Investor One Pager

What we do

Deterministic Settlement for High Volume Digital Payouts: a controller above your existing rails that only releases funds when results are provably correct and required approvals are present.

The Core Problem

Imagine you run a platform like YouTube, Uber, or Etsy that pays millions of creators, drivers, or sellers every week. Currently, these systems have major issues:

- **Rounding errors accumulate**: When you're dealing with millions of tiny payments (like fractions of a cent per view), small rounding errors add up to thousands of dollars
- **Non-deterministic results**: Run the same payment calculation twice, get slightly different answers due to system quirks
- **Hard to audit**: When someone disputes their payment, it's difficult to prove exactly how you calculated it
- **Risky changes**: Updating payment rules might accidentally overpay or underpay people

Why This Matters

- The problem isn't just technical - it's about **trust and reliability** in financial systems. With this innovation, every payment becomes mathematically provable, disputes become rare, and compliance becomes automatic.
- This could transform any business that makes large-scale digital payments, from creator platforms to gig economy apps to B2B marketplaces

The Solution: "Deterministic Settlement"

This system works like a **bulletproof accounting machine** with these key features:

1. Perfect Reproducibility

- Every payment calculation can be replayed exactly, bit-for-bit
- Like a mathematical proof that always gives the same answer
- Uses a "transcript" (detailed record) that anyone can verify

2. Penny-Perfect Math

- Uses special integer arithmetic to avoid rounding errors
- Has a "carry ledger" that tracks sub-penny amounts and distributes them fairly
- Example: If 3 people should get $1.005 each, the system gives two people $1.01 and one person $1.00, then records exactly why

3. Safety Gates Before Payment

- Money only moves if multiple checks pass:
    - **Finance team says "reserves OK"**
    - **Compliance team says "tax/legal requirements met"**
    - **Payment provider confirms receipt**
- If any check fails, payments are blocked with a clear reason

4. Safe Changes

- New payment rules are tested on small groups first ("canary deployment")
- System verifies results are identical before rolling out to everyone
- Can instantly roll back if something goes wrong

Real-World Impact

For a platform paying 250,000 creators weekly:

- **Eliminates $25,000/day in reconciliation errors**
- **Reduces payment disputes by 40%**
- **Cuts payment processing time from 6 hours to 25 minutes**
- **Makes audits trivial**: Just replay the transcript