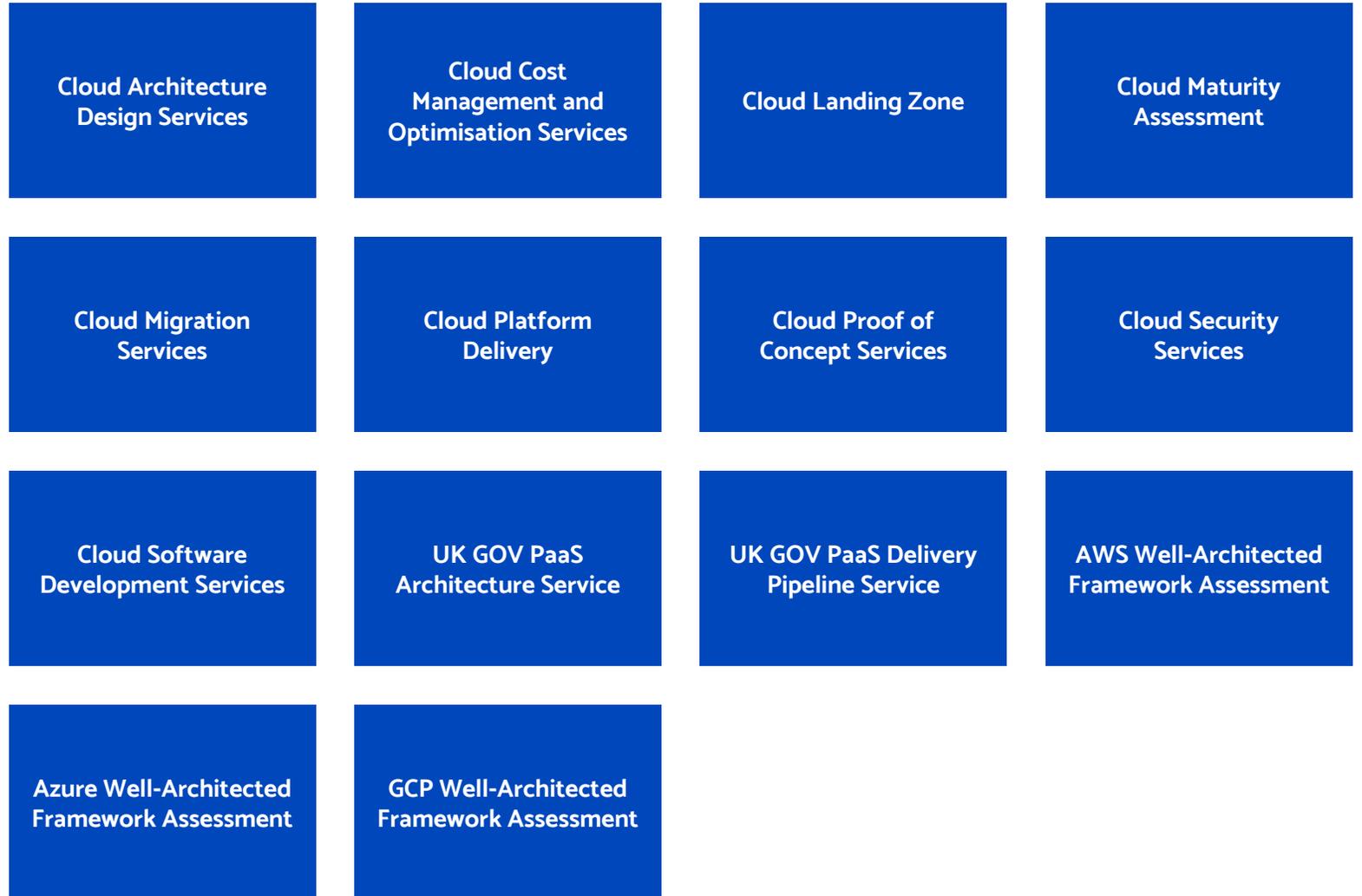
- > Applications delivered to 'Digital by Ddefault' service standard
- > Value realised quickly and iteratively through agile approach and MVP
- > Release regularly and obtain immediate user feedback with continuous delivery
- > Ensure you deliver a service designed for user needs
- > Instrumentation for immediate feedback on performance and usage of application
- > High quality solution assured with automated testing and continuous inspection
- > Accessibility designed from the start with WCAG 2.0 level compliance
- > Agnostic technology approach ensures best use of available options
- > Secure application, threat modelled with security moved left
- > Upskilled internal workforce ensuring you can take on further delivery.

SERVICE

Cloud & Platform

Reduce your costs and increase time to value for all your cloud deployments. BJSS accelerates your cloud adoption, providing experience as code and years of development expertise. Our approach has supported everything from small architecture reviews, to achieving a European first by migrating police data to the cloud.

Within this service there are fourteen microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.



CASE STUDY

A new GDS-approved digital service delivered in just nine weeks

In just nine weeks, BJSS delivered a GDS approved digital service for the Department for Transport (DfT) and National Highways. The solution, which is hosted on Google Cloud (GCP), has provided DfT and National Highways with a brand-new digital service that is designed to help bridge owners find and procure temporary bridge solutions.

A significant proportion of GDS projects take over a year to receive full approval, with some failing to make it past the discovery phase. Keen to accelerate through the GDS stages, DfT and National Highways sought BJSS' help due to its reputation for delivering over 40 GDS approved digital services.

To accelerate through the GDS phases (Discovery, Alpha and Beta), BJSS split the delivery into:

- > A lean start-up three-week sprint to validate assumptions and design the right solution
- > Six one-week sprints to deliver the working solution into Live
- > BJSS also organised a show and tell at the end of every week to showcase progress, review objectives and revalidate the agreed vision.

By following this approach, the BJSS team rapidly developed a new cloud-native application on Google Cloud, using tools such as Google IAM, App Engine, Identity-Aware Proxy and Identity Platform. This resulted in a partial solution being tested and improved with end-users by week three of the delivery. Having passed the alpha phase, the BJSS team migrated the solution to DfT's Google Cloud Platform, where it was continuously improved and prepared for launch.

The intuitive nature of GCP, combined with BJSS' expertise in delivering GDS projects, resulted in DfT and National Highways obtaining full GDS approval nine

weeks after the project began. Several other factors led to the delivery's success, including:

- > The full commitment and support from the key stakeholders at DfT and National Highways
- > Efficient use of collaboration tools such as Miro, Zoom and Office 365
- > Appropriate trade-offs between creating reusable assets and writing throw-away code
- > A determination to test early, regularly and to iterate our solution
- > Open communication with all stakeholders, including the GDS assessors
- > Strong awareness of what everyone's responsibilities were and a sense of accountability that was established in the kick-off workshop and reiterated in the agile ceremonies
- > Show & tells proved to be an invaluable communication tool and helped gather stakeholder support as well as involve the GDS assessors regularly before the final assessment. During each session, time was made for everyone to share their opinion on the current progress
- > All agile ceremonies, show and tells, and assessments were conducted remotely, and all key stakeholders were invited and attended
- > All user research and testing was conducted remotely, enabling further reach, accelerating the discovery and saving previous time and energy.

With our agile approach, commitment to collaboration, and the use of best in class Google Cloud products, DfT and National Highways have been able to execute one of the fastest GDS deliveries since the programme began. But most importantly, it has acted as a blueprint for how government can deliver new digital public services at pace.



Department
for Transport



CASE STUDY

Speeding up delivery of NHS Test and Trace cloud platform

The Department of Health and Social Care (DHSC) is a UK Government Department that is responsible for all policies on health and social care matters in England. Since the start of the Covid-19 pandemic, it has played a central role in the UK's fight against the virus by introducing the Test and Trace service.

Together with the DHSC team, BJSS rolled out its Enterprise Cloud to speed up the delivery of the Azure and AWS-based cloud platform that now underpins NHS Test and Trace.

NHS Test and Trace is a programme of work within the DHSC to help halt the spread of Covid-19. For the programme to succeed, it needed to be delivered securely and at pace, all while meeting the anticipated demands on the service.

The service needed to be supported by cloud technology bringing existing hosting and tooling within the control of NHS Test and Trace. DHSC did not have the resources available to deliver a new platform to the scale required within the tight timeframes.

BJSS was successful in securing the opportunity to deliver the Azure and AWS-based Test and Trace cloud platform for DHSC.

To achieve this, we introduced the BJSS Enterprise Cloud. This framework enables the DHSC to vend new accounts at pace and provides a single pane of glass for all its accounts. It also provides thousands of hours' worth of code, which compressed down the delivery timescales from months to just a few days.

When the programme puts forward new requirements for the platform, we can stand up new services and vend new accounts exceptionally quickly. All of this is achieved without compromising the platform's security posture.

Accelerated delivery

Similar cloud deployments to this usually take months to deliver. The BJSS Enterprise Cloud contains thousands of hours' worth of code that has helped the DHSC to stand up the Test and Trace cloud platform in a matter of days. All the necessary guardrails have been built in, resulting in a cloud platform that has been securely delivered at pace.

Ability to quickly scale

The ever-changing nature of the pandemic has resulted in fluctuations in demand on the Test and Trace service. As a result, it needs to be quickly scaled up and down in line with demand. Without BJSS Enterprise Cloud, it would have taken DHSC longer to deploy new workloads and stand up new services.

Tailored to meet demands

We tailored the BJSS Enterprise Cloud to meet DHSC's specific requirements by folding them into the platform. While we can continue to add requirements to the platform, DHSC also has access to the Infrastructure as Code to quickly make any changes autonomously. It also allows them to iterate on top of the platform and evolve it in line with changing requirements.



Case Study: Driving DVSA to the cloud

The DVSA's business-critical Testing and Registration System (TARS) comprises a suite of applications and utilities that enable staff to manage Driving Test Centres, Driving Examiners, driving tests, staff deployments, Candidates and the processing of results for theory and practical tests.

The system was housed on a physical server infrastructure base made up of end-of-life SPARC systems. This was a costly service that did not align with other DVSA cloud-native systems, allow DVSA to be agile, create new services, introduce changes, or conform to the Government's Digital Service guidelines of cloud-native and open-source solutions.

There was, therefore, a critical need to migrate the TARS from the physical datacentre to an AWS platform.

The migrated system went live ahead of deadline, enabling DVSA to exit a costly datacentre contract. Since the migration, DVSA has enjoyed a reliable and stable service. In addition, the DVSA has been able to adopt agile ways of working and the system is well positioned to support the integration demands of other Digital Delivery Programmes.



Driver & Vehicle
Standards
Agency

Case Study: Enhancing the HS2 Notice Production System

BJSS developed and enhanced the HS2 Notice Production System, an Azure-hosted solution that streamlines the process of gaining legal access to land. When commissioned, the HS2 line will run between London, the West Midlands, Leeds and Manchester.

During the construction process, the HS2 land and property team is required to obtain legal approval to purchase land – an extremely complex and time-consuming process.

The Notice Production System enables the HS2 land and property team to instruct land referencing agencies and to generate legal clauses for those impacted by the build of the railway. The system also fully-automates the process of gaining legal access to land.

HS2

Case Study: Better information for paramedics in the field

BJSS worked with the NHS Identity team to create a new cloud-based Identity app. This involves the input of user fingerprints into the mobile app. By using Touch ID on the iPad, the NHS Identity app eradicates the need for a smartcard or being on the HSCN. So far, 4,500 iPads have been issued to staff.

“You’ve then got access to all the patient records that we never had access to on the road, so that is transformational,” says Ross Fullerton London Ambulance Service CIO. “Our staff absolutely love the fact that it’s really easy – it’s not another password and another thing to remember. It’s access to the basic information they need about a patient to deliver better care on-scene.”

Crucially, the engagement has demonstrated an ability to reduce the need for patients to be admitted to A&E as paramedics can deliver informed treatment at the scene of the emergency. As the solution develops, it is anticipated to reduce the burden on London A&Es further and provide emergency care faster than ever before.

NHS

Digital

CLOUD & PLATFORM

Cloud Architecture Design Services

BJSS provides cloud architecture expertise throughout the cloud journey, suitable for any context and level. BJSS Architects are AWS, Azure, and GCP-certified, ensuring alignment to cloud architecture best practice and compliance with workload-specific governance requirements, GDS Service Standard, and TCoP. Solutions are tailored to clients' strategies.

Service Features:

- > Architecture review, assessment, and assurance
- > Architectural roadmap definition and prioritisation
- > Alignment to agile delivery practices
- > End-to-end solution design
- > Pattern-based approach to enable standardisation and reuse
- > Cloud security in line with NCSC risk management guidance
- > Hybrid cloud architecture to align and transition legacy
- > All BJSS Cloud Architects hold AWS/Azure/GCP certification.

Service Benefits:

- > Can apply agile, waterfall, or hybrid methodology
- > Extensive experience of public sector cloud delivery
- > Security-cleared resources
- > Alignment to best practice frameworks, such as AWS Well-Architected
- > Maximises benefits of cloud adoption
- > Over ten years' experience of designing cloud solutions
- > Aligns to other BJSS services, delivering a consistent approach.

CLOUD & PLATFORM

Cloud Cost Management and Optimisation Services

BJSS' Cloud Cost Management and Optimisation Services maximise the value of public cloud. BJSS' service provides customers with visibility and control over cloud spend. Optimisation encompasses cost optimisation (right-sizing and purchase plans), architectural optimisation (serverless and containerisation), and service optimisation (autoscaling and automation).

Service Features:

- > Workshop to understand cost management and optimisation concepts and options
- > Identifies quick wins via health check and billing profiles examination
- > Designs a target process using appropriate tooling and working practices
- > Reviews possible automated tooling options, with POC and demo
- > Develops target operating model to embed cloud services
- > Continuous monitoring and development with automation
- > CloudHealth partner
- > Optimisation roadmap
- > Tailors cost dashboards to stakeholder requirements.

Service Benefits:

- > Prioritises cost optimisation activities and initiatives
- > Links cost optimisation activities to beneficial impacts
- > Vendor-agnostic and customer-centric tailored solution
- > Benefits from numerous engagements in cost management
- > Uses cloud cost management expertise to identify savings
- > Embeds evolution principles within cost management processes
- > Facilitates vendor-specific cost reduction
- > Expands cloud services with peace of mind over cost control
- > Provides IT-as-a-service easily to lines of business
- > Offers insight into future cost savings.

CLOUD & PLATFORM

Cloud Landing Zone

BJSS' Enterprise Cloud Landing Zone is built upon >10,000 hours of AWS, Azure, and GCP design and deployment experience, and provides the foundation for any cloud adoption.

BJSS Enterprise Cloud Landing Zone provides rapid deployment of secure multi-account/subscription structure through an automated CI/CD pipeline using Infrastructure as Code (IaC).

Service Features:

- > Configured, secure, enterprise cloud environment based on best practices
- > Centralised governance and compliance; migrate applications or build new experiences
- > Extensible framework with infrastructure coding standards
- > Compliant to Well-Architected frameworks
- > Aligns to standards such as NIST and CIS
- > Pre-provisioned experience through code
- > Common tooling to simplify operations and maximise support staff utilisation
- > Intuitive deployment architecture, enables rapid upskilling of DevOps best practices
- > Provides data and metrics for sustainability management
- > Integration with centralised identity management.

Service Benefits:

- > Ensures enterprise-wide resource visibility and management across workloads
- > Vending capability that enables automated deployment of additional accounts/subscriptions/projects
- > Accelerates cloud adoption; starting point for new development and experimentation
- > Mitigates risk, builds in enterprise security, monitoring, and guardrails
- > Reduced time to value for all cloud and application deployments
- > Rapid onboarding, allows integration of existing client workloads and tools
- > Starting point for the application migration journey
- > Environment allows for iteration and extension over time
- > Future proof architecture accommodates new cloud services and future patterns
- > Flexible engagement model, enabling knowledge transfer and upskilling.

CLOUD & PLATFORM

Cloud Maturity Assessment

Structured exercise, applying a standard cloud maturity assessment framework, tailored by BJSS to align to your business. Provides insight on challenges, relative strength of critical cloud capabilities. Enables capability improvement and/or can be used as a baseline when planning a wider cloud transformation.

Service Features:

- > Tests alignment of cloud and business strategies
- > Evaluates strategy enablement through cloud architecture, tooling, platform review
- > Evaluates cloud practices, technologies, and operating model against ambitions
- > Maturity heat map of chosen areas for quick reference
- > Recommendations for next steps, such as cloud competency centre
- > High-level business case justifying improvement funding required
- > Performed by cloud specialists through interviews and documentation review
- > Considers practical aspects of cloud governance
- > Generates overall score with individual scores for each category
- > Assessment tailored to your industry and organisation.

Service Benefits:

- > Assess current position versus maturity model, based on experience
- > Quickly understand ability to execute across all business aspects
- > Pinpoint areas of focus to optimise cloud adoption
- > Produce actionable recommendations on improvements for each aspect
- > Understand objective size in order to unlock required investments
- > Contrast different business areas to learn from success
- > Allow improvements to be tracked over time
- > Support informed decisions on target maturity for your own circumstances
- > Flexible engagement optimises cloud journey and uses best practice
- > Leverage BJSS' long-standing expertise and experience with many organisations.

CLOUD & PLATFORM

Cloud Migration Services

BJSS has expertise in the migration of public sector workloads to the cloud. BJSS has developed a range of techniques for the successful discovery and migration of workloads to align with strategic goals, and for assisting organisations in embedding the processes to enable best practice.

Service Features:

- > Migration including AWS, Azure and GCP
- > A proven approach based on years of experience
- > Any workload from on-premises environments, hosting facility, or public cloud
- > Assessment (and optimisation) of ongoing costs
- > Accelerator templates for migrations between common platforms
- > Support during and after migration
- > Audit and compliance with cloud supplier implementation architectures
- > Security compliance built into designs up to OFFICIAL-SENSITIVE level
- > Rationalisation assessment to combine multiple on-premises and cloud infrastructures
- > Includes discovery assessment, readiness and planning, migration, and operations.

Service Benefits:

- > Extensive experience of large-scale mission-critical data and applications migration
- > TCO reduction based on optimised use of instances
- > Meets G-Cloud objective for two-year contracts
- > Simplifies future migrations
- > Able to manage complex network configurations including PSN integrations
- > De-risks delivery with effective Enterprise Agile approach
- > Substantial IT cost savings, productivity, business agility, and operational resilience
- > Accelerates time to value of your cloud migration
- > Methodology, best practices, tools, and services to accelerate migrations
- > Enterprise-ready environment, migrates production workloads in weeks versus months.

CLOUD & PLATFORM

Cloud Platform Delivery

BJSS' public sector delivery experts provide the expertise to design, build, and deliver best-of-breed cloud platform and hosting solutions. Following the Enterprise Agile delivery approach, BJSS uses Infrastructure-as-Code and automation to establish continuous delivery, enabling robust and secure deployment of services.

Service Features:

- > Platform designed by certified Architects and DevOps Engineers
- > BJSS holds 10+ competencies across AWS, Azure, and GCP
- > Design aligned to public sector governance requirements
- > Version-controlled Infrastructure-as-Code.
- > Automated provisioning and deployment
- > Operational needs addressed within deployment e.g., observability, auto-scaling
- > NCSC-aligned approach for secure design, build, and data transfer
- > Experienced technologists with in-depth understanding of cloud-centric government requirements
- > Extensive experience of both platform-native and agnostic tooling.

Service Benefits:

- > Ensures enterprise-wide resource visibility and management across workloads
- > Accelerates cloud adoption; starting point for new development and experimentation
- > Mitigates risk, builds in enterprise security, monitoring, and guardrails
- > Reduced time to value for all cloud and application deployments
- > Rapid onboarding, allows integration of existing client workloads and tools
- > Starting point for the application migration journey
- > Environment allows for iteration and extension over time
- > Flexible engagement model, enabling knowledge transfer and upskilling.

CLOUD & PLATFORM

Cloud Proof of Concept Services

A range of services to rapidly plan, design, implement, deliver, and host cloud proof of concept (PoC), proof of value (PoV), and pilots, delivered by experienced Architects, Analysts, and Developers. Additional ability to access funding from cloud providers, such as AWS, Azure, and Google Cloud (GCP) to reduce costs.

Service Features:

- > Architecture and design for minimum viable products (MVP)
- > Architectural expertise /guidance to define PoC, PoV, and pilot applications
- > Based on strong track record of PoC, PoV, pilot delivery
- > Project management of pilots including time-boxed exploratory activities
- > Business analysis and management of user feedback
- > Utilises low-cost, cloud-based infrastructure
- > Access to BJSS accelerators support rapid delivery.

Service Benefits:

- > Rapid definition and delivery of MVPs
- > Low-cost, cloud-based hosting lowers pilot costs and time to value
- > Ensures technical solutions are fit for purpose
- > Proves the business case for larger projects
- > Ability to ramp up successful pilots into full delivery projects
- > Increased confidence in functionality
- > Minimises the risk of making the wrong cloud investments
- > Build for re-use to reduce on-going investment (e.g., shared services)
- > Supports agile delivery of Discovery/Alpha/Beta/Live phases on GDS Service Manual.

CLOUD & PLATFORM

Cloud Security Services

BJSS provides continuous security, compliance, and governance for your cloud infrastructure, protecting critical data across public, private and hybrid cloud environments. Security architecture assessments, guardrail implementations, network threat detection, log management, vulnerability assessment, and web application protection services provide comprehensive security assurance to highly regulated workloads.

Service Features:

- > Cloud posture security management and cloud workload protection
- > Threat detection, intelligence, and modelling
- > Security incident and event monitoring
- > Security orchestration and automation response
- > Secure cloud landing zone
- > Validation and assurance of service designs and architectures
- > NCSC aligned cloud architectures
- > Identity and Access Management integration
- > DevSecOps engineering delivery
- > Azure, AWS, and GCP-certified Engineers and Architects.

Service Benefits:

- > Protect data and applications in on-premises, cloud, and hybrid environments
- > Proactive threat detection providing rapid notification
- > 24x7 'follow the threat' model
- > Managed deployment, configuration, tuning, and training
- > Continuous compliance without complexity, across CIS, PCI DSS, and HIPAA
- > Secure cloud platform deployment and drift management
- > Secure identity configuration and management
- > Privileged access management and monitoring
- > Embedding security into cloud delivery lifecycle
- > Alignment with security pillars of Well-Architected Frameworks.

CLOUD & PLATFORM

Cloud Software Development Services

Cloud software development services provided by an in-house team of over 2000 UK-based, skilled and experienced technologists, specialising in the delivery of high availability, enterprise-scale integrated software solutions. Services are available on-site, off-site, on a resource augmentation basis or as outsourced complete solutions or component delivery.

Service Features:

- > Skilled practitioners with full development lifecycle capabilities
- > Java, JavaScript, C#, .NET, Go, Python, Perl, HTML
- > Databases including PostgreSQL, MySQL, ORACLE, SQLServer, DynamoDB, CosmosDB etc.
- > Standards compliance: digital by default. FHIR, HL7, Spine, OWASP
- > User interface (UI) and User Experience (UX) design
- > Legacy modernisation and redevelopment
- > Integration with existing systems
- > Architecture, design, development and assurance services
- > Seamless integration with DevOps and support.

Service Benefits:

- > Expertise across the whole software lifecycle
- > Reliable software delivery backed by a proven track record
- > Flexible engagement models including fixed-price delivery
- > Cost-effective rapid iterative delivery
- > Architectural expertise to integrate with legacy business systems
- > 'No Surprises end-game' with fixed price and onshore resources
- > Realises benefits quicker with architectural development services via cloud
- > Utilises 29 years' experience of delivering complex software engineering projects
- > Employs cloud-native development capabilities.

CLOUD & PLATFORM

UK GOV PaaS Architecture Service

The GOV.UK PaaS service offers a cost-effective platform to host government services without the need for infrastructure specialists. This BJSS service will help you to understand if your existing or proposed architecture is suitable for hosting on GOV.UK PaaS, and propose changes to make optimal use of the service.

Service Features:

- > Assesses architecture designs against 12-factor methodology
- > Assesses architecture design against GOV.UK PaaS services
- > Aligns with GDS Digital Service Standards
- > Greenfield or Brownfield service architecture design
- > Researches best practices
- > Defines 'to-be' service architecture on GOV.UK PaaS
- > Refines service architecture backlog and generates service architecture delivery plan
- > Generates proof-of-concepts and defines detailed 'to-be' service architecture
- > Maintains architecture to reflect business strategy changes and project releases
- > Undertakes periodic reviews against product timescales and changing best practice.

Service Benefits:

- > Informs GOV.UK PaaS architecture with significant real-world pragmatic experience
- > Augments the existing team with experienced BJSS Cloud Architects
- > Timely, cost-effective, and risk-managed architecture delivery roadmap
- > Delivers IT services that provide strategic value
- > Delivers services that satisfy both functional and non-functional requirements
- > Reduces recurring operational costs and operational service risks
- > Meets GDS Service Standards by working with an experienced partner.

CLOUD & PLATFORM

UK GOV PaaS Delivery Pipeline Service

Effective use of the GOV.UK PaaS will require changes to your existing ways of building and deploying government services. Based on real-world experience of GOV.UK PaaS, BJSS will support you in migrating your existing build and deployment pipelines or creating new pipelines for government services on GOV.UK PaaS.

Service Features:

- > Alignment with GDS Digital Service Standards
- > Build and deploy pipeline assessment
- > Greenfield or Brownfield projects
- > Support for in-house tools and SaaS (on-premises Jenkins, Azure DevOps)
- > Assessment of key functional areas comparing 'as-is' state to 'to-be'
- > Maturity heat mapping for quick reference and transformation roadmap
- > Automation of build, deploy, test, release, and monitoring processes
- > Creation or modification of DevOps processes change and release management
- > Infrastructure automation and configuration management for additional services
- > Resource monitoring, application log monitoring, and application performance management.

Service Benefits:

- > Accelerates deployment on GOV.UK PaaS, utilising previous GOV.UK PaaS experience
- > Augments the existing team with experienced BJSS Engineers
- > Delivers IT services that provide strategic value
- > Delivers services that satisfy both functional and non-functional requirements
- > Reduces recurring operational costs and operational service risks
- > Reduces deployment failures by removing manual, error-prone tasks
- > Meets GDS Service Standards by working with an experienced partner
- > Creates standardised, consistent environments to streamline process
- > Minimises cycle time from idea, to development, to release.

CLOUD & PLATFORM

AWS Well-Architected Framework Assessment

A Well Architected Review delivery pattern that enables complete architectural analysis, remediation recommendations, and maturity roadmap by experienced AWS Professional Certified Architects, for a single AWS workload, within one week.

BJSS helps clients to address foundational AWS capabilities and provides a consistent approach to evaluating new architecture across five pillars.

Service Features:

- > Leading certified AWS Well Architected Partner
- > Undertaken by certified AWS Solution Architect Professional consultants
- > 150+ AWS-certified consultants holding 300+ certificates
- > Identifies secure, high performing, resilient, and efficient applications and workloads
- > Reviews security at all layers and recommends improvements
- > Ensures workload reliability meets business objectives
- > Running systems to deliver business value, improving processes and procedures
- > Protects information and systems, including confidentiality and integrity of data
- > Prevents failure and recovers quickly, meeting business and customer demand
- > Identifies best practices, measures workloads, and recommends improvements.

Service Benefits:

- > BJSS was the first accredited partner onto the WA programme
- > Applies architectural best practices and strategies
- > Identifies current capabilities and establishes target capabilities
- > Remediates critical issues and develops a maturity roadmap
- > Engenders culture of continuous improvement
- > Refines operational processes and maximises workload performance
- > Helps optimise costs, understand, and control where money is spent
- > Provides guidance on how to modernise and introduce new services
- > Rapidly learn about AWS and visualises potential business risks
- > Establishes view on sustainability of workload.

CLOUD & PLATFORM

Azure Well-Architected Framework Assessment

A Well-Architected Review delivery pattern that enables complete architectural analysis, remediation recommendations, and maturity roadmap by experienced Azure Certified Architects, for a single Azure workload, within one week.

BJSS helps clients to address foundational Azure capabilities and provides a consistent approach to evaluating new architecture across five pillars.

Service Features:

- > Consistent approach to evaluate architectures, and implement designs that scale
- > Undertaken by certified Azure architects and consultants
- > Identifies secure, high performing, resilient, and efficient applications and workloads
- > Reviews security and workload performance at all layers, recommends improvements
- > Ensures workload reliability meets business objectives
- > Runs systems to deliver business value, improving processes and procedures
- > Protects information and systems, including confidentiality and integrity of data
- > Identifies best practices, measures workloads, and recommends improvements
- > Learn architectural best practices and resilience strategies.

Service Benefits:

- > Understands current capabilities and establish target capabilities
- > Remediates critical issues and develop a maturity roadmap
- > Engenders culture of continuous improvement
- > Refines operational processes and maximises workload performance
- > Helps optimise costs, understand and control where money is spent
- > Provides guidance on how to modernise and introduce new services
- > Rapidly learn about Azure and visualise potential business risks
- > Prevents failure and recovers quickly, meeting business and customer demand
- > Operational excellence, security, reliability, performance efficiency, and cost optimisation.

CLOUD & PLATFORM

GCP Well-Architected Framework Assessment

A Well-Architected Review delivery pattern that enables complete architectural analysis, remediation recommendations, and maturity roadmap by experienced GCP Professional Cloud Architects, for a single GCP workload, within one week.

BJSS helps clients to address foundational GCP capabilities and provides a consistent approach to evaluating new architecture across five pillars.

Service Features:

- > Consistent approach to evaluate architectures, and implement designs that scale
- > Undertaken by certified GCP Professional Cloud Architect consultants
- > Identifies secure, high-performing, resilient, and efficient applications and workloads
- > Reviews security at all layers and recommends improvements
- > Ensures workload reliability meets business objectives
- > Runs systems to deliver business value, improving processes and procedures
- > Protects information and systems, including confidentiality and integrity of data
- > Prevents failure and quickly recovers to meet business/customer demand
- > Identifies best practices, measures workloads, and recommends improvements
- > Learn architectural best practices and resilience strategies.

Service Benefits:

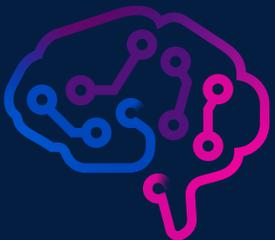
- > Understands current capabilities and establish target capabilities
- > Remediates critical issues and develop a maturity roadmap
- > Engenders a culture of continuous improvement
- > Refines operational processes and maximises workload performance
- > Helps optimise costs, understand and control where money is spent
- > Provides guidance on how to modernise and introduce new services
- > Rapidly learn about Google Cloud Platform, visualise potential business risks
- > Prevents failure and recovers quickly, meeting business and customer demand
- > Operational excellence, security, reliability, performance efficiency, and cost optimisation.

SERVICE

Data & AI

Improve your business insights, support effective decision-making, and generate outstanding customer experiences by adopting intelligent data solutions. BJSS has invested in a talented team of data scientists and data engineers who routinely deliver insightful production data science, enabling efficiency, cost savings and highlights potential new lines of business.

Within this service there are sixteen microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.



Artificial Intelligence and Machine Learning	BI and Data Visualisation Services	Conversational Artificial Intelligence Accelerator	Data as a Service
Data Governance Service	Data Maturity Assessment	Data Operating Model	DataOps Services
Data Platform and Architecture Services	Data Platform Managed Service	Data Strategy	Healthcare Analytics
Healthcare Data Platform and Architecture	Intelligent Products	IoT Services	Natural Language Processing Services

CASE STUDY

Protecting the vulnerable

In collaboration with NHS Digital, BJSS and Oxford University, the Department of Health and Social Care identified an additional 1.7 million Clinically Extremely Vulnerable individuals to be added to the Covid-19 shielding list. NHS Digital and BJSS made this possible by developing the Covid-19 Clinical Risk Assessment and Risk Stratification tools that have been designed to feed millions of rows of NHS patient data through Oxford University's risk-prediction model – QCovid®.

At the start of the pandemic, the risk factors of Covid-19 were fairly unknown. This, therefore, made it difficult for clinicians to identify those most at risk of dying from the disease.

Research commissioned by England's Chief Medical Officer uncovered several risk factors that could increase the likelihood of death from Covid-19. Using this insight, the University of Oxford developed QCovid – a Covid-19 risk-prediction model that is considered the first of its kind - to meet the highest standards of evidence and assurance.

NHS Digital and BJSS worked with DHSC from the outset to understand the data solution's use cases. A Discovery exercise was carried out, resulting in the identification of three requirements:

1. An online Clinical Risk Assessment tool allowing healthcare professionals to search for a patient's risk of dying from Covid-19
2. A Risk Stratification tool to process England's entire population through QCovid
3. An online Population Risk Assessment Viewer allowing GPs to view their patients QCovid risk assessment outcomes securely.

*BJSS did not store or access any NHS patient data throughout this delivery.

To create the Clinical Risk Assessment tool, the combined BJSS and NHS Digital team developed an AWS platform and online tool that interacts with the QCovid risk calculator through a secure set of APIs. When clinicians input patient data into the tool, the APIs run the information through the algorithm to provide an individual's Covid-19 risk. The tool's front-end follows NHS Digital's style guidelines, providing clinicians with a familiar and intuitive user experience.

BJSS and NHS Digital were then tasked with running England's entire adult population (aged 19-100) through QCovid. To achieve this, the team processed 46 million lines of patient data using NHS Digital's Databricks platform. The data was filtered down using a minimisation process, removing people with no recorded high-risk factors. Approximately 15.5 million people were identified to be processed through QCovid, culminating in an additional 1.7 million individuals being added to the shielding list. These individuals were yet to be selected for vaccination and were therefore urgently prioritised by their local GPs.

Furthermore, BJSS and NHS Digital developed a secure online web viewer to allow GPs to view details of the 15.5 million patients who were processed through QCovid. This data set contained patients who had some risk factors but were not considered to be Clinically Extremely Vulnerable. These patients were therefore not added to the Shielded Patients List. This secure online portal solution was delivered in just four weeks, utilising NHS Mail for multi-factor authentication, a DynamoDB authorisation solution, NHS Digital Databricks, AWS S3 buckets and Nextjs server-side pages.

The resulting solutions are classed as medical devices and have successfully received UKCA certifications.



CASE STUDY

National Highways progresses towards data-driven

National Highways is a government-owned company that is responsible for the operation, maintenance and improvement of England's motorways and major A roads. Its mission is to connect the country through better journeys.

To fulfil this mission in the future, BJSS has been working with National Highways to support its journey to a data-driven organisation. From designing and building a cloud-based data architecture platform to designing its service wrap and providing a clear view of data across the organisation.

Technological changes are altering the UK's transport network and roads, as well as our concept of mobility.

This presents several challenges and opportunities for National Highways and its Strategic Road Network (SRN). From a potential increase in demand on the SRN and infrastructure through to society's adoption of advanced technology.

To prepare for the new digital era, National Highways has developed an Information Vision and Strategy that sets out to future proof the SRN – the 4,500 miles of motorways and major A-roads at the heart of England's road system.

A fundamental aspect of National Highways' vision is its ability to utilise data to provide safe, reliable and better journeys for their customers. However, as with many large organisations, National Highways' data was dispersed right across the company on 10,000s of spreadsheets and disconnected systems.

To become a truly data-driven organisation, National Highways needed to bring its systems and data together to act as one. BJSS is helping National Highways to achieve this by delivering Data as a Service (DaaS).

We form one part of a wider supplier ecosystem that is working towards supporting National Highways' journey to a data-driven organisation. Our responsibility was to deliver DaaS – a critical enabler to National Highways' broader data programme.

Following an intensive four-week Discovery phase to identify the problem areas and user needs, we then delivered DaaS using an agile approach.

To deliver DaaS we:

- > **Developed a clear picture of the data held within National Highways.** This saw the team map over 80% of the data entities held within National Highways, building connections between them. We then produced a Proof of Value visualisation tool that makes the exploration of the ontology as easy as possible
- > **Designed and built a cloud-based data architecture platform.** Using Azure Databricks and Azure Synapse, our Cloud & Platform capability designed and developed a cloud-native data architecture platform. The platform, which is now fully owned by National Highways, allows any team to build data pipelines and deliver data projects in one place
- > **Designed and delivered a service wrap for the platform.** We defined and rolled out two services with collateral to support the platform – an adoption service and an operational service. The adoption service supports users who are looking to onboard project data into the platform. The operational service supports the management of the platform and ensures users can discover and access data.

The establishment of DaaS is a crucial first step in National Highways' data journey.

Case Study: Accurate referral forecasting at DBS

The Disclosure and Barring Service (DBS) processes 4.2 million applications a year, of which a significant proportion are sent to the police forces as referrals.

To ensure adequate staffing levels, DBS wanted to enhance its predictions of referral applications.

The BJSS Data Science team and DBS developed a time-series forecasting model for more accurate predictions of referral volumes.

BJSS hosted an intensive Data Science engagement to assess different forecasting models. The successful outcome of this activity informed the development of a PoC forecasting model which uses Facebook Prophet – open-source software designed for forecasting time series data.

The PoC enabled the production of an 18-month referral forecasts and demonstrated a 50% lower error rate than the legacy forecasting model, ensuring that staffing levels correlate more closely with demand.



Disclosure &
Barring Service

Case Study: Data science for oil field investments

Our client's existing process had previously been handled through Excel and VBA. This relied on many manual interventions and a time investment from Subject Matter Experts to build forecasts.

It created a very slow and user-heavy process to generate even a single forecast for a field. It was criticised for providing insufficient insight into the most important measurements to deriving quality of the field.

BJSS used modern Data Science techniques and a cloud-native architecture to provide rapid business value. By using Python and a range of Dimensionality Reduction and Regression tools – such as Principal Component Analysis and Random Forests – we validated a new forecasting algorithm against known historic data. This algorithm was demonstrably better than the existing process.

By combining our wider experience in cloud, Enterprise Agile and software delivery we delivered efficiency savings of around 25 per cent. We have also enabled greater insight and a better-informed decision making process that benefits the whole business.

Case Study: Simplifying travel bookings

ITV is on a mission to continuously modernise and improve. It wants to achieve this without damaging the culture, creative and commercial strength of its business. In light of this goal, the broadcaster wanted to understand how it could utilise AI technology to deliver modern and efficient ways of working for its staff.

A particularly expensive and frustrating process within the organisation was its in-house travel booking system. It was manual in nature, often taking over 15 minutes to book a single trip. As a result, ITV identified the travel booking system as the first process within the business that could benefit from AI technology.

The work with ITV commenced with the Define phase. Here ITV's AI vision was identified during a series of workshops, and users were interviewed about their experience of the travel booking process.

By working with BJSS, ITV was able to deploy an initial Chatbot prototype solution to test amongst users within three weeks. This was a phenomenal achievement considering ITV's uncertainty around whether users would accept AI technology.

DATA & AI

Artificial Intelligence and Machine Learning

Explore, adopt, and exploit the benefits of AI and Machine Learning (ML). Deliver predictive analytics, computer vision and conversational interfaces, and achieve digital transformation. Interactive workshops will explore possible opportunities and delivery, from Discovery to Live, and will ensure value and integration with business processes and existing technology.

Service Features:

- > Interactive workshops and research identify opportunities for AI and ML
- > Development of prototypes and pilots
- > User needs analysis to underpin Discovery and delivery
- > Data exploration to identify ML opportunities
- > DataOps approach and development of minimum viable algorithm
- > Data science Discovery covering technology, algorithm, architecture, and organisational impact
- > Development of voice and text conversational interfaces
- > Techniques for fraud detection, forecasting, optimisation, classification, and personalisation
- > Image and object recognition and classification
- > Experienced data scientists from a diverse range of backgrounds.

Service Benefits:

- > Support human decisions with machine learning capability
- > AI solutions developed for users based on user needs
- > Upskilling of your staff through working with BJSS experts
- > Automate repetitive effort and focus staff skills effectively
- > Integrate AI with existing infrastructure and processes effectively
- > Reduce cost, improve user experience with predictive techniques and personalisation
- > Support those less digitally capable with conversational interfaces
- > Prove value early and deliver data science solutions incrementally
- > Deliver ethical AI with experts in algorithmic bias and fairness.

DATA & AI

BI and Data Visualisation Services

Represent data effectively for users with the application of expert user experience and design. Build and deploy dashboards, custom visualisations and business intelligence solutions, including data platform implementation. Develop and visualise metrics and KPIs to inform decision making. Put data securely in the hands of staff, no matter their experience.

Service Features:

- > Design and implementation of self-service business intelligence solutions
- > User experience-driven approach to data visualisation
- > Modern data warehouse design and implementation
- > Development of custom dashboards to surface key metrics and KPIs
- > OLAP data modelling using approaches including data vault and dimensional
- > Visualisations designed by user experience experts
- > Custom visualisations designed and developed to best represent underlying data
- > Apply multi-industry best practice, including security and privacy
- > Publish visualisations to the web, opening data to citizens
- > Technologies include AWS, Azure, GCP, PowerBI, Tableau, Qlik, and D3.js.

Service Benefits:

- > Use performance data to support decision making and understand problems
- > Ensure and assure your KPIs represent performance effectively
- > Make decisions evidenced through real data
- > Put data securely in the hands of non-expert users
- > Reduce ambiguity of data through effective use of visualisation
- > Provide answers to a wide range of questions through self-service
- > Deliver value quickly and iteratively using cloud-native services
- > Ensure that visualisations portray data effectively by working with users
- > Ensure the privacy and security of your data
- > Simplify operation and customisation of visualisations.

DATA & AI

Conversational Artificial Intelligence Accelerator

A proven framework to help clients identify and generate value from AI with velocity and agility. In just three weeks, clients have a working prototype, solution blueprint, and a roadmap with a supporting business case enabling them to make an informed decision on how best to continue.

Service Features:

- > Holistic approach to designing and delivering the conversational AI assistant
- > A user-centric approach using service design methodology
- > Identifies and interviews end users
- > Maps out 'as-is' and 'to-be' technology landscapes
- > Builds prototype for the use case
- > Conducts user testing to iterate the solution
- > Designs the value proposition and builds business case
- > Creates roadmap to take the MVP live
- > Identifies use cases to expand scope of the conversational AI assistant
- > Creates chatbot persona and tone-of-voice, with best practice conversation design.

Service Benefits:

- > Working prototype to demonstrate the solution vision
- > Combined advisory, design, build, and architecture services
- > De-risks delivery using BJSS' scalable approach
- > Holistic technology-agnostic framework enables change of systems, removing rework
- > Solution remains available beyond sprint to support business case internally
- > Recommended roadmap for next steps and future phases
- > Assesses business value rapidly and reduces costs of delivery
- > Avoids wasted investment by avoiding unwanted features
- > Delivered features meet user needs
- > Project stakeholders learn about Conversational AI assistants through the framework.

DATA & AI

Data as a Service

Design of a compelling service around your data platform to unlock the potential of your data. Our holistic and iterative service design approach ensures that data platform initiatives successfully land within your organisation and meet user and business needs, be it for self-service analysis or to empower data science innovation.

Service Features:

- > Combine data architecture, engineering, and data science with design thinking
- > Passionate agile team focused on co-creative and transparent working
- > Collaboratively define a service vision and guiding design principles
- > Quantitative and qualitative research to generate insights around user needs
- > Stakeholder identification, engagement, and facilitation
- > Business analysis of landscape in which the service will operate
- > Detailed end-to-end, front-to-back service blueprints
- > Strategy alignment and roadmap to prioritise early delivery of value
- > Target operating model design and runbook to empower operational teams
- > Change management plan to support rollout to business as usual.

Service Benefits:

- > Seamless integration with BJSS' technical capabilities brings best-in-class expertise
- > Transparent, collaborative, and iterative working de-risks delivery and business engagement
- > Frequent user research ensures real needs are identified and validated
- > Vision, roadmap, and strategy alignment provide tools for engaging stakeholders
- > Service blueprints create clarity across all areas of the service
- > Designed for business and process integration to ensure successful adoption
- > Designed for users to ensure maximum uptake and outcome enablement
- > Knowledge management and transfer to build client skills and capabilities
- > Avoids the pitfalls of low-service offerings and drives ROI
- > Designed for longevity, adaptability, and evolution to support future needs.

DATA & AI

Data Governance Service

DAMA-DMBOK-certified professionals help you manage and protect your data with effective processes, tooling, and expertise. Ensure you apply appropriate good practice to your data catalogue, manage quality, mastery, lineage, metadata, security, and privacy of your data. Implement data ownership and stewardship. Ensure citizens can trust their data in your hands.

Service Features:

- > Advice on data governance practices/applications in your context
- > Apply best practices to secure your data in the cloud
- > Understand and implement effective privacy controls
- > Implement data mastery practices and tooling
- > Implement the cataloguing of data sources, owned and third-party
- > Assess data quality and implement measures to manage and alert
- > Profile your data and current governance process
- > Implement data traceability and lineage
- > Provide and guide data ownership and stewardship
- > Governance technology and tooling selection.

Service Benefits:

- > Protect your data from unauthorised access
- > Protect the rights of citizens whose data you hold
- > Make data widely and securely available and discoverable
- > Understand and improve your data quality position
- > Improve data quality and availability through effective ownership and stewardship
- > Respond to freedom of information requests more effectively
- > Respond to GDPR right requests effectively and efficiently
- > Apply necessary and sufficient governance with expert advice
- > Apply industry best practice contextually to your needs
- > Apply appropriate tools to minimise effort and maximise benefit.

DATA & AI

Data Maturity Assessment

Structured exercise, applying a standard data management maturity framework, tailored by BJSS to align to your business. Provides insight on challenges and relative strength of critical data maturity capabilities. Enables capability improvement and/or can be used as a baseline when planning a wider digital transformation or cloud migration.

Service Features:

- > Performed by data specialists through interviews and review of documentation
- > Tests alignment of data and business strategies
- > Evaluates data practices, technologies, and operating model against ambitions
- > Evaluates strategy enablement through data architecture, tooling, and platform review
- > Considers practical aspects of data governance (e.g., measuring data quality)
- > Generates an overall score with individual scores for each category
- > Assessment tailored to your industry and organisation.

Service Benefits:

- > Typically completed in two to three weeks
- > Provides comparison against a standard, continually improved by industry body
- > Leverages BJSS' exposure to many organisations and long-standing expertise
- > Used to contrast different business areas to learn from success
- > Supports informed decisions on target maturity for your own circumstances
- > Findings are placed in the context of your business
- > Produces actionable recommendations on improvements for each aspect
- > Allows improvement to be tracked over time
- > Can be focused on one data type or business area
- > Option to timebox the assessment exercise or limit depth.

DATA & AI

Data Operating Model

BJSS helps organisations get the most out of their data. After mapping existing data processes, stakeholders, and technologies, BJSS will design a target data operating model which builds upon existing capabilities, and prioritises key areas to improve based on technology and business priorities.

Service Features:

- > Mapping as-is data operating model through interviews and process review
- > Identifies and remedies shortcomings based on good practice
- > Designs a target data operating model tailored to your organisation
- > Addresses your existing constraints with people, processes, and technology
- > Develops end-to-end governance framework with policy, tooling, and processes
- > Supports compliance with local and international regulations
- > Provides a pragmatic roadmap for change
- > Supports change to the new operating model.

Service Benefits:

- > Understand target end state and gaps in current state
- > Realistic roadmap to reach target end state and address gaps
- > Builds on existing organisational strengths in context of your culture
- > Data is available to appropriate people for appropriate purposes
- > Clarifies roles and responsibilities through job descriptions and organisational chart
- > Leverages BJSS' experience with many organisations and long-standing expertise
- > Break through organisational silos to maximise value of your data
- > Can be linked to 'Data as a Service' offering.

DATA & AI

DataOps Services

DataOps combines agile, DevOps and Lean ways of working, promoting short cycle time, experimentation, and iteration, to deliver value from data-driven insights. Data teams benefit from on-demand environments, availability of data, and pipelines with built-in monitoring and quality to continually improve and nurture data condition.

Service Features:

- > Maturity assessment and recommendations for data, technology, people, and processes
- > Libraries and catalogues of repeatable patterns, practices, and services
- > Design and implementation of data processing pipelines and storage solutions
- > Industrialised data science; models and algorithms delivering predictions
- > Establish monitored data pipelines, track model drift and data distribution
- > Self-service access to data for analysis, experimentation, and BI
- > Data versioning, schema evolution, lineage and metadata management
- > Application of multi-industry best practice, including security and privacy
- > Work with co-located, blended, multi-disciplinary teams delivering data-led insights
- > Technologies including AWS, Azure, hybrid cloud and multi-cloud deployments.

Service Benefits:

- > Designed data workflows are implemented and delivered as code
- > Cost-optimised, scalable infrastructure supporting your current and future data needs
- > On-demand deployment of easy access environments using industry standard tooling
- > Build enduring capability for your teams through co-working and knowledge-transfer
- > Reduce cycle-times for data initiatives and experiments, delivering value faster
- > Provides quality, automated and integrated throughout the data lifecycle
- > Monitoring and management of bias and fairness during data processing
- > Track your data and model performance against key performance indicators
- > Data made available to better support business decisions
- > Ensure secure, reliable delivery of data and insights to users.

DATA & AI

Data Platform and Architecture Services

Design and implementation of modern data platforms, lakes, and warehouses to support evidence-based decision making, batch and real-time architecture, and analytical use cases. Utilise cloud-native data technology to get results quickly and at low cost. Includes non-functional aspects of data platform design, including data governance, security, and privacy.

Service Features:

- > Feasibility, analysis, planning, architecture, and implementation
- > Platform built by certified AWS, Azure, and GCP experts
- > DataOps approach to support continuous delivery and automation
- > Platform architecture to support full analytics lifecycle
- > Ingest and catalogue data sources
- > Security and privacy requirements addressed as part of deployment
- > Data governance process and tooling implemented
- > Service design employed to ensure data-as-a-service success
- > Deployment of business intelligence and self-serve capabilities
- > Technologies: Redshift, Synapse, Spark, Databricks, Glue, Data Factory, PowerBI, Tableau.

Service Benefits:

- > Secure data platform delivered iteratively to realise ROI throughout
- > Designed for users to ensure maximum uptake, avoiding common pitfalls
- > Centralised data to eliminate divergence
- > Highly scalable platform delivered ready for any analytical workload
- > Cloud-native capabilities ensure highly cost-effective platform
- > Allows organisations to react to events as they happen
- > Enables business and policy decisions to be evidenced in data
- > Transform data and build powerful analytics and visualisations
- > Ready for data science to unlock value in any data
- > Highly operable platform with significant telemetry built in.

DATA & AI

Data Platform Managed Service

Managed support of your data platform deployed in AWS, Azure, or GCP, ensuring the right expertise is at hand, and your platform supports a DataOps approach in production. We work closely with you to define a customised service suited to your needs, utilising a minimum viable service approach to take-on.

Service Features:

- > Single point of contact helpdesk providing responsive feedback
- > Flexible service level agreements to meet your bespoke needs
- > Incremental cost optimisation and year-on-year cost reduction
- > Service specialists with skills in data engineering and ETL
- > Transform data and build powerful analytics and visualisations
- > Centralised data to eliminate divergence
- > Experts in automation ensure efficiency of typically manual data operations
- > Ability to keep the platform evergreen, leveraging BJSS capabilities
- > Support for data platforms deployed in AWS, Azure, or GCP.

Service Benefits:

- > Cost-effective platform management
- > Reduction in cloud costs through effective cost optimisation
- > Secure data platform delivered iteratively to realise ROI throughout
- > Designed for users to ensure maximum uptake, avoiding common pitfalls
- > Highly scalable platform delivered ready for any analytical workload
- > Cloud-native capabilities ensure highly cost-effective platform
- > Allows organisations to react to events as they happen
- > Enables business and policy decisions to be evidenced in data
- > Ready for data science to unlock value in any data
- > Highly operable platform with significant telemetry built in.

DATA & AI

Data Strategy

BJSS helps organisations realise their full data potential and adopt modern data approaches. Defining a data strategy aligned with business and technology strategies is critical for organisations to get value out of their data. BJSS' expertise and approach bring unbiased and personalised advice to help organisations become data-driven.

Service Features:

- > Identify the breadth and importance of data in your organisation
- > Visualise data value chain: full view across ingestion, storage, consumption
- > Create a data strategy supporting your business strategy and objectives
- > Define strategy to best use your data and commercialise/commoditise it
- > Answer 'buy versus build' and 'on-premises versus cloud' questions
- > Provide technology and vendor selection aligned to your own requirements
- > Provide a pragmatic roadmap to deliver value early from strategy
- > Identify gaps in data availability and strategies to remediate them
- > Identify your data users and formulate strategies best serving them
- > Build compelling value propositions for end users to share data.

Service Benefits:

- > Drive business value and set strategic direction
- > Practitioner-led strategy
- > Experts who have helped organisations transform their data strategy
- > Speeds up your ability to extract insights from your data
- > Enables you to become a data-driven organisation for decision making
- > Optimise costs through consolidation, modernisation, and reduced maintenance
- > Compliance with policy and regulation
- > Define foundations to enable exploitation of data
- > Data becomes a tool to improve end user experience
- > Support open data initiatives and innovation.

DATA & AI

Healthcare Analytics

BJSS is an independent technology and data consultancy working across health and social care, providing a range of bespoke, secure platform-agnostic data science and analytics services to support the planning, delivery and performance management of effective, efficient, user-centred health and care services.

Service Features:

- > Maturity assessment and recommendations for data, technology, people, and processes
- > Big data analytics cloud platform on disparate health data sets
- > Data architecture, data dictionary, and data visualisation design and advisory
- > Self-service access to real-time data for analysis and experimentation
- > Data versioning, schema evolution, lineage, and metadata management
- > User research to identify personas, user needs, and journeys
- > Data science discovery covering technology, algorithm viability, and organisational impact
- > Data dictionary development including data cleansing rules and metric definitions
- > Data governance process and tooling implemented
- > Automation of standard NHS metrics and submissions (unify2, SUS+, etc.).

Service Benefits:

- > Reduces data wrangling and manipulation time, increases time to value
- > Allows organisations to react to and predict events
- > Transform data and build powerful analytics and visualisations
- > Centralised cleansed data to eliminate divergence
- > Supporting human decisions with machine learning and AI capability
- > Reduce cost and increase quality with prediction techniques and personalisation
- > Prove value early and deliver data science solutions incrementally
- > Deliver ethical AI with experts in algorithmic bias and fairness
- > Deliver appropriate role-based information, data, and visualisations
- > Productionising standardised data returns, freeing up time for bespoke work.

DATA & AI

Healthcare Data Platform and Architecture

As experts in healthcare interoperability, BJSS provides full lifecycle solutions for healthcare services, from strategy to managed service, e.g., UKHSA Halo. Service design and user experience-led to ensure high-quality, useful data is provided to help healthcare professionals make informed decisions on patient care and efficient use of resources.

Service Features:

- > Initial short feasibility, analysis, planning, architecture, and implementation review
- > Security and privacy requirements addressed as part of deployment
- > Implementation of data governance processes and tooling
- > UK-based ISO-compliant infrastructure and teams
- > Service design employed to ensure Data-as-a-Service success
- > Data strategy including data integration and warehousing
- > Core interoperability (e.g., open APIs, Record-Location, Event-Management, Longitudinal Record, PHR)
- > Technology-agnostic advice on platform solution and configuration.

Service Benefits:

- > Rapid view of the best platform model for your organisation/ICS
- > Adaptive, secure, flexible, customisable, and agile solutions
- > Experienced team who have deployed national platforms (e.g., e-RS, SPINE2)
- > Cost-effective solution engineering
- > Scalable across a patch/STP
- > Allows for rapid deployments and creation of data models.

DATA & AI

Intelligent Products

Solve business problems through the use of user-centric, AI-powered products. Adopting a lean-product approach, BJSS defines new value propositions and builds solutions designed with your users to help your organisation cut costs, increase efficiency, and generate new value streams.

Service Features:

- > Interactive workshops and research identify opportunities for AI and ML
- > Development of prototypes and pilots
- > User research to identify gains, pains, and jobs to address
- > User needs analysis to underpin Discovery and delivery
- > User-centric design to deliver compelling experiences
- > Lean product approach to build solution incrementally and minimise risk
- > Design and technology selection to best serve solution
- > AI core can be custom algorithms and/or off-the-shelf products
- > Proven approach to public Beta and support in production.

Service Benefits:

- > Support human decisions with machine learning capability
- > AI solutions developed for users based on user needs
- > Upskilling of your staff through working with BJSS experts
- > Automate repetitive effort and focus staff skills effectively
- > Integrate AI with existing infrastructure and processes effectively
- > Reduce cost, improve user experience with predictive techniques and personalisation
- > Deliver ethical AI with experts in algorithmic bias and fairness
- > Transform approach to delivering customer services.

DATA & AI

IoT Services

BJSS' Internet of Things (IoT) services span AWS, Azure, GCP, and open source, bridging physical devices to data platforms via data collection and processing. Provides insights through visualisation and advanced analytics. From Discovery to production, BJSS unlocks insights, service innovation, operational process efficiency, and value for citizens across the UK.

Service Features:

- > Discovery and Alpha projects to assess viability and user needs
- > IoT platform built by certified AWS, Azure, and GCP experts
- > IoT device, data, and operational security and privacy assessments
- > 'Secure by Design' compliant development and testing of IoT solutions
- > IoT Edge development, deployment, and management
- > Flexible and scalable IoT architecture to support specific business requirements
- > DevOps approach to delivery with continuous integration and assurance
- > Instrumentation of IoT devices to aid continuous improvement/fault detection
- > Design and implementation of predictive and prescriptive analytics
- > Technologies: AWS IoT, Azure IoT, MQTT, Zigbee/Z-Wave, NB-IoT, BLE, NFC/RFID.

Service Benefits:

- > Proven delivery of enterprise IoT solutions at scale
- > Validation of user needs/experience with expert designers and researchers
- > Discovery and Alpha provide validation and accurate estimates
- > Increased delivery frequency, predictability, and traceability
- > Compliance with the Government's 'Secure by Design' Code of Practice
- > Working knowledge of open-source IoT platforms and components
- > Agnostic technology approach ensures best use of available options
- > Highly reliable and efficient through automated testing and metrics
- > Improved customer experience and competitive advantage
- > Alignment of IoT strategy to other digital and data strategies.

DATA & AI

Natural Language Processing Services

Design and implementation of novel Natural Language Processing solutions, delivering automation of tasks typically reserved for time-consuming human activity. Discover opportunities, develop pilots, and deliver production solutions that reduce cost and improve citizen outcomes. Understand a variety of options from COTS to first principles data science, with expert agnostic advice.

Service Features:

- > Assess where NLP can be applied to your organisation
- > Architecture and development of NLP solutions
- > Undertake exploratory data analysis to expose key patterns in text
- > POC, MVP, and productionisation of NLP solutions
- > Implement document classification, document sorting, topic, and entity extraction etc.
- > Implement best practices in ongoing retraining
- > Implement public cloud NLP capabilities
- > Assess NLP ecosystem technologies, including open source and commercial
- > Integrate with existing processes and technical estate (e.g. CRM)
- > Upskill client staff.

Service Benefits:

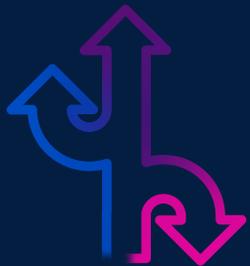
- > Understand opportunities and benefits that NLP offers to your organisation
- > Focus on ROI and path to production, not repeated POCs
- > Efficient use of specialist workforce through automation of workload
- > Iterative development, improving based on user feedback
- > Cut through a complex subject to provide real impact
- > Improve decision-making using free text in decision support
- > Advance organisational understanding of the benefits of NLP
- > Assess NLP technologies prior to committing to design and licences.

SERVICE

Strategy & Consulting

Recognise and capitalise on the opportunities available to you and gain a competitive advantage within your market. Our leading team of business and technology consultants has extensive industry, strategy and delivery expertise. With tight integration with our world-class engineering and design teams, our advice rapidly translates into the delivery of full working products.

Within this service there are nine microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.



CASE STUDY

Digital strategy review for NHSE&I Northeast & Yorkshire

It is anticipated that the establishment of Integrated Care Systems (ICS) will enable greater devolution as decision making shifts to a regional level. As Integrated Care Systems are established, there is an opportunity for NHS England & Improvement (NHSE&I) to examine the role of its regional teams and identify opportunities to support these new organisations.

This includes the programmes of digital change that are being planned and implemented regionally. NHSE&I wants to ensure it is able to support alignment where it makes sense: where there are common challenges and/or where its resources can be used more effectively to improve healthcare and wellbeing at both a regional and ICS level.

To this end, the NHSE&I North East and Yorkshire Regional Digital Transformation team sought a partner to undertake a strategy discovery to shape the future role and operating model of NHSE&I in supporting ICS digital delivery and the national NHS agenda.

NHSE&I engaged BJSS to work with the North East and Yorkshire Regional Digital Transformation team to understand its strategic aspirations and needs, as well as the challenges of implementing digital programmes and supporting initiatives across the region.

To achieve this, BJSS undertook a six-week strategic discovery, engaging with stakeholders representing a number of digital leaders, teams and bodies across the region to:

- › Review digital strategies and frameworks of each Integrated Care System and distil key themes, commonalities, differences, and opportunities for alignment across the region
- › Understand the ambitions and challenges of each Integrated Care System in terms of implementing its digital strategies and consider the role the region plays to support them
- › Reflect on the existing role of the region, its relationships with the four Integrated Care Systems, and potential remit for the future
- › Outline recommendations for changes and improvement to the regional alignment of plans and initiatives.

BJSS worked with the NHSE&I North East and Yorkshire Regional Digital Transformation team and ICS leaders to map the ‘Region as a System’, setting out the role of the regional team as a ‘servant-leader’, partnering/brokering knowledge exchange and leading on cultural transformation. In partnership, the teams developed a draft vision and approach to implementing the recommendations.

The outcome of the discovery was taken to the regional Digital Transformation Board in May 2021 and is being considered in the context of how NHSE&I can best provide support as Integrated Care Systems develop their digital maturity. It has shared a set of goals and metrics of success to be able to measure and invest in initiatives that drive the digital transformation of the region.



CASE STUDY

Delivering a market leading digital strategy roadmap

Chargemaster, the UK's biggest name in electric vehicle (EV) charging, is digitally transforming its business in order to maintain market leadership in an ever-evolving marketplace.

To accelerate its transformation journey, BJSS delivered an 18-month digital strategy roadmap for Chargemaster in just six weeks. The roadmap is anticipated to make Chargemaster Britain's most digitally savvy and accessible EV charging provider, which in turn could help it achieve a 630% annual growth rate.

Chargemaster needed to transform quickly. For consumers to qualify for an EVHS grant, the charging units had to be 'smart' and remotely accessible. Both features were lacking in the Chargemaster offering.

Using a Discover-Define-Design-Deliver framework, BJSS delivered an 18-month digital strategy roadmap in just six weeks. These aggressive delivery timelines were achieved through a range of agile ceremonies such as Sprints and Retrospectives, to ensure momentum and continuous improvement.

This programme has already enabled Chargemaster to modernise its infrastructure and deliver its first Minimum Viable Product (MVP). The MVP now allows users to control their home charging unit remotely.

BJSS provided Chargemaster with crucial insight into agile ways of working. This means that Chargemaster benefits from a delivery method that minimises risk, accelerates delivery, and allows it to continuously improve its product.

The successful delivery of the MVP is the first stage of a wider transformation project for Chargemaster. The roadmap and infrastructure implemented by the team will see Chargemaster continuously improve its digital user experience over the next 18 months.

CASE STUDY

Innovation and agile workshop with NHS Midlands

As part of the NHS' mission to become a fully digital health service, the sustainability and transformation partnerships (STPs) within NHS Midlands were tasked with refreshing their Local Digital Roadmaps (LDRs).

The STPs delivered the first drafts of their LDRs, which included a roadmap for their Local Health and Care Record (LHCR) programmes. The roadmaps were then reviewed by the local area team who required additional support to inject some innovation principles into the plans, as well as a view of how to get to a Minimum Viable Product (MVP). This programme of work involved BJSS providing coaching to the senior leaders around techniques to crowdsource innovation from within their organisations to create ambitious and achievable LDRs.

To kick-start the engagement, the healthcare leaders from across the region attended a workshop at BJSS' Birmingham office. BJSS consultants introduced a range of challenges and opportunities based on its experience from working with the health, public and private sectors. These ranged from Brexit to AI and automation. The delegates discussed and prioritised these issues and then using agile techniques moved to ideate and design prototypes to address these issues.

The attendees came away from the workshop armed with tools to support their discovery activity, which shaped the projects and their developing LDRs.

This included canvasses and techniques to embed innovation into programme design and supporting rapid prototyping and ideation activities.

The attendees are now more confident of their successes because of the coaching provided during the workshops. BJSS consultants also supported the attendees to become aware of agile ways of working within the confines of NHS structures.



STRATEGY & CONSULTING

Change Adoption

BJSS works with government organisations to ensure new technology, initiatives, or systems are successfully implemented and adopted by users. BJSS designs change approaches to use throughout delivery, and ensures teams are ready, willing, and able to adopt change. Change approaches encompass everything from impact assessments, communications, and engagement to training.

Service Features:

- > Consultants experienced in delivering change in agile and waterfall environments
- > Establishment of a clear vision, strategy, and case for change
- > Impact assessments to understand changes to people, process, and technology
- > Stakeholder engagement ensuring key stakeholders are bought into the change
- > Alignment of senior leadership to lead and support the change
- > Running of communication and engagement campaigns to communicate change effectively
- > Assessment of capability gaps, designing and delivering training
- > Standing up change networks to lead change on the ground
- > Benefits tracking of key metrics for change
- > Building change capability to ensure lasting benefit of change.

Service Benefits:

- > Employees are ready, willing, and able to adopt change
- > Proactively addresses change fatigue and resistance to change
- > Increased adoption of systems, practices, and processes across workforce
- > Increased return on investment for technology, system, or initiative implementation
- > Users engaged throughout the programme build knowledge and decrease resistance
- > Greater buy-in from teams and appetite to deliver to plan
- > Stakeholders receive the information they need at the right time
- > Increased visibility, realisation, and communication of programme benefits
- > Individuals across grades are empowered to deliver and champion change
- > Established change capability, enabling teams to deliver change in future.

STRATEGY & CONSULTING

CIO Advisory

BJSS helps CIOs and CxOs with advice and recommendations regarding a focused IT challenge in their organisation. Whilst the challenge is focused, considerations and analysis will be wide reaching. BJSS Consulting can provide advice to CIOs that is holistic, reliable, and independent.

Service Features:

- > Unambiguous and evidence-based answers to the original question
- > Concise and well-presented final report
- > Regular touchpoints throughout the delivery, ensuring expected outcomes are delivered
- > Iterative and collaborative methodology, ensuring fit-for-purpose results
- > Supported by Strategy and Architecture toolkit to accelerate outcomes
- > BJSS' agile and straightforward approach ensures tailored results
- > Structured methodology combines best practice and industry methods from experience
- > BJSS provides consultants with sector-specific knowledge, bringing industry insights
- > Pull through of SME experience from the BJSS delivery organisation.

Service Benefits:

- > Independent and unbiased view to help resolve conflicts
- > Evidence-based outcomes provide confidence to move forward
- > Flexibility to change as the analysis unfolds
- > Robust and demonstrable analysis to support decision making
- > Confidence that advice is grounded in real-world experience
- > Recommendations enhanced by BJSS practitioner and SME network.

STRATEGY & CONSULTING

Cloud Strategy

Creates – or advises on the creation of – a cloud strategy, in the context of wider IT strategy. Supports businesses to identify the desired outcomes from cloud adoption and utilisation, and how to measure success through identification of key performance indicators (KPIs). Addresses cloud myths and creates an adoption/maturity roadmap.

Service Features:

- > Builds strategy and tactics to deliver: business drivers, goals, objectives
- > Assesses Cloud Adoption Readiness across the business (including finance readiness)
- > Assesses maturity of existing operating model
- > Proposes approaches to ways of working, including governance and controls
- > Supports development of FinOps culture and capability
- > Security postures and approach appropriate to organisation's risk appetite
- > Creates a roadmap to map cloud journey
- > Provides approach supporting decision making, and risk and reward assessment
- > Examines cloud and hybrid options, technology services technology and vendor selection
- > Myth busting to separate substantive from insubstantial concerns.

Service Benefits:

- > Cloud strategy aligned to business strategy and IT strategy
- > Clear actionable strategy incorporating measures of success (KPIs)
- > Provides a co-ordinated, value-oriented vision to focus the organisation
- > New operating model to support cloud journey
- > Reduces risks by articulating goals and outcomes through the roadmap
- > Provides the actions to increase cloud maturity across the business
- > Delivers business outcomes sooner by aligning effort, focusing on goals
- > Supports and strengthens your business case
- > Clear decision frameworks for hosting and product selection
- > Clearly understood and managed cloud economics.

STRATEGY & CONSULTING

Enterprise Architecture

Enterprise Architecture (EA) provides a holistic understanding of an organisation's business and IT capabilities. EA practices align business and IT, to ensure the future business strategy can be delivered and the IT environment is optimised. EA manages and communicates an organisational vision and strategy to achieve the business objectives.

Service Features:

- > Creation or improvement of an organisation's enterprise architecture capability
- > EA operations to plan, manage, and enable delivery of objectives
- > EA principles support the community in decision-making processes
- > Capability modelling, a shared definition of business and IT functions
- > Value chain map identifies dependencies between business and IT capabilities
- > Enterprise roadmaps to communicate when value is released
- > EA operating model manages the balance of speed and standards
- > Technology landscape: a comprehensive view of IT and its lifecycle
- > Enterprise strategy describing joint IT and business plan of action
- > Enterprise architecture model to visually represent the enterprise.

Service Benefits:

- > Effective enterprise architecture delivering pragmatic and actionable strategy and governance
- > Improved business value from the technology deployed
- > Traceable linkages between the organisation's business and IT strategy
- > Support to align technology procurement with the needs of strategy
- > Accurate delivery roadmap planning through effective application interdependency identification
- > Visual roadmap of enterprise change and value release
- > Optimises the technology landscape to manage efficiency, risk, and complexity
- > Forecasts the technology capabilities required to deliver the business vision
- > Enterprise architecture rapidly facilitates strategic change.
- > Enterprise architecture models for communication and analysis of the landscape.

STRATEGY & CONSULTING

IT Strategy

Technology strategy created through the pragmatic lenses of people, process, technology, data, and service. Informed by BJSS' experience of designing and delivering robust and efficient technology services in a broad range of environments. BJSS' bias towards action will provide a clear, grounded, and actionable plan to achieve an organisation's objectives.

Service Features:

- > Alignment of strategic business objectives to enabling technology drivers
- > Impact assessment of new technology to IT operating model
- > Advisory and insight on future technology landscapes and IT services
- > BJSS' proven strategy toolkit produces actionable roadmap and grounded outcomes
- > Ensures technology costs are measured and linked to business value
- > Analysis of technology industry skills and operating model trends
- > Agile creation and delivery of strategy, roadmap, and operating model.

Service Benefits:

- > Strategy mapping to demonstrate how investment will deliver business value
- > Understand the opportunities, benefits, and risks when considering technology change
- > Co-creation approach is tailored to each organisation enabling rapid adoption
- > Understand where technology may add value or be value destructive
- > Strategy and technology recommendations are vendor-agnostic
- > Higher quality software delivered through adopting BJSS SDLC practices.

STRATEGY & CONSULTING

Operating Model and Organisation Design

BJSS ensures the right people, processes, and technology are in place to achieve strategic objectives, managed and measured by KPIs, cost reduction, or revenue generation. BJSS undertakes an appraisal of the current operating model to identify opportunities for improvements. Recommendations are supported by implementation plans and the required change management.

Service Features:

- > Strategic value-based backlog creation and management techniques
- > Demand management process design to align effort to strategic imperatives
- > Identification/categorisation of pain-points, opportunities for improvements, and what works well
- > Review of current organisation structure and identification of missing roles/skills
- > Design of target operating model to deliver strategic objectives
- > Benchmarking against industry standard models and functional department headcount ratios
- > Role-based capability assessment
- > Incorporation of cloud and data operating needs into existing model
- > Business case to support new operating model and structure
- > Implementation roadmap, taking into consideration required change management.

Service Benefits:

- > A holistic approach to operating models encompassing business and technology
- > Clear view of current processes and activities across teams
- > Outcomes supporting either waterfall or agile methodologies
- > Confidence that cost saving or efficiency objectives can be achieved
- > Pragmatic plan to deliver new operating model or organisation design
- > Considered approach to the change management required to implement change
- > A collaborative approach to ensure teams do not feel threatened
- > Understand of skills gaps and approaches to close the gap
- > Clear view of current processes and activities across teams.

STRATEGY & CONSULTING

Strategic Advisory

BJSS works with senior leadership teams to help them overcome challenges, respond to changes in internal or external factors, and to set or achieve their strategic objectives. BJSS takes a holistic view across business and technology to provide reliable and independent advice and recommendations.

Service Features:

- > Unambiguous and evidence-based recommendations
- > Comprehensive review of internal or external considerations
- > Concise and well-presented recommendations and reports
- > Business case or supporting financial model for recommendation
- > Pragmatic roadmap to deliver solutions
- > Considerations across people, process, and technology.

Service Benefits:

- > A collaborative approach with a trusted partner
- > Consultants with experience in public sector advisory
- > Experience across business and technology
- > Independent and unbiased views
- > Flexibility to change and adapt as analysis unfolds
- > Robust and demonstrable analysis to support decision making
- > Advice grounded in real world experience.

STRATEGY & CONSULTING

Sustainability by Design

Applying our framework we will partner you on your net zero journey. We will assess and redesign your operating model and operational processes, driving carbon out. We will transform and deliver changes to your operating model and value chain to reduce emissions, and build your Centre of Excellence and continuous improvement (CI) capability.

Service Features:

- > Redesigning end-to-end process to reduce scope one to three emissions
- > Redesigning and implementing a sustainable operating model
- > Implementing ways of working to drive down GHG emissions
- > Utilising cloud technology and tools, reducing waste and energy consumption
- > Optimising how you communicate with customers, driving out paper
- > Insight-driven design and continuous improvement
- > Expertise in delivering sustainable cloud solutions.

Service Benefits:

- > Achieve enterprise-wide collaboration to achieve your Net Zero objectives
- > Reduction in environmental impacts across target areas
- > Governance and reporting functions to understand and monitor carbon emissions
- > Streamlining and automation of processes to improve your efficiency
- > Attract/retain employees who want to make a real difference.

STRATEGY & CONSULTING

Technology Assessment

Independent and unbiased assessment of an organisation's existing technology, strategy, operating model, and IT estate against its objectives. Informed by BJSS' experience of running and delivering robust and efficient technology services in a broad range of environments, this will provide a strong basis to build or improve existing technology strategy.

Service Features:

- > Technology estate assessment against business functional capabilities and non-functional capabilities
- > Assessment of ability to evolve technology capability at required pace required
- > Six lens risk assessment: strategic, financial, regulatory, security, reputational, technical
- > Structured assessment of IT costs and benchmarking to industry standards
- > Vendor and service provider management assessment
- > Software Development Lifecycle (SDLC) assessment
- > Architecture review of deployed technology and architecture, and design practices.

Service Benefits:

- > Independent, unbiased, technology-agnostic assessment
- > Long-standing experience of designing, delivering, and maintaining IT estates
- > Evaluation of whether planned investments will deliver business value objectives
- > Understanding where IT risks could inhibit achieving desired outcomes
- > Actionable pragmatic recommendations to evolve IT strategy, roadmap, operating model.

SERVICE

Design

SPARCK is our leading-edge design brand. We design and deliver innovative products, services and experiences that create value for your organisation and the people you serve. By transforming the UK's driving test, to re-imagining the way you charge an electric vehicle at home, we're proven to design great things. We help you deliver them too.

Within this service there are seven microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.

Accessibility Services

Content Design
and Strategy

Conversational
Design

Design Capability
and DesignOps

Service Design

User Experience and
Product Design

User Research



Case Study: Integrating UX design at the Met Office

BJSS teamed up with the Met Office to perform both user research and design around four of its core services – Meteorological Operational Service Transformation, Service Water Flooding Hazard Impact Model, Weather Observations Website and Network Weather Resilience.

Each service uses the Met Office's data in a different way to provide detailed information to Government, transport and industry decision makers. By working with BJSS UX consultants, the Met Office was able to take a step back and examine their services from a user perspective. Usability testing was carried out, user journeys were analysed, and prototypes were rapidly designed to test out with users. This was carried out over a four-week period for each service, providing the Met Office with in-depth insight into the users of each service and access to user-tested prototypes, which are now being used to redevelop these services. As a result of this engagement, the Met Office has a greater understanding of UX research and design and is enabled to produce user-centric, commercialised services.



Case Study: Digital interviewing

To deliver a new digital channel for asylum seekers and their solicitors to receive interview transcripts through a public online portal, the Home Office engaged BJSS to complete user research and propose a solution that met GDS, security, assisted digital and accessibility requirements.

Having delivered the research and several functioning prototypes, BJSS iteratively created four different clickable prototypes in Axure following GDS guidelines using insights from the user research, testing, and check-ins. We ensured the prototype covered all key user needs and laid out a roadmap for future iterations.

These prototypes were adopted in the production rollout, allowing the Home Office project team to secure Treasury funding for the second round of development to further improve the portal.



Case Study: Bringing pathology services to the home

This leading pathology service provider is a unique scientific organisation that aims to transform pathology services across the UK. The company recognised that the future of pathology services lies partially in providing the B2C market with home diagnostic services.

In a rapid 16-week engagement, the client was able to understand how it would best provide a digital testing service to the public. The project commenced by prioritising user groups and building out a plan for engaging with these groups. User interviews and workshops were conducted with a real audience of patients that suffer from Vitamin B12 deficiencies. This process helped the team understand what users needed from a digital testing service.

The client's operating model was then assessed, and business design advice was given to enable the successful delivery of a truly digital service. Following this, SPARCK rapidly designed wireframes, information architecture and a visual design language to take forward into a prototype.

This resulted in a working pilot application that is being tested with real users. Within two weeks, the service attracted over 200 new customers every day.

DESIGN

Accessibility Services

BJSS helps government ensure services are accessible for all, meeting WCAG 2.1 AA and GDS standards. Having delivered over 40 GDS-assessed services, BJSS is expert in ensuring accessibility for new and existing services. This is achieved via a citizen-centric approach, with in-depth user engagement and testing at every stage.

Service Features:

- > Fully aligned to GDS service standards and GOV.UK's UCD principles
- > Accessibility audits and testing of existing services to ensure compliance
- > Fast-paced design sprints to develop accessible prototypes to test
- > 'Empathy lab' approach to simulate user impairment
- > Assistive technology research and review
- > 'Road to accessibility' strategies and roadmaps, co-created with stakeholders
- > Development of accessible design systems and playbooks
- > User research testing with citizens and staff with accessibility needs
- > Traceability of accessible user needs through design and development
- > Assisted digital advice and strategies.

Service Benefits:

- > Services are fully inclusive and designed for all citizens' needs
- > Accessibility guidance and experience to exceed GDS standards
- > Digital estates are fully accessible, meeting Web Content Accessibility guidelines
- > Clear recommendations for ensuring internal systems meet accessibility regulation
- > Accessible experience for all users across digital and offline channels
- > Clear and actionable assisted digital and assisted technology strategy
- > Upskills internal designers and stakeholders, building accessibility capability
- > Embeds a culture of 'accessible first' across your organisation
- > Fosters improved digital service adoption, minimising exclusion from new services
- > Accessibility of existing services improved via rapid design sprints.

DESIGN

Content Design and Strategy

Our Content Designers research, design, and test content that allows people to find, understand, and access what they need from government. They follow the principles and standards established by the Government Digital Service, always starting with user needs, and have experience working on projects across the public sector.

Service Features:

- > Content Designers experienced in content strategy and design
- > Aligned to GDS service standards and GOV.UK's UCD principles
- > Design-thinking approach to facilitate co-design workshops, collaboration, and stakeholder engagement
- > Consultants experienced in end-to-end content design from Discovery to Live
- > Researching and identifying user needs
- > Rapid prototyping, testing, and iteration
- > Access to an established content design practice, tools, and techniques
- > Content transformation, migration strategy
- > User needs' traceability through design to delivery
- > Iterative approach and agile methodology to deliver value early.

Service Benefits:

- > Content is designed to deliver citizen and organisational outcomes
- > Co-design with users/stakeholders to fix pain points and meet needs
- > Providing experience and guidance at each stage of GDS assessment
- > Content is fully accessible and meets web content accessibility guidelines
- > Adaptable in working to organisational style and tone of voice
- > Low-risk exploration due to lean and rapid prototyping
- > Effective across digital, offline, and real-world channels
- > Collaboration with interdisciplinary teams , delivers user-friendly, viable solutions
- > Help upskill Content Designers and stakeholders in content design techniques
- > Outcomes delivered first time, by leveraging experience in content development.

DESIGN

Conversational Design

BJSS works with clients, using a user-centric approach to deliver bespoke conversational design in line with a proven framework. BJSS works collaboratively to identify conversation flows, hand-offs, and the bot persona, and brings it to life in a prototype to enable user testing and iterative changes.

Service Features:

- > Bespoke conversational design to engage end users
- > User-centric approach to designing conversation flows
- > Defined personas in line with the organisation's tone of voice
- > Designed conversational flows iterated through testing with end users
- > Trains on range of intents to showcase maturity of NLP
- > Builds prototype to demonstrate the use case
- > Employs best practice for error handling
- > Embeds human intervention for out-of-scope queries
- > Employs best practice for ongoing training and user engagement.

Service Benefits:

- > Delivers best practice for conversational design
- > Allows conversations to be prototyped early and iterated rapidly
- > Bot persona drives strong brand recognition and user experience
- > Improves user engagement and service adoption
- > Reduces human handling time and costs
- > Allows services to scale and flex cost-effectively with demand
- > Provides a seamless experience between bot and other services
- > Upskills internal designers and BAs for AI solutions
- > Adopts service design techniques to consider the end-to-end journey.

DESIGN

Design Capability and DesignOps

The design mindset is central to creating long-term value and delivering people-centric services. We work with clients to assess and systematically improve their design maturity. Moving beyond visual aesthetics, the design mindset and capability is a strategic asset that helps organisations to reimagine products, service, experience, and business models.

Service Features:

- > Assess current design maturity level and identify key gaps
- > Define vision for the role of design within organisation
- > Create a strategic narrative for the value of design
- > Develop a business case to illustrate the impact of design
- > Define tools, structures, capabilities, and processes required to uplift maturity
- > Build capabilities using mixed methods: coaching, champions, workshops, prototyping, playbooks
- > Design processes and systems that incorporate design throughout the organisation
- > Support implementation and adoption of new measurements, processes, and systems
- > Build a sustainable culture based on core design principles.

Service Benefits:

- > Leadership alignment, buy-in, and commitment for investing in design
- > Mobilise and enthuse organisation about the benefits of design
- > Understand design maturity strengths, gaps, constraints, and priorities
- > Action-oriented roadmap for where and how to improve
- > Tangible assets that can be used to drive rapid change
- > Build tailored design systems, processes, and assets fit for you
- > Robust capability plans that build on current strengths
- > Expertise from Strategists, Service Designers, Product Designers, Researchers, Content Designers
- > Human-centred and iterative approach to culture development and capability building
- > Learn how to: work better together, deliver effectively, create impact.

DESIGN

Service Design

BJSS' Service Design focuses on improving the quality of interactions between an organisation and its users. Working with people to understand pain points and user needs, BJSS designs new ways of organising people, infrastructure, and technology to deliver great customer experiences while identifying opportunities to deliver new organisational value.

Service Features:

- > Service Designers experienced in complex government product and service design
- > Fully-aligned to GDS service standards and GOV.UK's UCD principles
- > Design thinking approach frames problems in a user-centric way
- > Systems thinking identifies opportunities for sustainable and enduring change
- > Aligns user, technology, and business to the user journey
- > Clarifies complexity through visualisation techniques, such as service blueprints
- > Facilitates user and stakeholder collaboration in research, design, and testing
- > Facilitates collaboration across department and capability
- > Traceability of user needs through design and development to delivery
- > Iterative and agile methodology designed to deliver value early.

Service Benefits:

- > Design end-to-end services that deliver citizen outcomes
- > Co-design with users and stakeholders to fix critical service pain points
- > Create services that meet user needs and fix pain points
- > Providing experience and guidance at each GDS-assessed stage
- > Create sustainable services that align user, organisational, and technical needs
- > Defined design principles and systems, driving future development efficiency
- > Consistent experience across digital, offline channels, and physical touchpoints
- > Effective service experience across digital, offline channels, and physical touchpoints
- > Upskill internal designers and stakeholders in user-centred design techniques
- > Drive joined-up delivery of multiple product and service teams.

DESIGN

User Experience and Product Design

BJSS works with clients to design and develop effective user-centric products and services, by deploying a full range of user experience design skills. This includes deep research expertise, end-to-end service design, product prototyping, interaction design, visual design and content design, with specific specialism in accessibility, inclusion and assisted digital provision.

Service Features:

- > User Experience Designers experienced in government product and service design
- > Fully-aligned to GDS service standards and GOV.UK's UCD principles
- > Design-thinking approach to facilitate co-design workshops and rapidly prototypes
- > T-shaped consultants experienced in end-to-end user experience design from Discovery-Live
- > Researching and identifying user pain points and needs
- > Rapid low-to-high fidelity prototyping and user testing
- > Visual and content design, development of design systems and playbooks
- > Facilitates user and stakeholder collaboration in research, design, and testing
- > Traceability of user needs through design and development to delivery
- > Iterative and agile methodology designed to deliver value early.

Service Benefits:

- > Products and services are designed to deliver citizen outcomes
- > Co-design with users and stakeholders to fix critical service pain points
- > Provides experience and guidance at each GDS assessed stage
- > Services are fully accessible and meet Web Content Accessibility guidelines
- > Design principles and systems defined, driving development efficiency
- > Low-risk solution exploration due to lean and rapid prototyping
- > Effective user experience across digital, offline channels, and physical touchpoints
- > Collaboration with inter-disciplinary teams, delivers user-friendly, feasible, viable solutions
- > Upskills internal designers and stakeholders in user-centred design techniques
- > Outcomes delivered first time, by leveraging experience in digital development.

DESIGN

User Research

BJSS' Digital Design Practice provides specialist user research consultants and methodologies, helping Government departments design user-centric products and services that meet Government Digital Services (GDS) and Web Accessibility standards.

Service Features:

- > Alignment to GDS and GOV.UK's design patterns and principles
- > Field studies, facilitation of co-design workshops, interviews, and online surveys
- > Proven and repeatable user-centric research techniques based on design thinking
- > Specialist techniques for assessing assisted digital needs for inclusive design
- > Usability testing and benchmarking to evaluate product design
- > Quantitative and qualitative research techniques
- > Research carried through and adapted for Discovery, Alpha, Beta phases
- > Approach tailored and adapted to client and user needs
- > Empathy, stakeholder, and eco-system mapping
- > Competitor and technology landscape analysis.

Service Benefits:

- > Actionable understanding of pain-points and needs for continual service improvement
- > Research ensures product and service development delivers desired user outcomes
- > Services are inclusive of all citizens and GDS standard assured
- > New value from user insight, delivering more impactful public services
- > Research informs effective citizen-centric design of the technical solution
- > Insight into citizen needs ensures success of digital transformation initiatives
- > Flexible and scalable resources and techniques for every project size
- > Research methods identify opportunities for experience improvements and service efficiencies.

SERVICE

Managed Service

Get back to focusing on your core business and concentrating on what you do best. Our innovative Managed Service offering is equipped to take on your ageing legacy platforms, resolve your people training and retention issues challenges, and efficiently modernise your technology estate. Our team support everything from government-grade products to heavily regulated financial services organisations.

Within this service there are four microservices illustrated on the right. The features and benefits of these microservices are highlighted in the following pages.

Cloud Modern
Managed Services

Managed Applications

Managed Data
Platforms

NHS Remote Desktop



CASE STUDY

Stabilising the Home Office's digital applications



Home Office

The UK Home Office is a ministerial department that is responsible for immigration, security and law and order. From 2010 to 2015 it underwent a radical transformation to become a digital department, which has revolutionised the way it interacts with the public and its customers.

BJSS provides a modern Managed Service to the Home Office, supporting several of its core digital services, including Managed Reporting Appointments, Atlas, and the Business Event and Streaming Service. This flexible and adaptable managed service is helping to ensure the stability and continuous improvement of these vital public services.

According to the ONS, 91% of all adults had recently used the internet, with almost all adults aged 16 to 44 (99%) being recent internet users. Today's citizens are consuming more digital services than ever before.

This shift in behaviour, combined with a need to improve the quality and efficiency of its services, led to the government implementing Digital by Default – an initiative designed to make all public services digitally accessible.

To align with this initiative, the Home Office underwent a significant digital transformation programme. The programme saw a complete modernisation of the department's infrastructure. This included the modernisation of the Home Office's immigration case working system – Atlas and the development of cloud-native applications such as Managed Reporting Appointments (MRA) and its Business Event and Streaming Service (BESS).

With several new digital services in place, the Home Office required a modern managed service to support and continuously improve the applications.

BJSS played an integral role in the development of Atlas, MRA and BES and was selected to take on the managed

service for each of these systems. This allowed for a smooth transition from the build phase into the managed service.

Our ISO27001 accredited Managed Service team initially took on the support for MRA. This tool is used by 14 Home Office reporting centres and is designed to track the status of illegal immigrants living in the UK. We ensure the stability and continuous improvement of the tool by providing incident resolution, problem fixes, release management and minor enhancements.

Having been involved in the build phase of Atlas – the Home Office's new immigration caseworking system – our Development team handed over to our Managed Service team who took on the management of the system's interfaces. Atlas is tightly integrated with several other systems across the Home Office, and our team plays an essential role in ensuring that data is fed into Atlas correctly. This service is highly collaborative, with the team working with numerous different suppliers to ensure the stability of Atlas.

Additionally, our Managed Service provides out of hour support for the department's Business Event and Streaming Service (BESS).

Case Study: Award-winning service management at the DVSA

ItSMF UK, the IT Service Management Community, awarded BJSS and its Technical Support Service (TSS), “Service Transformation Project of the Year” for its delivery to the Driver and Vehicle Standards Agency (DVSA).

The BJSS TSS offering replaced the DVSA’s traditional outsourced Service Desk and combines a Service Desk with key ITIL processes, agile development techniques and a DevOps culture. The service is provided from BJSS’ dedicated BJSS ISO27001-compliant facility and includes application and server support in addition to running and supporting cloud development and test environments.

Commissioned for the DVSA, TSS provides two core functions. Firstly, to provide incident and change management for MOT testers. Secondly, BJSS manages the production environment ensuring software updates delivered by other suppliers are fit for purpose. The service handles around 100 support tickets every day and has delivered over 180 update releases.

Case Study: Helping to expand individual placement

BJSS supported a not for profit organisation that partners with the government, the social sector and financial community to find better ways of tackling social problems in the UK and beyond, delivering a cloud-based reporting tool.

The reporting tool has been built with scalability in mind. By developing the tool as a cloud-native application, it is highly available and scalable so it can cope with fluctuations in demand. As the use of the reporting tool increases in line with the IPS Grow programme, our Managed Service team can rapidly scale the solution to meet demand. This level of agility and flexibility will be invaluable as they look to expand the programme.

Since the reporting tool has been live, it has incurred minimum downtime and high levels of availability. When issues have arisen, they are quickly resolved by our Managed Service team and its service desk and incident resolution capabilities. The tool is continuously improved and monitored by the Managed Service team, so the not for profit organisation can be confident that the solution is in good health.

Case Study: Ensuring business continuity

As a leading class action and international tax reclamation services specialist, a leading fintech has grown an impressive global client base of truly blue-chip organisations. However, the company’s IT operations did not mirror the company’s growth.

Its applications were unstable, and it was burdened by complex on-premise legacy infrastructure and applications. The legacy nature resulted in poor client experiences due to inefficient processes, elongated sales cycles due to long IT lead times and unacceptably high business risk.

Since our initial take-on of their IT services, our Managed Service team has carried out a major project to migrate all applications and data away from the company’s legacy on-premise systems and onto the cloud. We have also developed a piece of cloud-native software that has enabled the company to capture a 7% share of the lucrative US ADR market.

We have delivered a stable and modern managed service resulting in a 25 per cent reduction in ongoing infrastructure costs. The project has been a critical enabler of their digital transformation.



MANAGED SERVICE

Cloud Modern Managed Services

New paradigms, such as dynamic cloud resources, agile delivery, and 'end-to-end' product teams, appear to break traditional ITIL service management. BJSS provides an updated service management model that embraces traditional ITIL alongside cloud and modern software development techniques, to reduce delivery cycles times and maintain service availability.

Service Features:

- > Fully managed service customised to client service requirements
- > Observability: proactive monitoring and alerting
- > SPOC for third-party suppliers and the business
- > 24/7/365 monitoring and management
- > Real-time, automated, alerting and dashboards
- > Licence management of components within the cloud
- > Integration with incident and change management tools
- > Proactive cost and capacity management
- > Regular service reviews
- > Available as part of project team or an outsourced service.

Service Benefits:

- > Maintain availability of core systems through early failure identification
- > Flexible and scalable
- > Benefit from secure shared service to reduce costs
- > Quickly resolve incident with proactive monitoring
- > Continuous improvement through identification of persistently failing components
- > Evolve and mature cloud capability and visualise service in real-time
- > Leverage cloud-ready tools and processes
- > Minimise time from development to release
- > Reduced deployment failures
- > Takes best practice DevOps with best-in-class product ecosystem.

MANAGED SERVICE

Managed Applications

BJSS can help to manage your new applications that we build into the cloud, and manage what we optimise and migrate to the cloud, including providing you with effective CI/CD and DevOps toolchain management for hosted applications. We can include application performance management as a service.

Service Features:

- > Fully managed service customised to client service requirements
- > Observability: proactive monitoring and alerting
- > SPOC for third-party suppliers and the business
- > 24/7/365 monitoring and management
- > Real-time, automated, alerting and dashboards
- > Licence management of components within the cloud
- > Integration with incident and change management tools
- > Proactive capacity management
- > Regular service reviews
- > Available as part of a project team or outsourced service.

Service Benefits:

- > Maintain availability of core applications through early failure identification
- > Flexible and scalable, tailored to customer requirements
- > Benefit from secure shared service to reduce costs
- > Quickly resolve incident with proactive monitoring
- > Continuous improvement through identification of persistently failing components
- > Evolve/mature cloud capability and visualise service in real-time
- > Leverage cloud ready tools and processes
- > Minimise time from development to release
- > Reduced deployment failures.

MANAGED SERVICE

Managed Data Platforms

At BJSS, we can provide a one stop shop for all your data requirements, from infrastructure operations, to automated pipelines to business insight as a service. We can co-ordinate your Data Scientists, Engineers, and Operations to ensure delivery of timely and accurate insights in a constantly changing world.

Service Features:

- > Fully managed service customised to client service requirements
- > Observability: proactive monitoring and alerting
- > SPOC for third-party suppliers and the business
- > 24/7/365 monitoring and management
- > Real-time, automated, alerting and dashboards
- > Licence management of components within the cloud
- > Integration with incident and change management tools
- > Proactive capacity management
- > Regular service reviews
- > Available as part of project team or an outsourced service.

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- > Maintain availability of core systems through early failure identification
- > Flexible and scalable
- > Benefit from secure shared service to reduce costs
- > Quickly resolve incident with proactive monitoring
- > Continuous improvement through identification of persistently failing components
- > Evolve and mature cloud capability and visualise service in real-time
- > Leverage cloud-ready tools and processes
- > Minimise time from development to release
- > Reduced deployment failures
- > Ready for data science to unlock value in any data.

MANAGED SERVICE

NHS Remote Desktop

In partnership with the NHS, we have developed a secure virtual desktop solution to allow for remote-working clinicians to access a virtual desktop, via smart cards, and to launch the same clinical and ancillary applications (to access patient and clinical records) to be used as normal.

Service Features:

- > 24x7x365 access to private virtual PC
- > Persistent storage on 80GB system and 10GB user drives
- > NHS login via physical or virtual smart card
- > Common primary care clinical applications pre-loaded
- > Ability to configure for other applications
- > Technical support
- > Up to date with Windows and application software updates
- > Flexible group policy for user desktop permissions and internet access.

Service Benefits:

- > Ability to work anywhere and anytime with internet connectivity
- > Enables more flexible working outside of current physical estate
- > Access via Windows or Mac PC
- > Security: separate login to Workspace and clinical applications
- > Simplicity: access familiar Windows desktop and software tools
- > IT management: no physical infrastructure to manage and maintain
- > Deployment, management, and maintenance of endpoints becomes much easier
- > Can support individuals working for multiple organisations, easily scalable
- > Easily maintain security, protect from downloads, provide mass virus updates
- > Centralisation of end user management and maintenance.



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