

LAYER 8 — Trial & Revocation Enforcement Guide

Deterministic Subscription Enforcement & Fail-Closed Access Control

1. Trial Enforcement Model

Layer 8 enforces trial periods independently from Stripe UI. Even if billing exists, execution is controlled by runtime validation.

- Subscription status 'trialing' is allowed temporarily.
- `trial_end` timestamp is stored in KV state.
- Each `/access` request checks current time against `trial_end`.
- If `current_time > trial_end` → access denied (`trial_expired`).
- Fail-closed logic ensures no silent continuation.

2. Revocation Logic

Revocation is triggered by subscription cancellation, refund, chargeback, or administrative override.

- `customer.subscription.deleted` → immediate revoke.
- Refund or chargeback event → status = revoked.
- Manual admin override → status = revoked.
- Revoked status returns `access:false` for all features.
- Entitlements list cleared to prevent execution.

3. Failure Reason Codes

- `trial_expired` → Trial period ended.
- `revoked` → Subscription revoked.
- `feature_not_allowed` → Tier restriction.
- `inactive_status` → Subscription inactive.
- `not_found` → No valid subscription state.

- `system_paused` → Global Kill-Switch active.

4. Security Guarantees

- Execution never depends solely on Stripe UI state.
- Runtime validation required before automation.
- Fail-closed enforcement ensures safe degradation.
- Immediate execution stop upon revocation.
- All denial states are explainable and auditable.

Disclaimer

This document describes infrastructure-level enforcement logic. Implementation must align with organizational compliance requirements.