

Google Kubernetes (GKE) Platform Deployment

Implements a production-grade Google Kubernetes Engine platform utilizing proven patterns from extensive GCP enterprise deployments. This service delivers a fully configured GKE environment with enterprise-scale landing zones, security controls, and operational capabilities aligned with Google Cloud best practices and architecture framework.

Prerequisites

- Completed Kubernetes Readiness Assessment
- GCP organization and project structure defined
- Network and security policies approved
- IAM model and requirements documented
- Platform team availability confirmed

Foundation & Infrastructure (4 weeks)

- GKE cluster architecture implementation (Standard/Autopilot)
- Google Cloud networking and security configuration
- Workload Identity and IAM setup
- Cloud Operations foundation deployment
- Container Registry/Artifact Registry setup

Platform Services & Integration (4 weeks)

- Anthos Service Mesh implementation
- CI/CD pipeline integration with Cloud Build
- Binary Authorization and Container Security
- Google Cloud monitoring and logging integration
- Cloud KMS and Secret Manager configuration

Validation & Optimization (4 weeks)

- Security controls and compliance validation
- Disaster recovery and backup validation
- Performance and scalability testing
- Production readiness verification
- Cost optimization implementation

Technical Outcomes

- Production-grade high availability configuration achieved
- Multi-regional resilience validated
- Security controls aligned with Google Cloud security standards
- Platform automation established with Cloud Operations
- Cost optimization framework operational

Deliverables

- As-built GKE architecture documentation
- Infrastructure-as-Code repositories (Terraform/Deployment Manager)
- Security and compliance validation reports
- GKE operational runbooks and playbooks
- Platform validation matrix

About Shadow-Soft

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