

LAYER 8 — Governance & Resilience Infrastructure

Enterprise Governance Pack — Execution Control After Billing

1. Executive Summary

Layer 8 is an Execution Governance Gateway that separates billing confirmation from operational execution. Payment validation alone does not grant system access. All execution decisions are made deterministically and fail-closed.

2. Architectural Model

- Stripe Billing Layer (Payment confirmation)
- Webhook Verification (HMAC signature validation)
- Subscription State Machine (active / trialing / revoked / restricted)
- Entitlement Mapping (tier-based feature control)
- Execution Gateway Endpoint (/access)
- Fail-Closed Enforcement (no silent activation)
- Global Kill-Switch Control
- Audit-Ready State Reasoning

3. Core Governance Principles

- Fail-Closed by Default
- Deterministic State Transitions
- Explicit Denial Reasons
- Runtime Feature Enforcement
- Immediate Revocation on Refund/Chargeback
- Operational Kill-Switch
- Audit-Friendly Access Responses

4. Enterprise Procurement Positioning

- Aligned with ISO 27001 control philosophy (access & enforcement separation)
- SOC2 audit-readiness via deterministic behavior
- AI Act compatible execution traceability
- Separation of billing and operational authorization
- Incident documentation and export capability

5. Incident & Resilience Model

Layer 8 includes a deterministic incident control framework. The Global Kill-Switch allows immediate execution pause across the system without interfering with billing records. All access denials provide explicit reason codes.

6. Integration Flow (High-Level)

- 1. Configure Stripe Prices and Webhook endpoint
- 2. Layer 8 validates webhook signatures
- 3. Subscription state machine updates entitlements
- 4. Your system calls /access before execution
- 5. Execution allowed only if access:true

Disclaimer

Layer 8 provides infrastructure-level governance enforcement. It does not replace legal advice. Implementation must be adapted to each organization's compliance environment.