



# **Google Cloud Security Engineer: Exam Prep & Practice Training**

3 – 7 October 2027  
Johannesburg



## Google Cloud Security Engineer: Exam Prep & Practice Training

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### Overview

The Google Cloud Security Engineer exam Professional Cloud Security Engineer tests whether a candidate can actually operate the Google Cloud console, gcloud CLI and Organization Policy Service under pressure, not just recite principles. This 5-day exam prep programme walks through each section of the official exam guide in the order Google publishes it: configuring access within a project and organization, securing communications and boundary protection, ensuring data protection, managing operations, and supporting regulatory requirements. Every day ends with timed scenario questions written in the exam's case-study style, so participants learn to spot the one Google-recommended answer among several technically possible ones. This course is delivered by Agile Leaders Training Center.

### Who Should Attend

- Engineers booked to sit the Professional Cloud Security Engineer exam within the next few months
- Google Workspace and Cloud Identity administrators who own super-admin and group design
- Platform teams that run landing zones built with the Cloud Foundation Toolkit or Terraform
- SOC analysts moving onto Security Command Center Premium and Chronicle
- Holders of the Associate Cloud Engineer badge aiming for their first professional-level credential

### Departments and Industries

Useful wherever Google Cloud projects hold regulated or customer data.

- Platform engineering groups operating GKE and Cloud Run estates
- Banking teams bound by key-custody and audit-trail rules
- Health data platforms running BigQuery analytics on patient records
- Government bodies adopting Assured Workloads folders
- Retail and media companies running high-traffic sites behind Cloud Load Balancing

### Learning Objectives

By the end of this course, participants will be able to:



- Choose between basic, predefined, custom and deny policies for a given gcloud scenario.
- Draw a VPC Service Controls perimeter, add access levels and ingress/egress rules, and test it in dry-run mode.
- Pick the correct key option Google default, CMEK, CSEK, Cloud HSM or Cloud EKM for a stated data requirement.
- Build a Sensitive Data Protection inspection job and a de-identification template for a BigQuery table.
- Read Security Command Center findings and route them to Pub/Sub for automated remediation.
- Answer exam questions on Organization Policy constraints, Access Transparency and Key Access Justifications.

## Course Agenda

### Day 1: Exam Section 1 - Configuring Access

- Exam format, question styles and how the case studies are scored
- Cloud Identity, Google Cloud Directory Sync and SAML federation with an external IdP
- Resource hierarchy: organization node, folders, projects and policy inheritance
- Service accounts versus user accounts, impersonation and disabling key creation by constraint
- Workload Identity Federation for GitHub Actions and AWS workloads, with a timed 15-question access-control quiz

### Day 2: Exam Section 2 - Communications and Boundary Protection

- Hierarchical firewall policies, network tags versus secure tags
- Cloud Armor rules, preconfigured WAF signatures and adaptive protection
- Identity-Aware Proxy for SSH, RDP and internal web apps
- Private Service Connect, Private Google Access and Cloud NAT choices
- VPC Service Controls perimeters, bridges and dry-run logs, with a timed network boundary case study

### Day 3: Exam Section 3 - Data Protection

- Sensitive Data Protection discovery, inspection and de-identification
- Cloud KMS key rings, rotation periods, key versions and destroy scheduling
- Cloud HSM, Cloud EKM and Key Access Justifications compared
- Secret Manager versions, replication and IAM on individual secrets
- Uniform bucket-level access, signed URLs and BigQuery column-level security, with a timed quiz on choosing the right encryption model

### Day 4: Exam Section 4 - Managing Operations

- Admin Activity, Data Access and Policy Denied audit logs; aggregated log sinks
- Security Command Center tiers, detectors and mute rules
- Binary Authorization attestations with Artifact Registry scanning
- GKE hardening: Shielded Nodes, Workload Identity and Policy Controller
- Incident playbook for a leaked service account key, with a timed operations and incident quiz



## Day 5: Exam Section 5 - Regulatory Requirements and Full Mock

- Assured Workloads, resource location restrictions and Access Approval
- Organization Policy constraints most often asked in the exam
- Full-length 50-question mock exam under timed conditions
- Answer walkthrough explaining why distractor options are wrong
- Personal weak-area map and booking checklist for the real exam

## Practical Exercises

The following hands-on activities are suggested to reinforce each exam section in a live Google Cloud project.

- Suggested activity: replace a downloaded service account key with Workload Identity Federation for a CI pipeline.
- Suggested activity: put BigQuery and Cloud Storage inside a VPC Service Controls perimeter and read the dry-run violations.
- Suggested activity: encrypt a bucket with a CMEK, rotate the key and observe which objects use which version.
- Suggested activity: block unsigned images on a GKE cluster with Binary Authorization.

## FAQs

### What should candidates know before the first day?

Hands-on time in the Google Cloud console and gcloud, plus working knowledge of TCP/IP and public-key cryptography. The Associate Cloud Engineer level is a good baseline.

### How many hours of study does the course cover?

Sessions run four to five hours a day, giving 20 to 25 hours in total, including four timed quizzes and one full mock exam.

### When should I choose CMEK instead of Google default encryption?

Google default encryption needs no configuration. CMEK is chosen when you must control rotation, disable a key to make data unreadable, or show auditors who can use the key in Cloud KMS.

## Conclusion

Candidates leave with every exam section rehearsed against Google's own service names and recommended patterns, a scored mock exam, and a clear list of topics to revise before booking the Professional Cloud Security Engineer exam.