

# Converge

THE TRUSTWORTHY AGENT RUNTIME

## The Problem: Agent Drift

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AI agents are transforming business automation. But they have a fatal flaw:

- **Non-deterministic** — Same input, different outputs
- **No guarantees** — Workflows "vibe" but don't enforce rules
- **Unauditable** — "Why did it do that?" has no answer
- **Fragile** — Silent failures, partial updates, stuck workflows

Enterprises can't trust agents with critical business processes.

# The Market Opportunity

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Segment	Pain Point	Spend
Business Automation	Zapier/Make don't guarantee correctness	\$13B by 2030
AI Agent Platforms	No trust layer for LLM orchestration	\$28B by 2028
SMB Operations	12+ SaaS tools, zero coherence	\$200B annually

The gap: **No platform guarantees AI agents behave correctly.**

# Today: The SaaS Spaghetti

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Every SMB manages a fragmented stack:

Category	Tools	Problem
CRM	HubSpot, Salesforce, Pipedrive	Data silos
Finance	Xero, QuickBooks, Stripe, Brex	Manual reconciliation
HR	Gusto, Rippling, BambooHR	Policy gaps
Delivery	Asana, Monday, Notion, Jira	Status chaos
Marketing	Mailchimp, Intercom, Hootsuite	Channel fragmentation
Comms	Slack, Teams, Gmail, Calendly	Context lost
Automation	Zapier, Make, n8n	Brittle glue

15-20 tools. Zero guarantees. Constant firefighting.

## Tomorrow: Declare Truths, Let Converge Work

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Instead of wiring tools together, **declare what must be true**:

```
Truth: Get paid for delivered work
  Given work is marked complete
  Then invoice is issued within 24 hours
  And payment is tracked
  And overdue triggers escalation

Truth: No lead left behind
  Given a qualified lead exists
  Then owner is assigned within 4 hours
  And first contact happens within 24 hours
```

Converge handles the orchestration. You own the business logic.

# The Solution

MATHEMATICAL GUARANTEES FOR AGENT BEHAVIOR

## Converge: The Trustworthy Runtime

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A formally-grounded execution engine where:

- **Agents propose** — LLMs suggest, never decide
- **Engine validates** — Invariants enforce business rules
- **Context converges** — Every run reaches a stable, explainable state

| "Stop agent drift. Converge to an explainable result."

## The 9 Axioms

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Mathematical foundations that make Converge trustworthy:

#	Axiom	Formula
1	Monotonicity	$\text{ctx} \subseteq \text{step}(\text{ctx})$
2	Determinism	$\text{step}(\text{ctx}) = \text{step}(\text{ctx})$
3	Idempotency	$\text{agent}(\text{ctx}) = \text{agent}(\text{agent}(\text{ctx}))$
4	Commutativity	$a(b(\text{ctx})) = b(a(\text{ctx}))$
5	Termination	$\exists n: \text{step}^n(\text{ctx}) = \text{step}^{n+1}(\text{ctx})$

## The 9 Axioms (continued)

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#	Axiom	Formula
6	Consistency	$\neg \exists (f, \neg f) \in \text{ctx}$
7	Starvation Freedom	$\text{enabled}(a) \Rightarrow \Diamond \text{runs}(a)$
8	Confluence	$\text{ctx}_1 \cup \text{ctx}_2 \rightarrow \text{ctx}^*$
9	Observability	$\forall \text{effect: } \text{logged}(\text{effect})$

These aren't guidelines — they're **guarantees enforced by the type system**.

# From Math to Business Value

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Axiom	Business Guarantee
Monotonicity	<b>Audit trail integrity</b> — nothing lost
Determinism	<b>Reproducible decisions</b> — debug anything
Idempotency	<b>Safe retries</b> — no double-charges
Termination	<b>Guaranteed completion</b> — no stuck workflows
Consistency	<b>No contradictions</b> — ledgers balance
Observability	<b>Full explainability</b> — compliance ready

## How It Works

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```
Root Intent
↓
Fan-out (agents propose)
↓
Validate + enforce invariants
↓
Serial commit (append-only Context)
↓
Repeat until fixed point
↓
Explainable result + audit trail
```

Every step logged. Every decision traceable.

# The Product Stack

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Layer	What It Is	Revenue Model
Platform	Core runtime engine	Open source
Packs	Reusable business truth modules	Subscription
Blueprints	Curated compositions	Marketplace
Apps	Deployed tenant experiences	Enterprise

## Packs: Install Business Truth

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Pre-built modules for common operations:

- **Money** — Invoice, collect, reconcile, close books
- **Customers** — Capture, qualify, engage, close, handoff
- **Delivery** — Scope, track, complete, learn
- **People** — Hire, onboard, pay, offboard
- **Trust** — Access, audit, compliance

Each Pack inherits all 9 axioms automatically.

# Competitive Landscape

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Approach	Problem	Converge Difference
Zapier/Make	No guarantees, brittle chains	Axiomatic correctness
LangChain/AutoGPT	Agent drift, no convergence	Fixed-point execution
Custom code	Expensive, hard to audit	Declarative Truths
Enterprise BPM	Heavyweight, no AI-native	LLM-first, lightweight

We're the **trust layer** the AI stack is missing.

## Go-To-Market: Builder-First

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### **Phase 1: Builders as Channel** (Now)

Win startups and agencies who build for clients.

They become our distribution to end customers.

### **Phase 2: Partner Ecosystem** (6-12 months)

Builders deploy Converge to their customers.

We support with Packs, training, and co-marketing.

### **Phase 3: Platform Network** (12-24 months)

Partner-built Packs in marketplace.

Converge becomes the standard runtime.

## Traction

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- **Core engine:** Proven convergence semantics in Rust
- **5 Packs:** Money, Customers, Delivery, People, Trust
- **Toolchain:** Truth-to-Rust compiler, validation suite
- **Early design partners:** [Placeholder]

# Partner Strategy: Win or Lose

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Partners are not a nice-to-have — they're **the strategy**.

Partner Type	Role	Value
Startups/Builders	Early adopters, feedback	Channel to their customers
System Integrators	Implementation	Enterprise credibility
Vertical ISVs	Domain Packs	Market expansion

Builders who trust Converge become our distribution channel.

## Community-Led Growth

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Marketing through **education**, not ads:

- **Meetups** — Local builder communities
- **Hackathons** — Build Packs, win prizes
- **Rewards** — Contributor recognition program
- **Certification** — Converge Builder credential
- **Content** — Tutorials, case studies, live streams

**Goal:** Builders recommend Converge to their clients.

# The Ask

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**Raising:** \$X seed round

**Use of funds:**

Category	Allocation	Focus
Community & Marketing	40%	Education, meetups, hackathons, brand
Engineering	35%	Core team, Pack development
Partnerships	25%	Builder program, integrator network

**Goal:** 50+ active builders, 10 partner-deployed customers

# Converge

STOP DRIFT. START CONVERGING.

## Contact

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Packages: [crates.io/converge-core](#) · [hex.pm/converge\\_ledger](#)