

AXIONEX

AUTONOMOUS CROSS-INTELLIGENCE EXECUTION NETWORK

\$AXNX

A technical whitepaper describing the architecture, tokenomics, and governance framework for AXIONEX — the first Level 5 sovereign AI execution network, launching on Base.

VERSION 1.0.0

DATE June 2026

TICKER \$AXNX

NETWORK [Base \(Coinbase L2\)](#)

CHAIN ID 8453

STANDARD ERC-20

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LEGAL DISCLAIMER

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Executive Summary

The AI agent landscape is undergoing rapid expansion. By mid-2026, thousands of autonomous agents operate across enterprise and consumer environments — yet they share no memory, coordinate no outcomes, and produce no verifiable accountability trail. Each agent exists as an isolated executor: powerful within a session, blind beyond it.

AXIONEX is the first Level 5 Symbiotic AI execution network. It provides the missing infrastructure layer: a constitutional knowledge graph with 91+ node types, six governance layers, cross-agent persistent memory, and on-chain execution receipts — all operating 24/7 across a decentralized node network.

The native token \$AXNX is deployed on Base — Coinbase's Ethereum L2 — powering governance, compute compensation, staking, and policy evolution incentives. AXIONEX is not another agent framework. It is the sovereign coordination layer that makes agent networks accountable, persistent, and compounding.

Key Metrics at Launch

Metric	Value
Knowledge Graph Nodes	11,000+
Node Type Primitives	91
Governance Layers	6
Production Daemons	18+
Uptime	24/7 Autonomous
Execution Receipts	Unlimited, On-Chain
Token Supply	100,000,000 AXNX
Network	Base (Coinbase L2)
Chain ID	8453
Token Standard	ERC-20

Fragmented Agent Ecosystems

The current AI agent paradigm is structurally broken in three critical ways:

No Shared Memory

Each agent session begins with zero context. Work done in Agent A is invisible to Agent B. The human operator becomes the only coordination layer — an expensive, error-prone, non-scalable bottleneck.

No Accountability Trail

When an agent acts, there is no verifiable record of intent, context, policy applied, or outcome achieved. Audits are impossible. Rollbacks are manual. Governance is a fiction.

No Policy Persistence

Rules set in one session vanish in the next. Every interaction is a new negotiation. There is no mechanism for organizational intelligence to compound over time.

The Cost

Tax Type	Measure	Impact
Time Tax	+3h / week	Re-orchestrating agents with no shared context.
Attention Tax	Constant interrupts	You become verifier, relay, and error-handler.
Failure Tax	Missed outcomes	Agents drop context. Tasks slip. No audit trail.

AXIONEX Architecture

AXIONEX is built on four architectural primitives:

01 Constitutional Memory

A Neo4j-powered knowledge graph with 91+ node types spanning six domains: Foundation, Vision, Strategy, Tactics, Execution, and Track. Every fact carries provenance — source, timestamp, confidence score, and version history.

02 Governance Engine

A policy-driven decision layer enforcing the Observe-Decide-Execute-Verify-Evolve loop. Every agent action passes through constitutional guardrails before execution.

03 Execution Layer

Tool actions via scoped permissions and workflow policies. Agents execute with verifiable receipts — immutable records of intent, context, policy, action, and outcome.

04 Receipt Infrastructure

Tamper-evident, exportable audit records for every network action. All logged and verifiable on Base.

Authority Tiers

Tier	Mode	Description
1	Observe	Log activity only. No actions taken.
2	Suggest	Recommendations surfaced to human. No execution.
3	Confirm	Propose action, require approval before executing.
4	Supervised	Execute, notify human, rollback available.
5	Autonomous	Act within policy bounds without per-action approval.

The Governance Loop

Every action in the AXIONEX network passes through five deterministic stages. The loop is constitutional — no agent can bypass it.

OBSERVE	Cross-agent signals, memory graph state, on-chain events, and external triggers ingested and normalized. Context integrity score (σ) calculated.
DECIDE	Priority ranking applied. Authority tier checked. Policy constraints evaluated. Decision tree executed with full traceability.
EXECUTE	Action dispatched via scoped tool permissions. Human approval requested if tier < autonomous. Receipt stub created.
VERIFY	Outcome measured against success criteria. Goal-action linkage confirmed. Receipt finalized and logged on Base.
EVOLVE	Policy updated from outcome delta. Memory graph enriched. Pattern detection runs. Next cycle initialised.

Synergy Gate

Automation ships only when measurably superior to either human or AI acting alone:

$$\sigma = P(h + AXNX) - \max(P_h, P_{AI})$$

$\sigma > 0$: ship. $\sigma = 0$: keep manual. $\sigma < 0$: block.

Agency Level Taxonomy

Based on AIMA (Russell & Norvig), Levels of Automation (Parasuraman et al., 2000), and LORA Framework (Beer et al., 2014).

Level	Initiative	Execute	Shared Mem	Policy Upd	Audit	Example
L1 Informational	✗	✗	✗	✗	✗	Search engines
L2 Reactive	✗	✗	✗	✗	✗	Chatbots
L3 Mixed-Init.	✓	✗	◇	✗	✗	ChatGPT, Claude
L4 Agentic	✓	✓	◇	✗	◇	Devin, AutoGPT
L5 AXIONEX	✓	✓	✓	✓	✓	Sovereign network

Sovereign Memory

Memory is what makes Level 5 possible. Without persistent memory, there is no user model. Without user model, no adaptation. Without adaptation — no sovereignty.

Portable

Not locked to a model or vendor. Export anytime in JSON/CSV. Switch providers. Migrate your full network graph.

Versioned

Every change tracked. Policies have version numbers. Facts have timestamps. Roll back any decision.

Provenance

Every fact has a source. Every belief has evidence. Full traceability from memory node to on-chain receipt.

Sovereign

Your data on your infrastructure. No corporate intermediary. No training on your network state. One-click deletion.

\$AXNX Token on Base

\$AXNX is an ERC-20 utility token deployed on Base (Chain ID: 8453). It is not a security. It powers four core network functions: governance voting, compute node compensation, staking for policy update rights, and cross-agent coordination fees.

Token Details

Parameter	Value
Token Name	AXIONEX
Symbol	\$AXNX
Standard	ERC-20
Network	Base (Coinbase L2)
Chain ID	8453
Total Supply	100,000,000 AXNX
Decimals	18

Token Distribution

Allocation	Amount (AXNX)	Percentage	Vesting
Network Rewards	30,000,000	30%	4 years, linear
Core Contributors	20,000,000	20%	1yr cliff, 3yr vest
Ecosystem Fund	20,000,000	20%	2 years, linear
Public Sale	15,000,000	15%	No lock
Strategic Reserve	10,000,000	10%	3 years, linear
Advisors	5,000,000	5%	1yr cliff, 2yr vest
TOTAL	100,000,000	100%	

Token Utility

- Governance: \$AXNX holders vote on protocol upgrades, policy parameters, and network treasury allocation.
- Compute Fees: Cross-agent execution requests priced in \$AXNX. Fees distributed to node operators.
- Staking: Lock \$AXNX to earn policy update rights. Higher stake = greater governance influence.
- Receipt Minting: On-chain execution receipts on Base require \$AXNX. Deflationary burn on each receipt.

Why Base

AXIONEX chose Base as its deployment network after evaluating all major EVM-compatible L2s. Base offers the optimal combination of security, cost, ecosystem, and distribution for an AI execution network operating at scale.

Ethereum Security

Base inherits Ethereum's security model via its OP Stack architecture. Execution receipts anchored to Ethereum finality.

Low Gas Costs

Transaction costs on Base are a fraction of Ethereum mainnet — essential for high-frequency agent execution receipts and cross-agent coordination fees.

Coinbase Distribution

Base is built by Coinbase, providing direct access to 100M+ Coinbase users and institutional on-ramps for \$AXNX.

Growing Ecosystem

Base hosts a rapidly growing DeFi and infrastructure ecosystem, enabling \$AXNX liquidity and composability with existing protocols.

EVM Compatibility

Full EVM compatibility ensures AXIONEX smart contracts are auditable, battle-tested, and interoperable with all major tools and wallets.

Decentralization Roadmap

Base is committed to progressive decentralization, aligning with AXIONEX's sovereign infrastructure thesis.

Network Infrastructure

AXIONEX runs 18+ production daemons 24/7 maintaining an 11,000+ node knowledge graph with real-time telemetry and on-chain receipts logged to Base.

Component	Technology	Status
Knowledge Graph	Neo4j (distributed)	Live · 11,000+ nodes
Execution Daemons	Custom runtime	Live · 18+ instances
Receipt Chain	Base (ERC-20 + events)	Testnet
Memory Export	JSON / CSV API	Live
Cross-agent Bus	gRPC + event stream	Beta
Governance Portal	Web3 + Base wallet	Q3 2026
DEX Liquidity	Base DEX (Aerodrome)	TGE Q3 2026

Roadmap

Phase 4 of 5 complete. We ship when it's ready, not when it's rushed.

✓	Phase 1 — Observe Q1 2025	Cross-agent signal detection. Shared memory bootstrap. 11K+ node graph live.
✓	Phase 2 — Decide Q2 2025	Rule-based decision engine. Priority enforcement. Authority matrix deployed.
✓	Phase 3 — Execute Q3–Q4 2025	Approval workflows. Action receipts. 18+ daemons live.
✓	Phase 4 — Verify Q1 2026	Outcome tracking. Goal-action linking. Receipt infrastructure.
→	Phase 5 — Evolve + \$AXNX TGE Q3 2026	Policy evolution from outcomes. \$AXNX token launch on Base. Governance portal live. DEX liquidity on Aerodrome.

Privacy & Security

Privacy is not a feature — it is an architectural requirement. True sovereignty requires your network graph belongs to you, not any intermediary.

Local-First — Network graph lives on your infrastructure by default. Cloud sync is opt-in and E2E encrypted.

No Data Monetization — AXIONEX does not sell, rent, or trade agent execution data. No advertising. No profiling.

Full Provenance — Every data point carries source, timestamp, and usage trace.

Revocable Access — Disconnect any integration. Delete any data. Immediate effect.

Audit Trail — All network actions logged with immutable receipts on Base.

Security — TLS in transit. AES-256 at rest. E2E encryption for sensitive vaults. Smart contracts audited pre-launch.

Team & Advisors

AXIONEX is built by a distributed team of AI engineers, distributed systems architects, and cryptography researchers with backgrounds spanning frontier AI labs, Web3 protocol development, and enterprise infrastructure.

Follow @axionex_ai on X for team reveal announcements ahead of TGE.

Contact: team@axionex.network

Conclusion

The AI agent era is here. But agents without sovereignty are tools, not partners. Without persistent memory, they forget. Without governance, they drift. Without accountability, they cannot be trusted with real outcomes.

AXIONEX provides the missing layer: constitutional memory, policy-governed execution, on-chain accountability on Base, and cross-agent coordination — all in a sovereign, portable, auditable network that compounds over time.

The future of AI is not assistance. It is execution sovereignty.

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