

Kubernetes Platform Design, Build and Migration



G-Cloud 15 Framework
Service Definition

Service Description

Cirrus designs, builds and modernises Kubernetes and container platforms across AWS, Azure and GCP. We deliver secure, automated, scalable clusters, GitOps pipelines, observability, supply chain assurance and workload migrations, enabling standardised, portable cloud native environments that reduce operational complexity and support resilient, maintainable digital services.

Service Features

- Kubernetes platform architecture for secure, scalable workloads.
- Cluster provisioning with Terraform, Helm and GitOps.
- Containerisation and microservices refactoring support.
- Networking, ingress and service mesh integration.
- Supply-chain security and vulnerability scanning.
- Policy enforcement and admission controls.
- Observability with logging, metrics and tracing.
- Performance testing and autoscaling configuration.
- Workload migration and platform hardening.
- UK-based, security-cleared Kubernetes specialists.

Service Benefits

- Improved scalability with orchestrated workloads.
- Reduced cost through efficient utilisation.
- Faster deployment with automation.
- Stronger security using hardened controls.
- Better reliability via cloud native patterns.
- Easier operations through observability.
- Increased portability across providers.
- Simplified modernisation with standard tooling.



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Planning

We work in a flexible, transparent, and agile way aligned with the Government Digital Service (GDS). In close collaboration with the customer, business requirements, high level deliverables and outcomes will be identified. We will run discovery sprints in which interviews with key stakeholders and service users will be conducted. Technical design reviews will be performed, story boarding, transition plan, testing and implementation strategies will be formed. These will include identifying acceptance criteria, continuous integration, release, and deployment methodology. These will be reviewed and as part of the continuous improvement strategy throughout the course of the project.

Following agile principles, the service delivery will occur over a series of short iterations (sprints). The plan for delivery will be reviewed in collaboration with the customer and updated at each iteration. Full visibility of progress will be provided using agile planning tools. Every iteration will have a Show and tell session to obtain feedback as well as retrospective session to identify improvements and successes. We will review service design to ensure that security concerns, cost management, performance implications, operations management and service resiliency are addressed.

Setup and migration

We will assess the current environments and services. Review existing infrastructure, applications, and data to understand the organisations needs and challenges ensuring that we aligned to a customer's business requirements and cloud strategy. Robust, cost-effective roadmaps for migration will be produced which will consider external dependencies and take steps to mitigate risk.

Where possible, to minimise downtime during workload and data migration, appropriate tooling will be selected, and automations established to ensure repeatable, reliable, and testable processes with reduced operational overhead.

Quality assurance and performance testing

Quality Assurance (QA) plays a central role in our work and permeates all aspects of successful project delivery. We begin with shift-left testing, incorporating QA practices from the start. Our team bring a wealth of experience in unit testing, test-driven development, continuous integration (CI) with pre-commit hooks and linting, and continuous deployment (CD) with automated testing across multiple branches. Additionally, we tailor integration testing strategies to each project's unique requirements. Our direct QA experience allows us to create



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effective test strategies and capture both functional and non-functional requirements. From a delivery perspective, QA ensures we partner with you the customer for success, emphasising feedback, transparency, and continuous improvement.

Training

Throughout the delivery life cycle, we will perform knowledge transfer, continual training and upskilling sessions to ensure your organisation has the ability to use the cloud-based software and services.

Where possible and appropriate, we will operate training techniques such as paired programming, pairing your resources with our experts to work through specific cloud features, management, and incidents to provide hands on experience delivering changes.

Furthermore, technical operational support documentation will be completed throughout delivery, quality assured by the customer.

About Us

Cirrus Software Solutions provides technical software solutions for the UK public sector in Government, defence and critical national infrastructure. We enable organisations to work efficiently by providing expertise in developing cloud-based software products.

Cirrus puts customers and employees first and builds stable, trusted, and successful partnerships through openness and collaboration.

We provide a range of cloud software support skills including DevOps, Business Analysis, System Engineering, Software Development and Cloud Security Architecture. We have over 20 years of government-based secure software development experience including web development, microservice architecture, software delivery management and cloud consultative services.

The cloud is becoming more prevalent within industry and public sector projects worldwide, and the UK is no exception. We are cloud agnostic and all our engineering teams are AWS and/or Azure certified as a minimum.

We use Agile practices throughout and customer collaboration is at the heart of our work.



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Our Values

- We are **problem-solvers** with the best tools, facing challenges that lead to rewarding and impactful outcomes.
- We conduct business with **integrity** by building relationships with mutual respect, through honesty, transparency, and active listening.
- We foster an atmosphere of mutual **respect and collaboration** to promote happiness and satisfaction.

For more information on this G-Cloud 15 service please contact us on:

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