Bit2: Enabling Agentic Commerce in a Bitcoin-Native Economy

Executive Summary

Autonomous systems are rapidly becoming economic actors. They consume computation, data, energy, and services continuously, coordinate programmatically, and operate at scales and timescales that differ fundamentally from human economic activity.

This shift implies a qualitative change in economic infrastructure requirements. Agentic commerce demands neutral settlement, deterministic enforcement, high-frequency coordination, and verifiable fulfillment. These are properties that existing financial systems and general-purpose blockchains are structurally ill-equipped to provide.

Bitcoin is uniquely positioned to serve as the settlement layer for agentic economies. Its rules are deterministic, its operation is neutral, and its enforcement does not depend on discretionary governance or institutional trust. However, Bitcoin Layer 1 is intentionally constrained and cannot serve as a high-frequency execution environment.

Bit2 introduces a new category of Bitcoin Layer 2 designed explicitly for sovereign agent-scale economic activity. It separates execution, validation, and enforcement: autonomous systems execute and coordinate locally; correctness and fulfillment are verified cryptographically; and Bitcoin enforces outcomes and provides final settlement when required.

By enabling verifiable computation, conditional clearing, configurable disclosure, and irreversible settlement to Bitcoin Layer 1, Bit2 allows sovereign agents economic activity to occur at scale and without expanding Bitcoin's trust model or relying on centralized operators.

Bit2 is not designed as a retail payment network or a generalized execution platform. Its primary purpose is to serve as foundational infrastructure for autonomous markets—initially exemplified by AI compute and agent-to-agent services, but generalizable to a broad class of sovereign agent-native economic interactions. As agentic commerce increases Bitcoin's transactional velocity and adoption, human-facing payment systems built on Bit2 may emerge naturally as a downstream evolution rather than as a primary design objective.

The architecture reflects a progression of Bitcoin Layer 2 research and experience focused on preserving Bitcoin's neutrality while extending its usability. Rather than optimizing for rapid feature expansion, Bit2 prioritizes correctness, durability, and alignment with Bitcoin's long-term role as a global settlement layer.

As agentic economies grow, infrastructure that enables verifiable, enforceable, and scalable economic coordination becomes essential. Bit2 represents a fundamental step extending Bitcoin's enforcement guarantees to enable a future of sovereign agent-native economic activity.