



Kong Gateway Operations and API Management at Scale Training Course

8 – 12 February 2027
Addis Ababa

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Overview

Kong Gateway Operations and API Management at Scale Training Course is a one-week advanced course for API platform engineers, cloud engineers, DevOps teams, architects, security engineers, and technical leads who leave with a Scalable Kong API Platform Implementation Plan. Participants apply Kong Gateway operations, API traffic management, declarative configuration, gateway observability, and scalable API platform practices to secure routes, automate change, diagnose failures, and govern shared environments. Agile Leaders Training Center develops Kong gateway operations capability.

Who Should Attend

- Platform teams responsible for shared gateway services and deployment controls
- Cloud operations functions responsible for availability, capacity, and release automation
- Architecture groups responsible for service routing and integration standards
- Security teams responsible for gateway identity, authorization, and traffic protection
- Technical leads responsible for API platform governance and operational decisions

The course assumes participants operate APIs, cloud platforms, or deployment pipelines and leaves out introductory API design, application coding, and certification exam preparation.

Departments and Industries

The course supports departments and industries that depend on controlled, observable, and resilient API traffic.

- Platform engineering and cloud operations
- Enterprise architecture and systems integration
- Cybersecurity and identity operations
- Financial services and telecommunications
- Healthcare, logistics, and digital-service operations

Learning Objectives

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



- Build Kong services, routes, upstreams, and load-balancing arrangements
- Apply authentication, authorization, transformation, and rate-limiting plugins
- Use declarative configuration and deck for controlled promotion
- Analyze gateway logs, metrics, traces, and health signals
- Diagnose routing, capacity, availability, and plugin failures
- Build a Scalable Kong API Platform Implementation Plan

Course Agenda

Day 1: Kong Gateway Architecture and Routing

- Kong Gateway Deployment Topology Map
- Gateway Service Definition
- Route Matching and Priority Matrix
- Upstream Target and Load-Balancing Plan
- Control Plane and Data Plane Responsibility Chart

Day 2: Plugins, Identity, and Traffic Policies

- Plugin Scope and Precedence Map
- Authentication and Consumer Configuration
- Authorization Policy Assignment
- Rate Limiting Advanced Policy
- Request and Response Transformation Rules

Day 3: Declarative Configuration and Automation

- Declarative Configuration Structure
- deck State Validation Workflow
- Configuration Promotion Pipeline
- Workspace and Team Ownership Model
- Change Audit and Rollback Procedure

Day 4: Observability, Resilience, and Troubleshooting

- Gateway Logging and Metrics Map
- Distributed Trace Correlation Plan
- Health Check and Failure Routing Policy
- High-Availability Capacity Model
- Gateway Upgrade and Troubleshooting Decision Tree



Day 5: Scalable Kong Platform Practice

- Exercise: Build Services and Route Policies
- Exercise: Apply Security and Traffic Plugins
- Exercise: Automate Declarative Configuration
- Exercise: Diagnose Gateway Performance and Failure
- Capstone: Scalable Kong API Platform Implementation Plan

Practical Exercises

The course uses suggested activities drawn from financial services, telecommunications, healthcare, logistics, and digital services.

- Suggested activity: build service, route, upstream, and plugin configurations for a shared gateway.
- Suggested activity: validate declarative state and promote a controlled configuration change with deck.
- Suggested activity: correlate logs, metrics, traces, and health checks to diagnose a gateway failure.
- Suggested activity: compare capacity, security, and governance decisions for a multi-team platform.

FAQs

Who suits Kong Gateway operations and API management training, and what does it assume?

API platform, cloud, DevOps, architecture, security, and technical leadership functions suit the training; it assumes participants already operate APIs, cloud services, or delivery pipelines.

How does Kong Gateway operations training differ from generic API design training?

Kong Gateway operations training concentrates on runtime routing, plugins, traffic policy, automation, observability, resilience, and shared-platform governance rather than API specification design or application coding.

How should Kong services and routes be organized?

Kong services and routes should reflect upstream ownership, path and host matching, route priority, plugin scope, environment boundaries, and accountable operational teams.

How can teams manage Kong configuration changes at scale?

Teams can manage Kong configuration changes through declarative state, validation, version control, controlled promotion, workspaces, audit records, rollback procedures, and assigned ownership.

What belongs in a Scalable Kong API Platform Implementation Plan?

A Scalable Kong API Platform Implementation Plan includes topology, services, routes, upstreams, plugins, identity controls, traffic policies, automation, observability, capacity, upgrades, governance, failure procedures, owners, and staged actions.

Conclusion

Participants take back a Scalable Kong API Platform Implementation Plan supported by topology maps, route matrices, plugin policies, configuration workflows, observability artifacts, and troubleshooting procedures. It changes fragmented gateway settings into controlled platform operations with accountable owners. The plan provides a repeatable basis for scaling, securing, monitoring, upgrading, and improving Kong environments.