Satelink DePIN — Day■1 Revenue Go■Live Execution Playbook

Audience: Full■stack protocol engineers, infra engineers, AI■agent orchestration teams (Antigravity).

1. Objective (Locked)

This document defines the exact technical execution required to unblock Satelink and reach Day■1 revenue. It strictly follows the Master Scope PDF and assumes a revenue■first, non■custodial DePIN architecture. The goal is to enable real paid operations (minimum 10 ops per node), epoch finalization, and claim■based payouts without illusion economics.

2. Current Audit Snapshot

1. Node heartbeat exists but payload + signature verification are inconsistent.
2. Paid ops engine exists but lacks rate■limits, replay protection, and pricing enforcement.
3. Reward ledger SQL exists but is not auto■migrated or mounted at runtime.
4. Claim → Withdraw system is not fully implemented (P0 blocker).
5. Admin/security gates missing on revenue■critical endpoints.

3. Day■1 Revenue Definition (Non■Negotiable)

Satelink is considered LIVE only when at least one paid operation generates USDT, nodes execute a minimum of 10 paid ops per epoch, rewards are finalized per epoch, and users can claim earnings under a strict claim → withdraw discipline.

4. P0 Blocker Fix Plan (Execution Order)

1. Unify server entrypoint and remove duplicate/broken server files.
2. Fix heartbeat ingestion and enforce cryptographic verification.
3. Auto■run SQL migrations at startup (ledger + ops tables).
4. Mount Layer■5 reward/ledger router.
5. Implement claim → withdraw system with expiry.
6. Add admin/role protection to all revenue■sensitive endpoints.

5. Minimum Paid Ops Set (10 Ops / Node)

1. api_relay_execution — paid per request
2. automation_job_execute — cron/event automation
3. network_health_oracle_update — SLA proof
4. routing_decision_compute — routing intelligence
5. verification_op — proof validation
6. provisioning_op — node/service provisioning
7. monitoring_op — uptime/SLA monitoring
8. claim_validation_op — protocol fee
9. withdraw_execution_op — protocol fee
10. epoch_score_compute — accounting op

6. AI■Agentic Workflow (Antigravity Compatible)

Execution is designed for AI agents operating in parallel. Each agent owns a bounded module and produces deterministic outputs that feed the next agent.

1. Agent■1 (Infra): Node heartbeat, nonce tracking, replay protection.
2. Agent■2 (Ops): Paid ops metering, pricing table, rate limits.
3. Agent■3 (Ledger): Epoch aggregation, reward ledger append.
4. Agent■4 (Economics): Revenue split (50/30/20), infra reserve logic.
5. Agent■5 (Settlement): Claim creation, expiry enforcement, withdraw guard.
6. Agent■6 (Security): Admin roles, circuit breakers, abuse detection.

7. Go■Live Acceptance Tests

1. Node executes ≥10 paid ops in an epoch.
2. Epoch finalization produces immutable ledger entries.
3. Claim creates entitlement without moving funds.
4. Withdraw executes only if treasury balance is sufficient.
5. Expired claims are forfeited to treasury.

8. Final Statement

This execution plan is audit■ready and revenue■safe. If implemented as written, Satelink can go live with Day■1 revenue without regulatory, treasury, or economic risk.