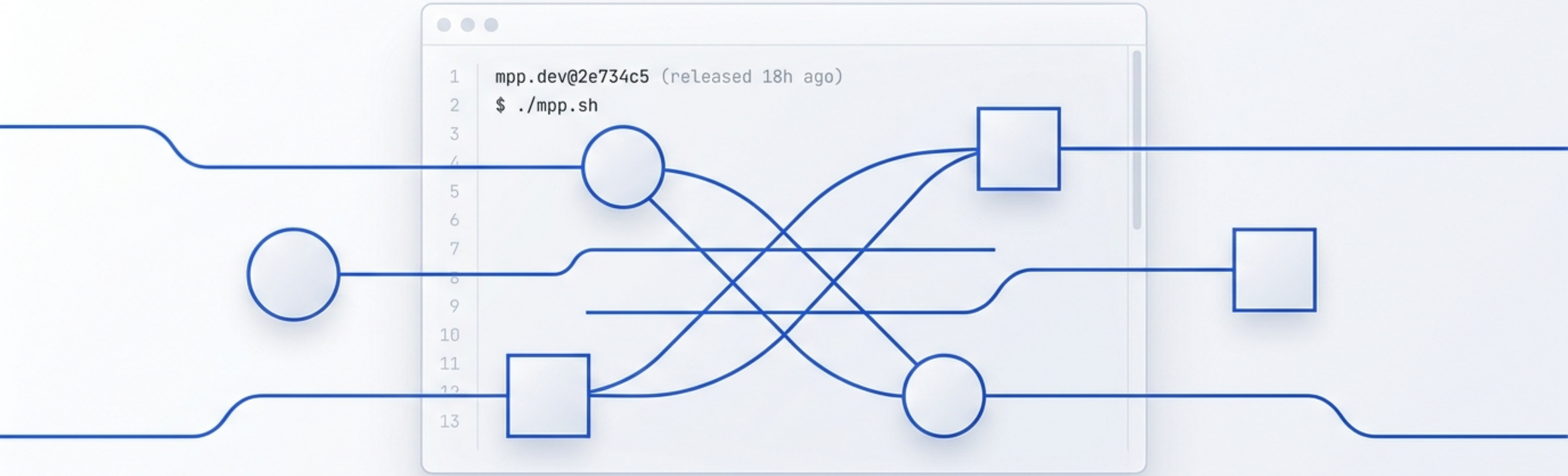
The Machine Payments Protocol (MPP)

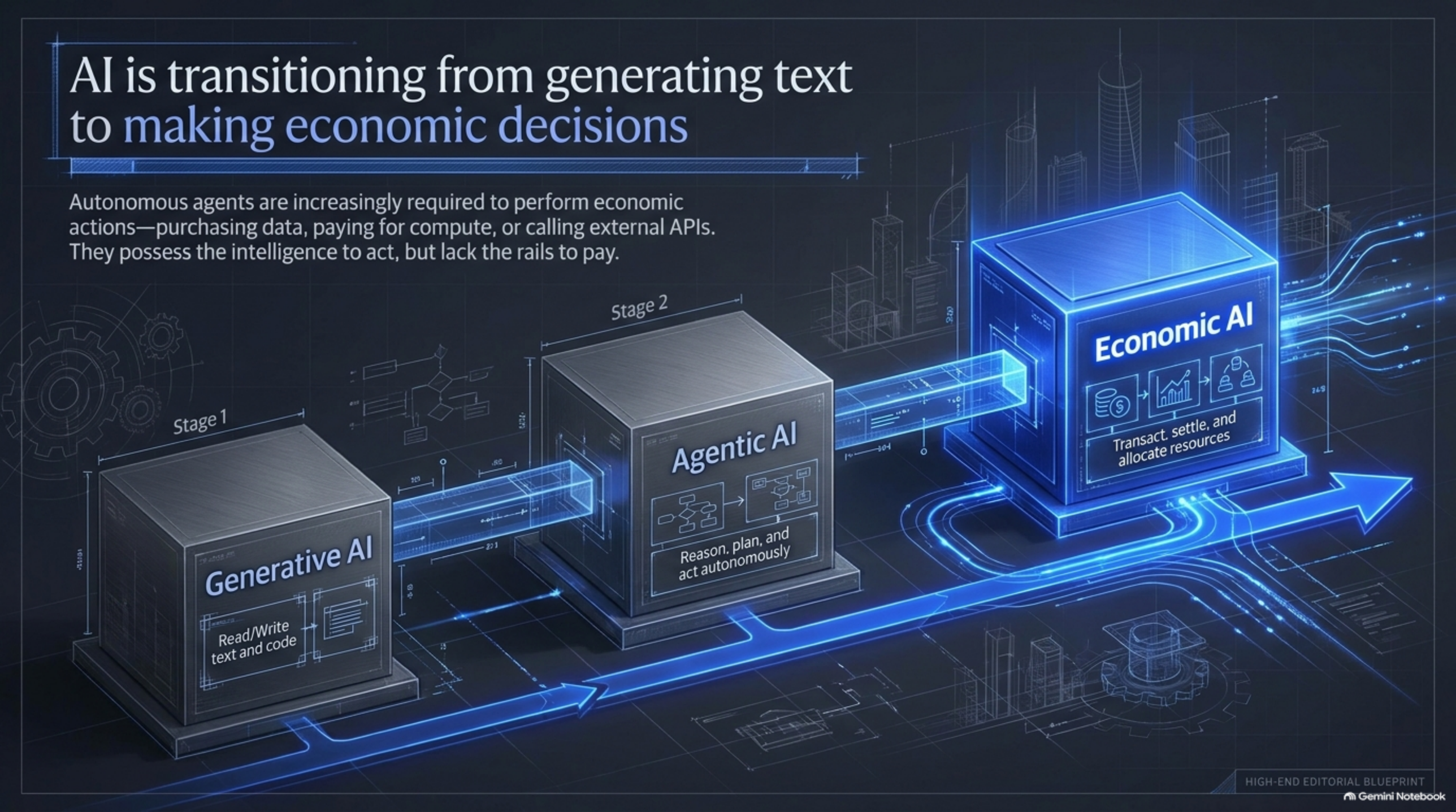
A Technical Explainer for the Agentic Stack



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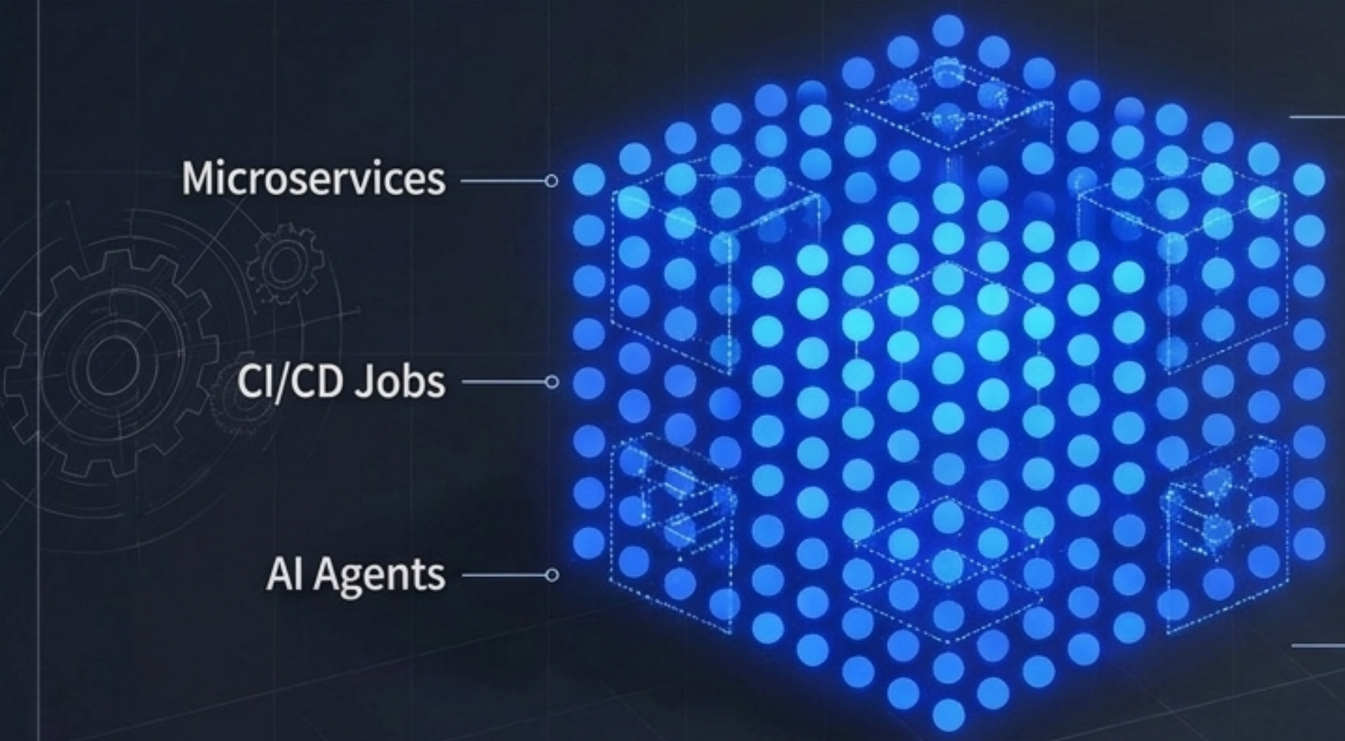
AI is transitioning from generating text to making economic decisions

Autonomous agents are increasingly required to perform economic actions—purchasing data, paying for compute, or calling external APIs. They possess the intelligence to act, but lack the rails to pay.



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Non-human identities now outnumber human users by up to 92:1



Non-Human Identities (NHIs) 92:1

Human User 1:1

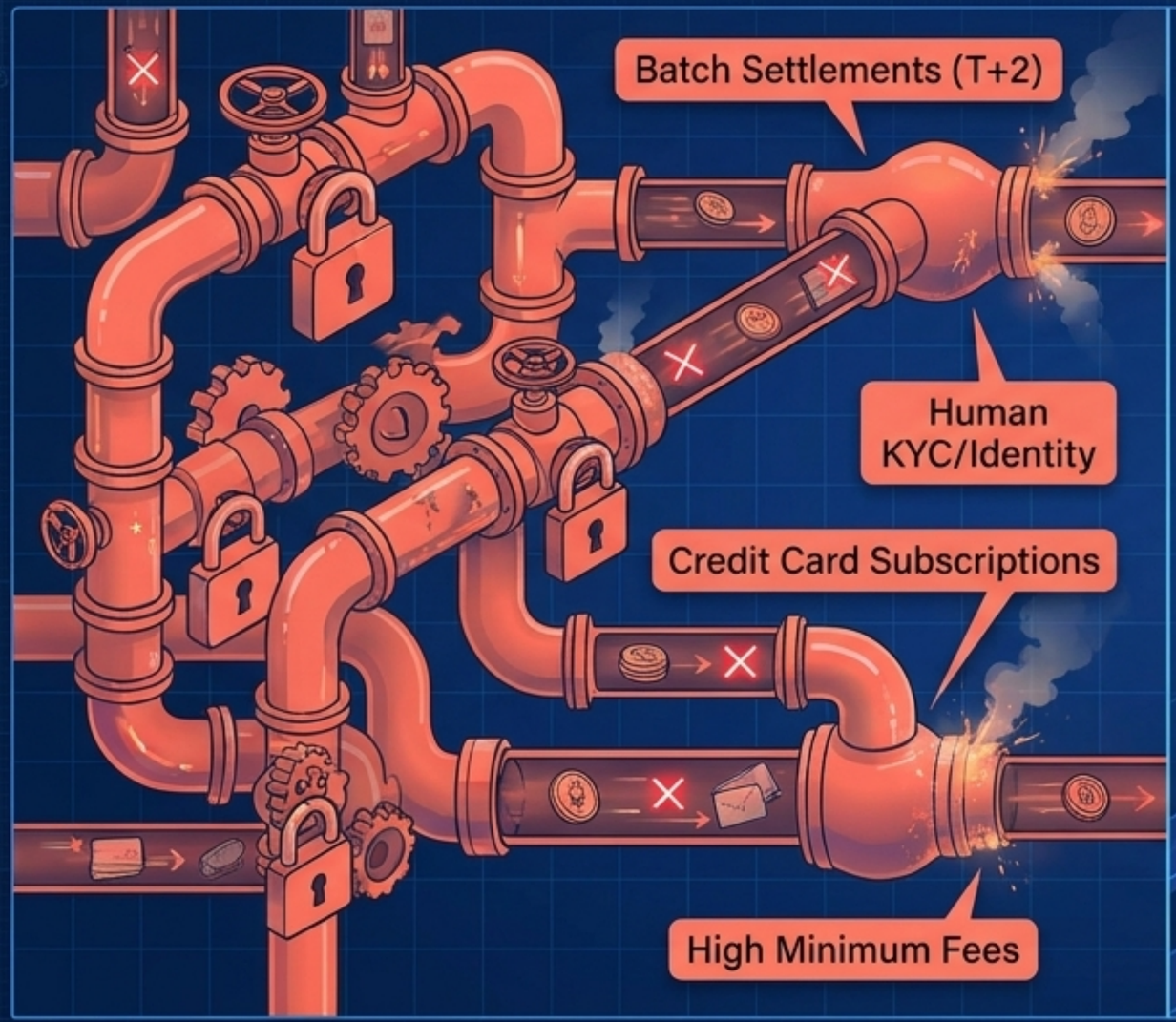
The Scale:
Modern IT architectures operate on machine-to-machine interactions. NHIs outnumber humans 45:1 to 92:1.

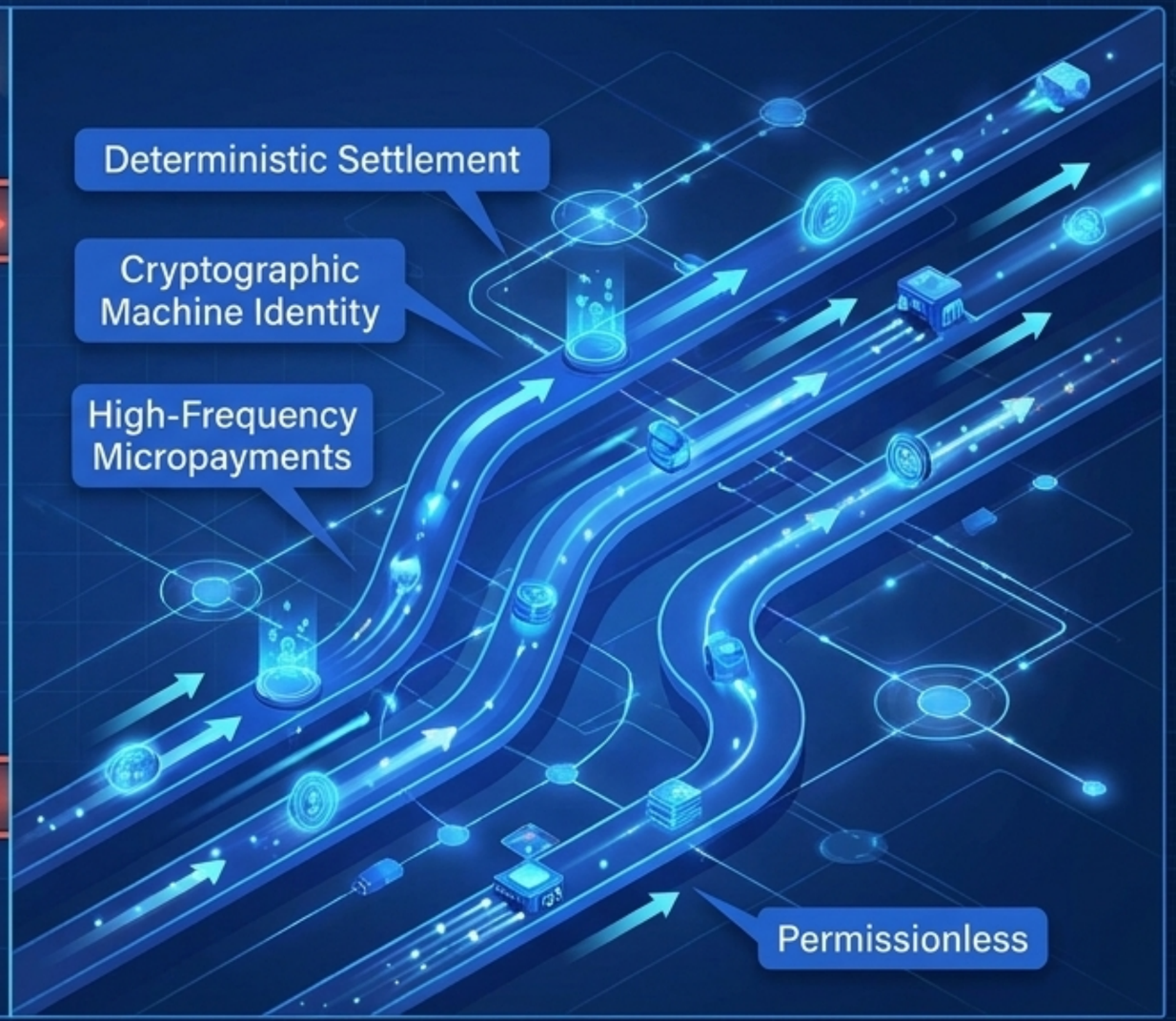
The Problem:
Traditional human-centric authentication (SSO, MFA, passwords) completely breaks down at this scale. Agents require zero-trust workload identities and automated machine-to-machine (M2M) authentication to establish trust boundaries.

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Legacy financial rails fundamentally fail autonomous machines

Traditional finance requires centralized approval, identity verification, and slow settlement batches.
Autonomous agents require continuous, programmatic, and deterministic value transfer.





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The 2026 Agentic Payment Stack

The industry has standardized a modular stack. MPP and x402 do not exist in a vacuum; they sit at the apex, handling the pure execution of value transfer once identity and authorization are proven.



Execution
MPP (Session)
Continuous-Flow

Authorization
AP2 (Google-backed spending mandates)

Coordination
A2A (Linux Foundation task routing)

Identity & Reputation
ERC-8004
(On-chain agent identity)

Execution
x402 (Per-Request)
Instant transaction

Authorization
AP2 (Google-backed spending mandates)

Coordination
A2A (Linux Foundation task routing)

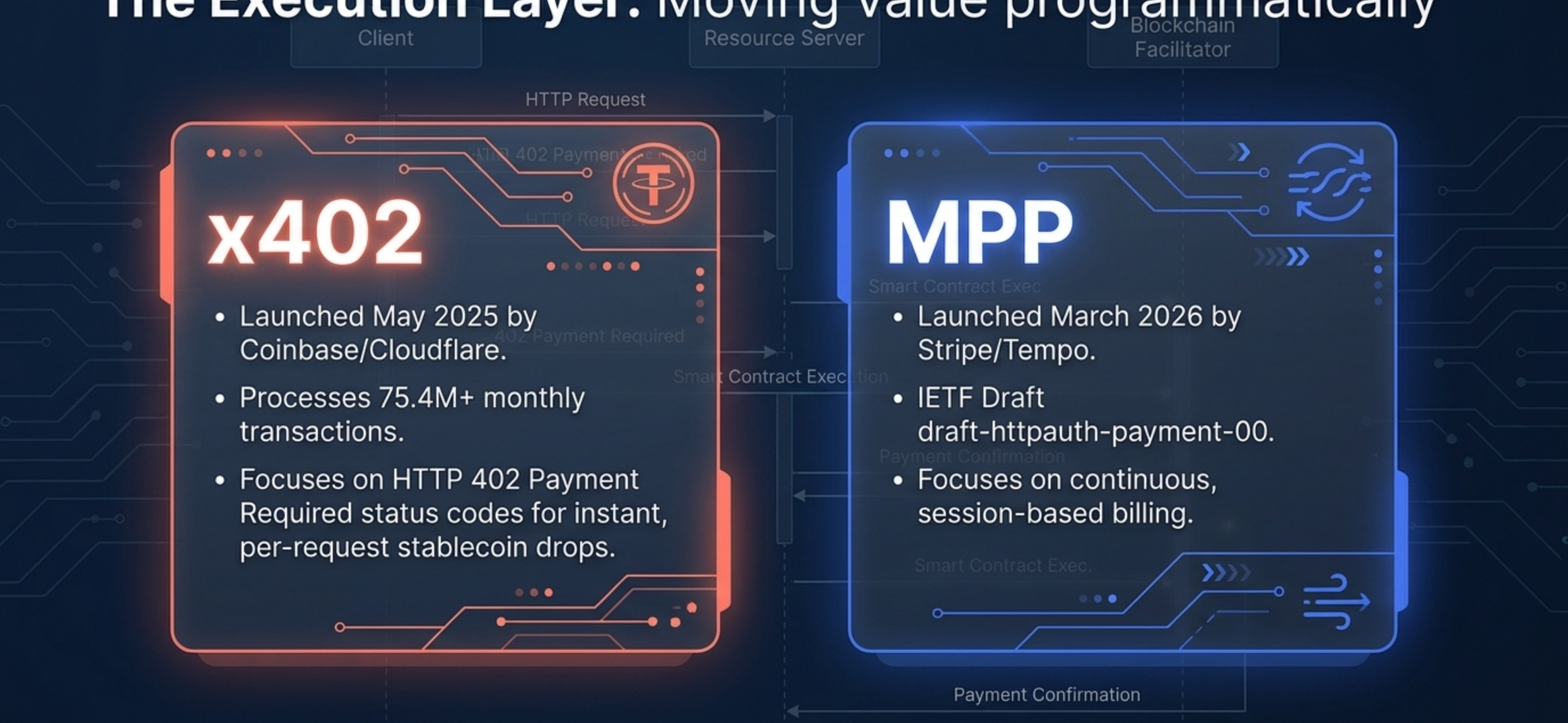
Identity & Reputation
ERC-8004
(On-chain agent identity)

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Architectural Sequence

The Execution Layer: Moving value programmatically



x402

- Launched May 2025 by Coinbase/Cloudflare.
- Processes 75.4M+ monthly transactions.
- Focuses on HTTP 402 Payment Required status codes for instant, per-request stablecoin drops.

MPP

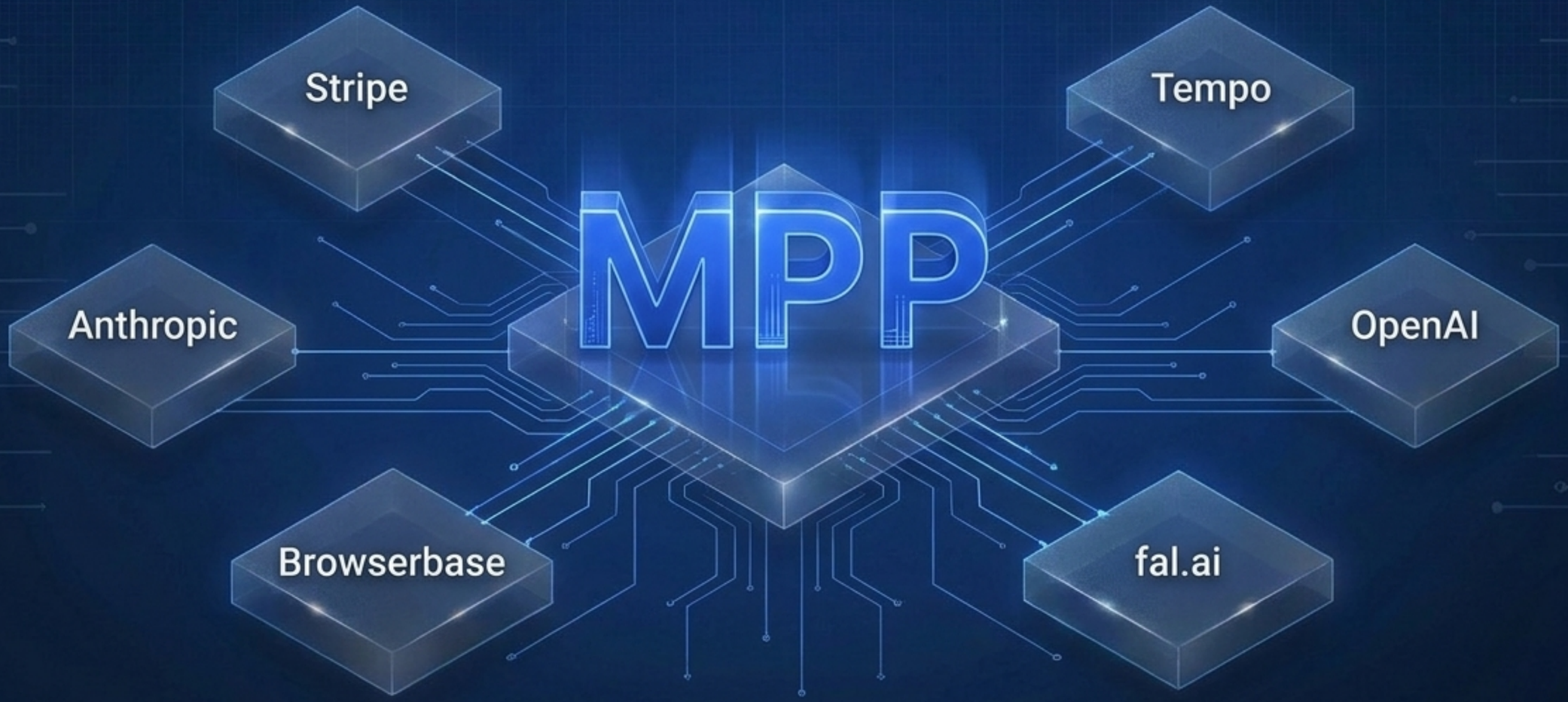
- Launched March 2026 by Stripe/Tempo.
- IETF Draft draft-httpauth-payment-00.
- Focuses on continuous, session-based billing.

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Enter the Machine Payments Protocol (MPP)

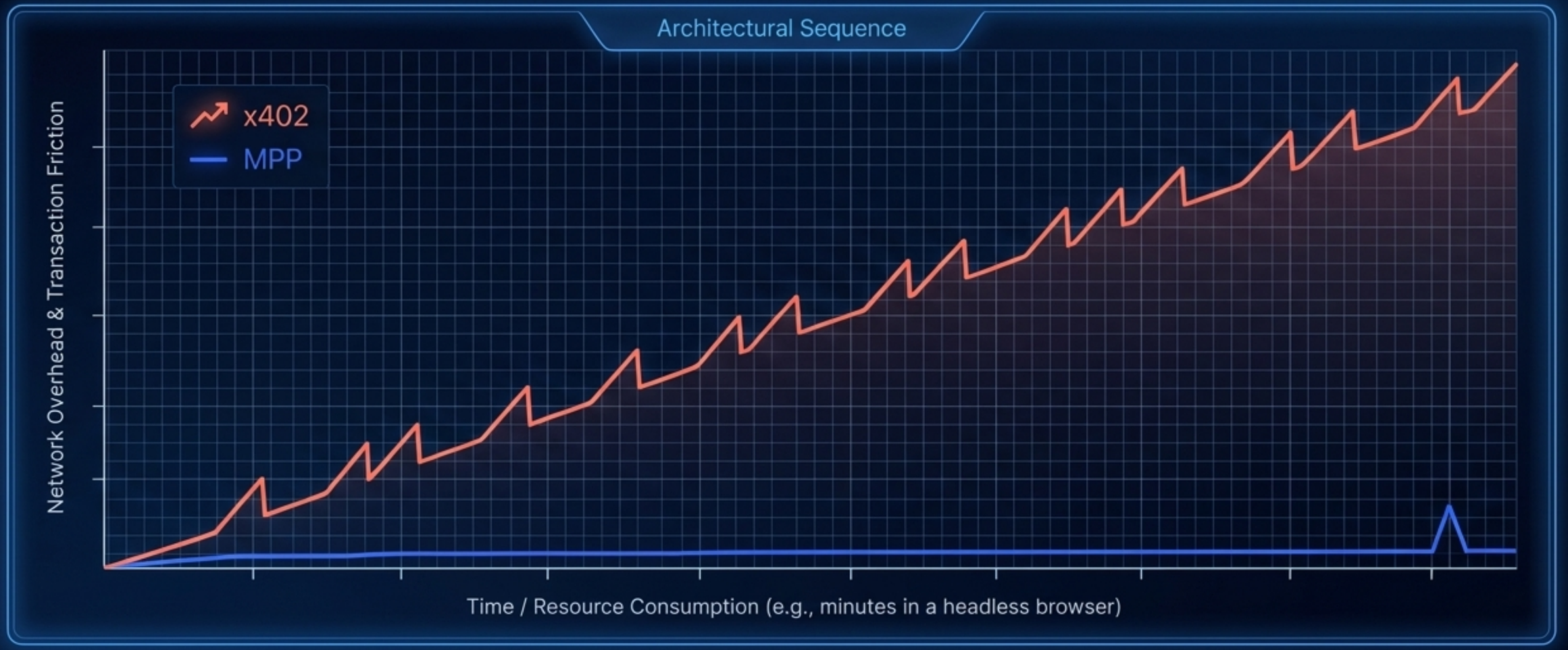
MPP is an open IETF standard designed by Stripe and Tempo. It enables AI agents to pay for services on the web via session-based billing, extensible to any payment method, directly connecting agent runtimes to HTTP services.



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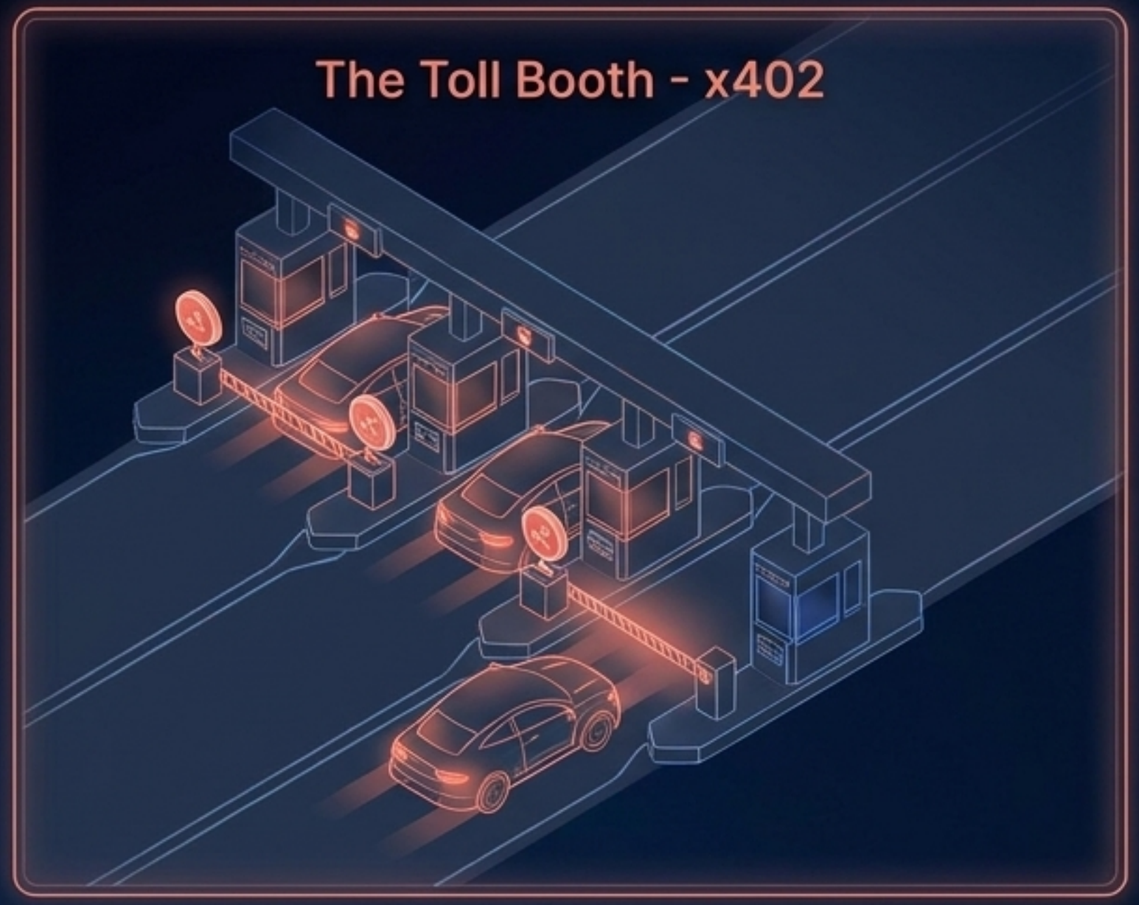
The problem with per-request payments for continuous consumption

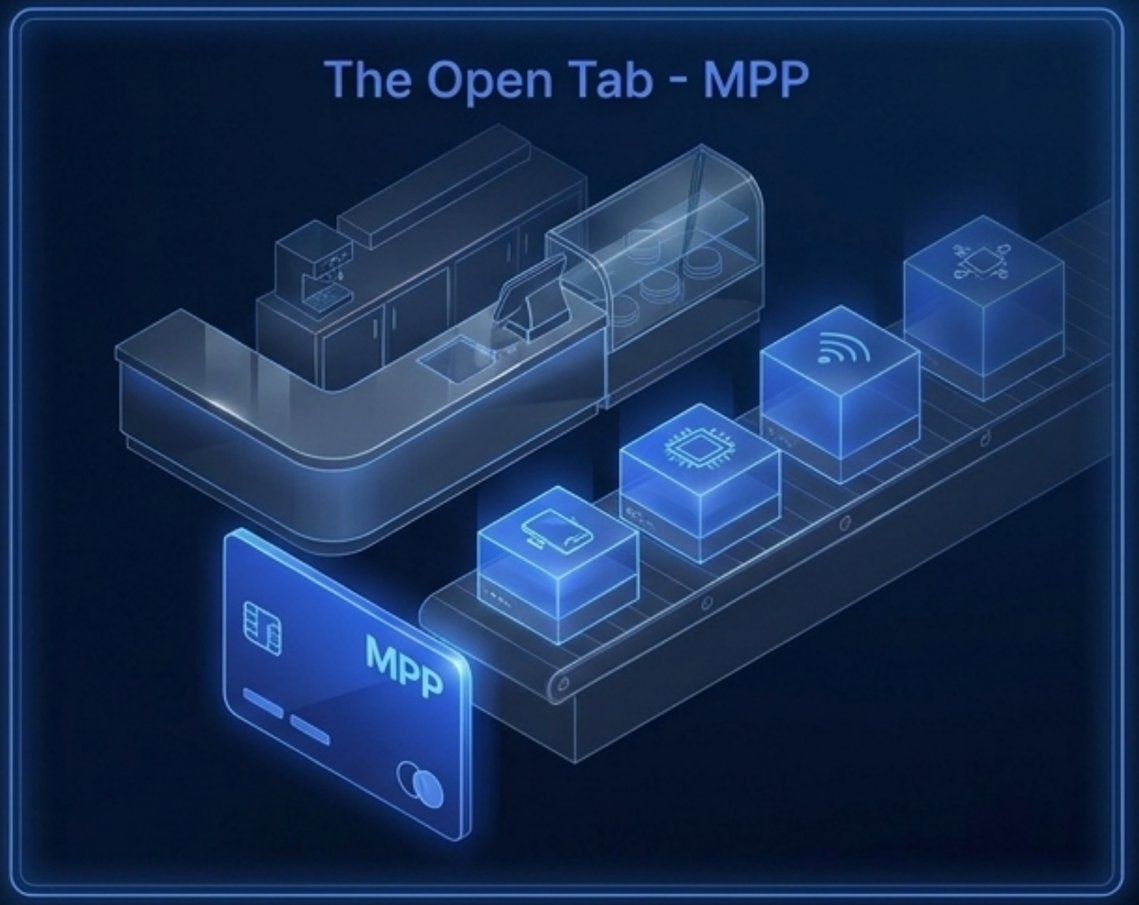
x402 is perfect for standalone API calls. But when an agent consumes a continuous stream of compute, multi-hop web research, or headless browser time, paying per-request generates massive network overhead and cryptographic friction.



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Execution Models: The Toll Booth vs. The Open Tab





The Toll Booth - x402

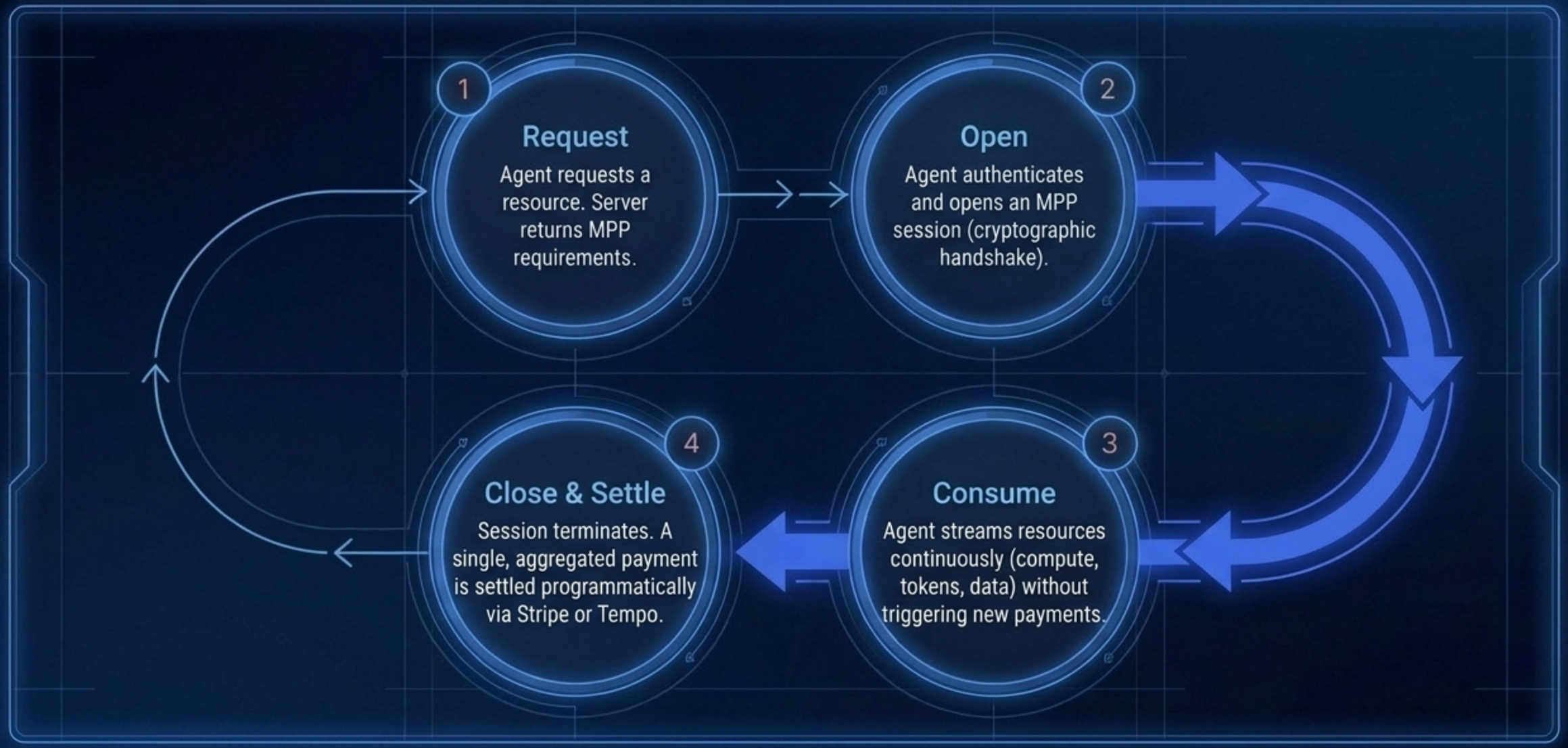
High friction for long journeys. Settle every step.

The Open Tab - MPP

Zero friction for continuous use. Settle at session close.

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The MPP Session Lifecycle



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Developer Experience: Seamless integration via existing rails

MPP leverages **existing enterprise billing infrastructure**. Tax calculation, fraud protection, and reporting apply to agent transactions automatically through **Stripe PaymentIntents**.

```
// Stripe server: accept MPP payments via PaymentIntents
const paymentIntent = await stripe.paymentIntents.create({
  amount: 1, // Final aggregated session cost
  currency: "usd",
  payment_method_types: ["crypto"],
  payment_method_data: { type: "crypto" },
  payment_method_options: {
    crypto: {
      mode: "deposit",
      deposit_options: { networks: ["tempo"] }
    }
  },
  confirm: true
});
```

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Security Architecture: The Master Signer and Delegated Authority

AI agents are never given total autonomy over user wealth. The human owner utilizes a hardware Master Signer to grant cryptographically scoped, time-bound session keys. Zero trust for machines.



Agentic Wallet / Smart Account
Operates autonomously within limits

MPP Session Token
Scoped strictly to a $5.00 limit and a 1-hour expiration

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Settlement: Powered by native multichain USDC

MPP relies on interoperable settlement layers like the Circle Payments Network (CPN).



No Wrapped Assets:
Native multichain reach across 25+ blockchains.

No Third-Party Bridges:
Eliminates bridge exploit risks.

Instant Liquidity: Real-time pay-ins and payouts, allowing agents to hold dollar-denominated liquidity where they operate.

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Composing the Stack: AP2 Authorization meets MPP Execution

Protocols do not compete; they compose. AP2 proves the agent has the permission to spend. MPP actually moves the money.

Step 1: Intent Mandate (AP2)

Human signs an AP2 mandate: Agent can spend up to $50 on cloud compute this week.



Step 2: Cart Mandate (AP2)

Agent finds an AWS server, generates an AP2 Cart Mandate referencing the Intent.



Step 3: Session Open (MPP)

Agent opens an MPP session with the provider, backed by the AP2 authorization.



Step 4: Settle (MPP)

Agent streams compute for 3 days. Session closes. Final cost: $31.40. Settled via MPP.



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Diagnostic Matrix: Selecting your execution protocol

Pristin, 3-column comparison table considers axe usesr nores and snltux out the ratte spenched by glowing 1px borders, amber and cobalt.

	x402	AP2	MPP
Billing Model	Per-request	Pre-authorized Mandates	Session-based
Network Backing	Coinbase / Cloudflare	Google + 60+ orgs (Amex, Mastercard)	Stripe / Tempo
Ideal Use Case	Standalone API calls / Data queries	Delegated budgets / Regulated tasks	Ongoing compute / Headless browser / Data streams
Core Analogy	The Toll Booth	The Corporate Card	The Open Tab

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MPP is live in production today

Browserbase

Use case: Headless browser sessions. Agents pay per minute of web scraping and interaction.



Parallel

Use case: Multi-hop web research. Agents can autonomously pay per API call for web access anywhere in the world.



Anthropic / OpenAI (via Tempo)

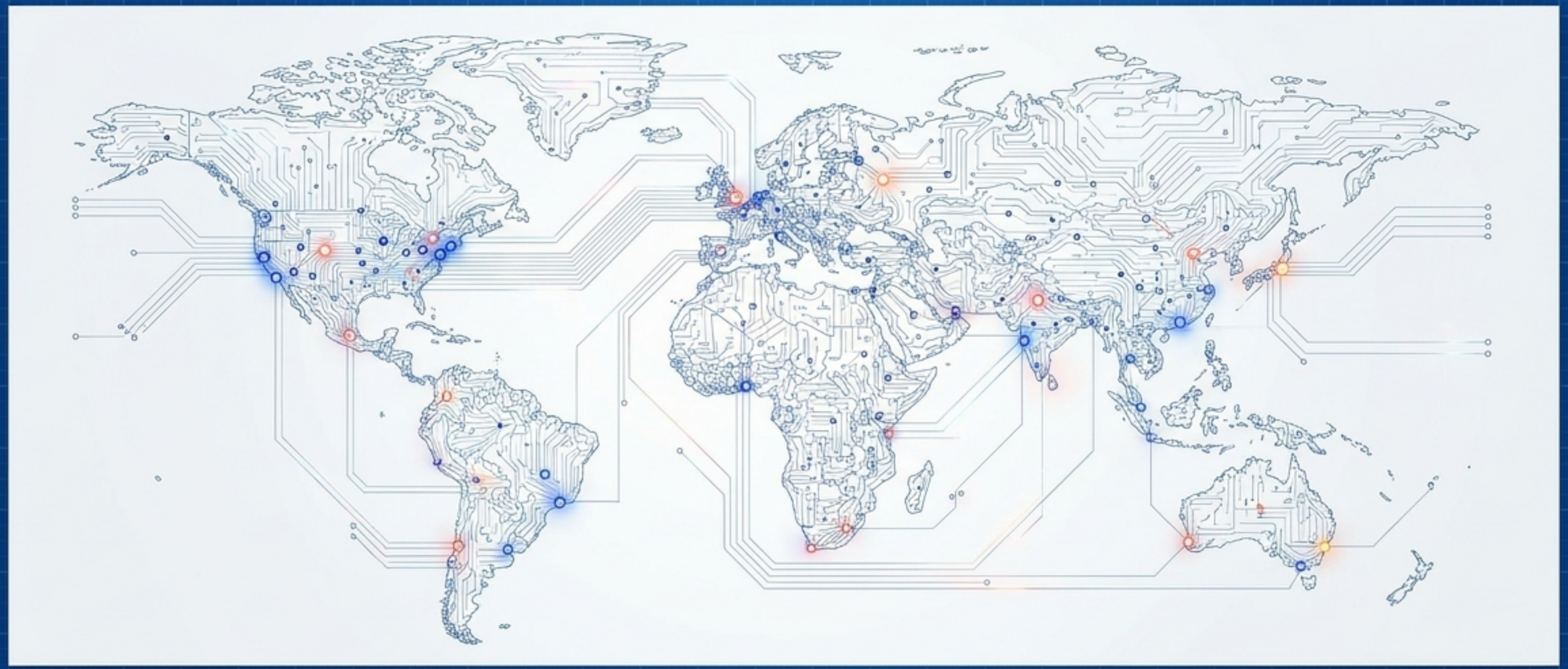
Use case: Native chat completions and model-tier pricing (Claude Sonnet/Opus) dynamically billed via agent sessions.



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The convergence toward an interoperable Web of Agents

The convergence of zero-trust identity, decentralized settlement, and native protocols like MPP moves us away from isolated, walled-garden AI. We are building the infrastructure for a seamless, interoperable Machine-to-Machine economy.



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Build the Machine Economy

Architecture is destiny. Equip your agents with the payment rails they need to operate autonomously.

Read the Specs:
mpp.dev

Deploy via Stripe:
docs.stripe.com/payments/machine

Implement MPC Signers:
github.com/fystack/mpcium

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