



Application Development

G-Cloud 15 Framework
Lot 3 Cloud Support: Service Definition

January 2026

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Service overview

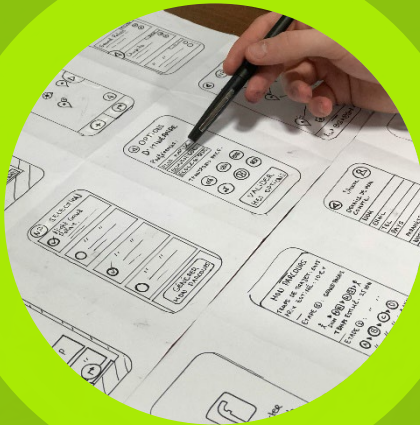
Organisations rely on digital services that are not only well designed and robust, but also supported, secured, and continuously improved throughout their lifecycle. AtkinsRéalis' Application Development service provides an **end-to-end, standards aligned capability** that spans user research, design, development, testing, transition into service, operation, and ongoing enhancement. This ensures buyers receive a complete, compliant, and maintainable service rather than a standalone development effort.

Grounded in our TickIT plus certified Technical Delivery Framework (ISO 9001 & ISO 27001) and aligned to the Government Digital Service (GDS) framework and Technology Code of Practice, our approach integrates engineering discipline, user-centred design, and DevSecOps practices to deliver accessible, scalable, and audit ready applications. We support both new and existing applications, whether greenfield builds, iterative enhancements, or modernisation of legacy systems, using proven methods including Agile, DevSecOps and linear delivery where appropriate.

Beyond delivery, we apply the tooling, governance and operational processes expected for **continuous lifecycle management**. This includes monitoring, incident/problem/change management aligned to Information Technology Infrastructure Library (ITIL), vulnerability scanning, accessibility and performance testing, continuous integration (CI)/continuous deployment (CD) pipelines, and structured knowledge transfer. These practices ensure your service remains reliable, secure, compliant and cost effective throughout its operation.

Whether you require support for a single phase or a fully managed service from Discovery through Live, AtkinsRéalis provides a mature, scalable and assured capability that reduces delivery risk and supports ongoing operational success.





Our service in action

AtkinsRéalis delivers Application Development services using a **structured, user-centred and standards aligned approach**. Whether you need targeted support for a single phase or an end-to-end delivery team, we work in line with the UK Government Digital Service (GDS) framework, the Technology Code of Practice, and our TickIT plus certified (ISO 9001 & ISO 27001) Technical Delivery Framework to ensure every solution is accessible, secure and aligned to recognised engineering best practice.



Our teams use a broad cloud, integration and automation toolset, with experience across **containers and serverless compute**, managed platforms, CI/CD pipelines, AI and machine-learning toolchains, and cloud-native integration services across **Azure, Amazon Web Services (AWS), and Google Cloud**. We develop using widely adopted languages such as **C#, Python, JavaScript, and TypeScript**, and employ proven engineering tools including **GitHub, GitLab, and Azure DevOps** to support traceability, security, repeatability, and rapid, low risk delivery. We adopt these tools where they bring reliability, scalability, and value, and select simpler technology where it reduces cost, implementation time, and maintenance effort.

Our work is organised into the four GDS phases, **Discovery, Alpha, Beta, and Live**, which can be delivered independently or combined as part of a wider programme. Each phase is executed using assured engineering, user research, security and testing processes to ensure coherence across the full lifecycle and to support a smooth transition into operation.

Discovery – understanding your users and the problem space

In Discovery, we build a clear, evidence-based understanding of the problem before design or development begins. Combining user-centred research with whole service analysis, we work with you collaboratively to understand your users and their needs, your constraints, and any opportunities, so we can ensure any future solution is effective, inclusive and grounded in how your people actually work.

This gives you a **well-defined problem**, agreed success measures and a shared view of what a high-quality service should deliver – creating strong foundations for Alpha and beyond.





Alpha – prototyping and building the right solution

In Alpha, we rapidly explore solution options and test the riskiest assumptions identified in Discovery, covering usability, technical feasibility, integration, security, and non-functional requirements.

Using low fidelity prototypes and targeted technical spikes, we validate what will work for your users and operational context, discarding approaches that won't scale or integrate effectively. Evidence from user testing and technical exploration shapes a clear direction for Beta.



Key activities in **Alpha** include:



Identifying and testing
the riskiest assumptions



Conducting user
research to validate
insight from Discovery



Creating low fidelity
prototypes to explore
solution options



Running technical spikes to
understand feasibility and
constraints



Testing concepts with
users, and refining based
on feedback



Producing clear,
evidence-based
recommendation for Beta



Beta – building a robust and scalable service

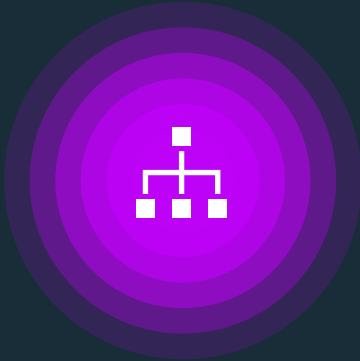
In Beta, we **move from prototypes to a fully functioning service**, delivering in short, iterative cycles using Agile methods such as Scrum or Kanban. We apply accessibility, security, and performance standards throughout the build, continuously integrating, testing and refining features so the service is stable, compliant, and ready for use in real operational environments.



User feedback, technical assurance, and evidence from Alpha guide each iteration, reducing delivery risk and ensuring the service is scalable and aligned to user needs. Iterative releases through Beta ensures early value realisation, and a solution that is user-centred.



Key activities in **Beta** include:



Developing and refining the working service based on Alpha outcomes



Testing features with users and iterating based on feedback



Integrating with required systems and operational processes



Applying accessibility, performance and security standards throughout



Preparing for live deployment with readiness checks and documentation



Supporting GDS Service Assessment preparation where required

Live – launch, operate and improve

In the Live phase, we support launch and early operations, ensuring your service is stable, secure, and ready for sustained use. We establish monitoring, feedback loops, and improvement activities from day one, enabling your teams to operate and evolve the service confidently.

Our approach applies the same engineering discipline used throughout the lifecycle, with clear documentation, operational readiness planning, and structured handover to internal or outsourced service teams. Where required, we provide ongoing support through service management practices aligned to ITIL, ensuring reliable, compliant, and continuously improving operations.



Key activities in **Live** include:



Managing launch
and early-life support



Establishing
monitoring, alerting
and feedback loops



Supporting teams with
operational readiness
and documentation



Providing continued
improvement activities
based on real-world
performance.



Ensuring service
stability through ITIL-
aligned incident,
problem and change
management

You benefit from a smooth transition into business as usual, and a supported service designed to evolve in line with your changing needs.

Why choose us?

Proven capability backed by assurance and scale

AtkinsRéalis delivers assured digital and AI services across some of the UK's most regulated, complex and safety-critical domains. Our work has been recognised through national awards, including the **UK IT Industry Award 2025** for Digital Safety Cases, and we have **delivered national-scale platforms** such as the National Underground Asset Register (NUAR), which integrates data from more than six hundred organisations into a single cloud-native service.

Our engineering approach is **independently assured**. We are accredited to ISO 27001 for information security, Cyber Essentials Plus, and TickIT plus for software quality and lifecycle governance, and operate to other recognised standards including ISO 42001 for responsible AI. In addition to applying the GDS framework and Technology Code of Practice, we use recognised design and engineering principles to ensure every solution is compliant, accessible and aligned to government best practice.



You also benefit from the scale and depth of our delivery capability. We have more than one thousand digital practitioners, spanning software engineering, cloud architecture, data and AI, cyber security, user research and service design. This includes both UK-based teams and offshore delivery centres, giving you **flexible, cost-effective options without compromising quality or assurance.**

Our experience covers safety-critical and mission-critical systems in defence, aviation, transportation, energy and national infrastructure. This gives you confidence that your services will be designed with the rigour, traceability and resilience needed for real operational environments.

Whether you need a focused specialist team or a full multidisciplinary programme, you get **a partner with a proven track record** of reducing delivery risk, strengthening compliance and delivering measurable operational value at scale.

Below are a few examples that demonstrate the impact of our application development and AI services in real world operational environments.



Case studies

Find out how our impact is demonstrated
through real-world delivery

CASE STUDY

NUAR

Transforming underground asset management

We led the development of the National Underground Asset Register (NUAR) using a cloud-based architecture aligned to the Government Digital Service framework. The solution integrates data from more than 700 organisations into a single, accessible service. Retrieval times dropped from days to seconds, and the platform now underpins safer excavation, better planning and more efficient operations.

£91M

Predicted in cut costs



- Reduced data access time from 6.1 days to 60 seconds
- Predicted to save the UK economy £490 million annually, a 36x return on investment
- Streamlined processes predicted to cut costs by £91 million per year



CASE STUDY

ARROW

AI optimisation for wastewater network planning

AtkinsRealis Robust Optimisation Workplace (ARROW) uses genetic algorithms to accelerate the design of wastewater network solutions. It enables rapid scenario testing, improves confidence in investment decisions and supports resilience planning. The platform is designed for cloud or hybrid deployment and has been used to optimise capital and operational expenditure across diverse water environments.

40-70%

**Reduction in
manual effort**



- 40-70% decrease in manual effort, reducing resourcing constraints and costs
- 5-15% opportunity unlocked to reduce capital costs
- Options assessed in context of whole design ensures confidence in the selected option



CASE STUDY

Heathrow

PASS2

We delivered PASS2, Heathrow's biometric processing solution that manages domestic and international passengers in one lounge. The system integrates facial recognition, barcode scanning and automated gates; improving boarding efficiency, strengthening compliance and supporting real-time passenger management across one of the world's busiest airports.

200+

**Terminals managed
by PASS2**



- Faster, more efficient boarding
- Stronger identity security and compliance
- Real-time passenger management at scale



About AtkinsRéalis

AtkinsRéalis is a global leader in engineering, design, and digital services, renowned for delivering end-to-end solutions across government, infrastructure, energy, transportation, and technology sectors.

Founded in 1911, our company operates in over 160 countries with a workforce of more than 36,000 professionals, combining deep technical expertise with cutting-edge digital innovation. Notable for internationally recognised engineering projects such as the Burj Al Arab, the Ho Chi Minh City Skyscraper and the Elizabeth Line, alongside digital projects for MoD, HMRC, National Highways and Heathrow, we have earned a reputation for consistently delivering high-quality work.

Our digital capabilities span business strategy, architecture, design, implementation, project management, and lifecycle support, leveraging advanced technologies such as AI, digital twins, and data-driven systems to transform government, infrastructure and energy systems worldwide. With our strong focus on human-centric design, resilience, and sustainability, AtkinsRéalis is a trusted partner for complex, mission-critical projects for clients across government, defence, infrastructure and beyond.



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