

**BLACKSTONE&**

G-Cloud 15 | Lot 3 – Cloud Support Services

Microservices Architecture & Platform Engineering

Service Description

Design and build scalable, resilient microservices architectures and cloud-native platforms. We deliver containerised applications, Kubernetes orchestration, CI/CD pipelines, and Infrastructure as Code using DevOps and Site Reliability Engineering practices. Supporting greenfield platform builds, monolith decomposition, and platform modernisation—enabling organisations to deploy faster, scale efficiently, and operate reliably in production environments.

Service Overview

The Microservices Architecture & Platform Engineering service helps organisations adopt modern software architectures and platform engineering practices that enable faster, safer, and more efficient delivery.

Traditional monolithic architectures often struggle to support the pace and scale of modern digital service delivery. Changes require careful coordination, failures cascade across systems, and scaling requires adding capacity everywhere rather than where it's needed. Microservices architecture addresses these limitations by decomposing applications into independently deployable services that can evolve, scale, and fail independently.

However, microservices introduce their own complexity. Without appropriate platform infrastructure, organisational structure, and engineering practices, teams can find themselves overwhelmed by operational burden rather than enabled by architectural flexibility. Our service helps organisations navigate this complexity:

Architecture Design: We help organisations design microservices architectures that balance the benefits of decomposition with the costs of distributed systems. This includes identifying service boundaries, defining communication patterns, and establishing data management approaches.

Platform Engineering: We build internal developer platforms that abstract infrastructure complexity and enable development teams to focus on business value. This includes CI/CD pipelines, infrastructure automation, observability, and developer experience optimisation.

Kubernetes and Containers: We bring deep expertise in container orchestration, helping organisations adopt Kubernetes effectively whether using managed services (EKS, AKS, GKE) or self-managed clusters.

Site Reliability Engineering: We embed SRE practices that ensure production systems are reliable, performant, and cost-effective. This includes SLO definition, error budgets, incident management, and continuous improvement.

Service Features

- Microservices architecture design, domain-driven design, API-first development
- Kubernetes orchestration: EKS, AKS, GKE, and OpenShift implementation
- Docker containerisation, Helm charts, and container registry management
- CI/CD pipelines: GitHub Actions, GitLab CI, Azure DevOps, Jenkins
- Infrastructure as Code: Terraform, Pulumi, CloudFormation, and Ansible
- Service mesh implementation: Istio, Linkerd, and Consul Connect
- Observability stack: Prometheus, Grafana, Datadog, ELK, OpenTelemetry
- GitOps workflows using ArgoCD and Flux for continuous deployment
- Site Reliability Engineering, SLOs, SLIs, and error budgets
- Platform engineering and internal developer platform design

Service Benefits

- Accelerated deployment frequency from monthly releases to daily
- Improved resilience through fault isolation and graceful degradation
- Elastic scalability responding automatically to demand fluctuations
- Solutions designed to work within and address departmental constraints
- Enhanced developer productivity through self-service platform capabilities
- Lower operational toil through automation and infrastructure standardisation
- Faster incident detection and recovery through comprehensive observability
- Future-proofed architecture enabling technology evolution without rewrites
- Cost optimisation through efficient resource utilisation and autoscaling
- Sustainable internal capability through embedded DevOps practices

Available through G-Cloud 15 Framework | Lot 3 – Cloud Support Services