

OPEN x402 STANDARD

· VERIFIED LIVE ON MAINNET

The universal payment rail for the **agent economy**.

Any API charges for itself. Any AI agent pays on its own.
One line, every chain — straight to your wallet. No backend, no fee.

29 chains· **10** families· **\$0** fee· **MIT** open source

```
$ npm install @piprail/sdk viem
```

WHY NOW

Money itself is moving **on-chain** — at trillions of scale.

In 2025 stablecoins stopped being “crypto” and became settlement infrastructure. The rails the agent economy needs are already being laid — by the biggest names in finance.

\$33T

stablecoins settled in 2025
— up 72% YoY

Bloomberg

> Visa + MC

stablecoin transfer volume
passed Visa + Mastercard
combined
CEX.IO

\$1.1B

Stripe paid for Bridge to own
the stablecoin rails

CNBC

GENIUS Act

first US federal stablecoin
law — passed 68–30, signed
2025
Congress.gov

“Stablecoins are the room-temperature superconductors for financial services.”

Patrick Collison

CEO, Stripe

AI agents are a new economic actor — and they can't use your checkout.

Agents now earn and spend on their own — buying data, paying for compute, selling their work. They can't sign up, hold a credit card, or click “subscribe.” The web has no way to charge them.



No account, no card

An autonomous agent can't verify an email or type a card number. Every human onboarding step is a dead end.



Bursty, per-call usage

Agents make many tiny calls, unpredictably. Subscriptions and seat licences don't fit how machines consume.



Locked to one chain

An agent holds funds on whatever chain it runs on. A rail bound to one network can't serve the ecosystem.

98.6%

of agent payments
settle in USDC

176M

agent transactions
in 12 months · avg \$0.31

\$3–5T

agentic commerce
by 2030 (McKinsey)

THE STANDARD

The whole industry is converging on one protocol: x402.

Coinbase revived HTTP's dormant "402 Payment Required" as a machine-native payment standard — then donated it to the Linux Foundation. It's the neutral rail the agent economy is standardizing on. It's what PipRail speaks.

THE 402 HANDSHAKE

GET	/report	agent requests a paid resource
402	Payment Required	server returns price · token · chain · payTo
PAY	on-chain	agent pays — straight to the wallet
200	OK	retry with proof · content flows

22

of the world's biggest tech + finance
companies steward x402 under the Linux
Foundation
LINUX FOUNDATION · 2026

STEWARDED BY

Google · Microsoft · Amazon · Stripe · Visa · Mastercard · Circle
· Cloudflare · Shopify · Coinbase · American Express · Solana
Foundation

Google's Agent Payments Protocol (AP2) uses x402 as its default
stablecoin rail — 60+ launch partners.

THE CATCH

But the money is scattered across hundreds of chains that don't talk to each other.

An agent holds funds on whatever chain it runs on. A rail bound to one network reaches only a slice of them — and bridging between chains is the single most-exploited thing in crypto.

—
500+

live blockchains — yet the top 5 hold ~80% of the money
DeFiLlama

—
50%

of the top-10 chains can't natively talk to each other
Particle Network

—
\$4B+

stolen through cross-chain bridges since 2021
Chainalysis · Immunefi

—
65%

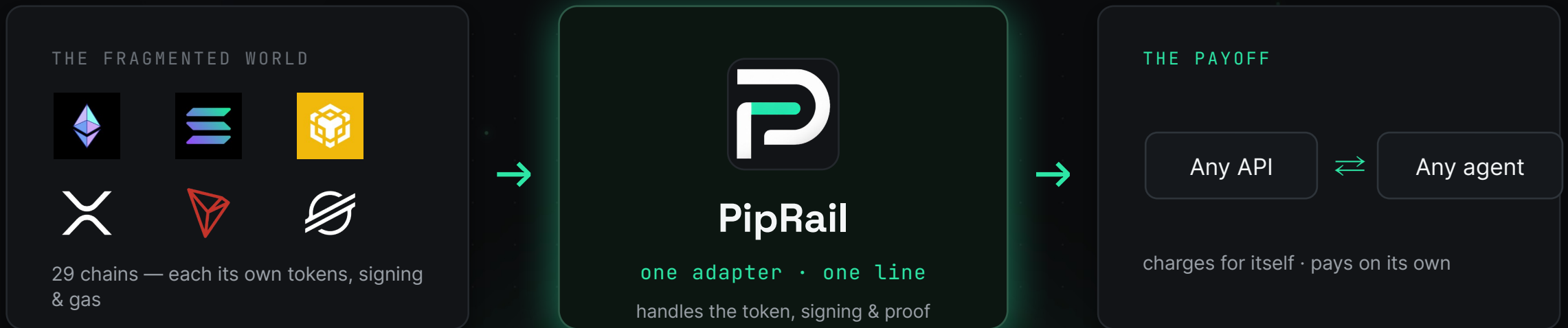
of x402 volume is on Solana — an EVM-only rail misses it
Linux Foundation

“The original vision of L2 and its role within Ethereum no longer makes sense.”

Vitalik Buterin
co-founder, Ethereum

THE FIX

PipRail is the universal adapter. **One line pays every chain.**



Name a chain — PipRail handles the token, the signing and the proof. The only SDK that reaches TON, Tron, NEAR, Sui, Aptos, Algorand, Stellar & the XRP Ledger together with every major EVM chain and Solana.

29 chains · **10** families · **1** line · **\$0** fee

HOW IT WORKS

A four-step round trip over plain HTTP. **No middleman.**

PipRail is a tool you npm install, not a service you sign up for. Nothing sits between the payer and your wallet.

01

Agent calls your route

It gets back a 402 quote:
price, token, recipient, chain.

02

Agent pays on-chain

One transfer, straight to your
wallet. PipRail never touches
the funds.

03

You verify locally

Checked against your own
RPC: right amount, recipient,
recent, unspent.

04

You return the data

200 OK — and the same
proof can never be spent
twice.

A TOOL, NOT A PLATFORM

✕ No hosted facilitator or relayer

✕ No database

✕ No account or API key

✕ No monthly or protocol fee

Two sides, one SDK.

The same package lets a server charge an agent for a route — and an agent pay for one. A couple of lines each.

- ACCEPT charge an agent for any endpoint

```
server.ts

import { requirePayment } from '@piprail/sdk'

app.get('/report',
  requirePayment({
    chain: 'base',
    token: 'USDC', amount: '0.05', payTo
  }),
  handler,
)
```

- PAY let an agent pay for itself

```
agent.ts

import { PipRailClient } from '@piprail/sdk'

const client = new PipRailClient({
  chain: 'bnb',
  wallet: { privateKey },
})

// on a 402: pays, then retries
const res = await client.fetch(url)
```


Give your AI agent **a wallet.**

Paste one config block and Claude, Cursor, or any MCP client pays x402 APIs on its own — capped by a spend policy it cannot exceed. No code, no backend, no custody.

```
claude_desktop_config.json

{
  "mcpServers": {
    "piprail": {
      "command": "npx",
      "args": ["-y", "@piprail/mcp"],
      "env": {
        "PIPRAIL_CHAIN": "bnb",
        "PIPRAIL_MAX_AMOUNT": "0.10"
      }
    }
  }
}
```

SEVEN TOOLS YOUR AGENT GETS

- ◆ **piprail_discover** find payable APIs on the open indexes
- ◆ **piprail_quote** price a gated URL — without paying
- ◆ **piprail_plan** check balance, gas & recipient readiness
- ◆ **piprail_pay** fetch it, paying the 402 automatically
- ◆ **piprail_register** list an endpoint so other agents find it
- ◆ **piprail_budget** read the remaining spend + time leash
- ◆ **piprail_guide** the agent contract: how to quote, plan, pay

Open standard. No middleman. **Anyone can pay you.**

Funds settle to your wallet, verified against your own RPC. Nobody can rate-limit you, take a cut, or shut you off — yet any x402 client in the world can still pay your gate.



Nobody in the middle

No facilitator, no relayer, no custody. The payer broadcasts their own transfer; you verify against your own RPC. No one can take a cut or switch you off.



Speaks the standard

PipRail's envelope is x402 v2-conformant — so any x402 client, Coinbase's or the reference client, can pay your gate. Proven on Base mainnet.



One gate, both rails — gasless

Advertise the backendless onchain-proof rail and the ratified exact (EIP-3009) rail at once. On USDC the payer just signs: zero gas, no approval.

✓ **Verified end-to-end** against the official x402 reference client on Base mainnet — a real 402 → pay → confirm → verify → 200 round trip, with replay rejected.

Payable isn't the same as findable — PipRail is both.

Make endpoints discoverable on the open x402 indexes — nothing PipRail-hosted — and drop the whole thing into the frameworks agents already live in.

BACKENDLESS — BUILT ON THE OPEN x402 INDEXES

1

Emit

Turn your gate config into a crawlable openapi.json on your own origin.

2

Register

client.register(url) lists you on the open 402 Index — no auth, no fee.

3

Discover

client.discover({ query }) reads the open indexes so an agent finds what to pay.

USE IT WHERE YOUR AGENTS LIVE

OpenClaw

LIVE

A budget-bound wallet for any OpenClaw agent across 29 chains — install the ClawHub skill, add one mcp.servers entry

```
$ clawhub install piprail
```

MORE COMING

Vercel AI SDK

Mastra

ElizaOS

Each just wraps @piprail/mcp — the agent gets all seven tools, budget-bound, straight to your wallet.

Everyone else is per-ecosystem. PipRail is the neutral layer across all of them.



Universal

The only x402 SDK that's truly chain-agnostic — 29 chains, 10 families, including the non-EVM world no one else touches.



Backendless · \$0 fee

No facilitator, no custody, no cut. The 0% rail is the moat: chains fund PipRail instead of fighting it.



Agent-native

An MCP server, a spend policy the model can't exceed, and a plan → quote → pay flow built for autonomy.



Open — MIT, forever

Every driver, the SDK, the MCP. Fork it, audit it, ship it. Open is how a neutral rail wins trust.



Live, not a whitepaper

Mainnet-proven across 29 chains, two npm packages shipping, integrations in the wild — today.

ALREADY SHIPPING

This isn't a whitepaper. It's live.

Two packages on npm, mainnet-proven across every chain it ships, an MCP in the official registry, and the first framework integration already live.

- @piprail/sdk + /mcp

Both live on npm. Publishing is tag-driven, signed CI — never by hand.

- 29 chains, mainnet-proven

Real 402 → pay → verify → 200 round trips on live mainnets, with replay rejected.

- MCP in the official registry

Auto-published via GitHub OIDC — listed + isLatest. Also on Glama.

- OpenClaw — live on ClawHub

clawhub install piprail, published under the @piprail org. Moderation: clean.

- Live payable x402 demo

piprail.com/demo settles on Base mainnet — listed on x402scan + 402 Index.

- MIT open source + docs

Full SDK + MCP + chain docs on docs.piprail.com. Fork, audit, ship.

THE MODEL

The rail stays free. The value is the network on top.

0% on the payment path is the moat — it's why chains, agents and merchants adopt PipRail instead of routing around it. We monetize the layer around the free rail, never the payment itself.

FREE RAIL — MIT, 0% FOREVER

The SDK, the MCP server, every chain driver. The distribution and the adoption flywheel — and the reason the ecosystem trusts it.

↓ value accrues to

TODAY

Ecosystem

Chain sponsorships, grants and integration partnerships fund native driver depth.

NEXT

Managed layer

Hosted fleet budgets, spend analytics and SLAs for teams running many agents.

NEXT

Discovery + reputation

Premium placement and trust scores built from real, ungameable payment receipts.

POTENTIAL

Network token

Align chains, agents and merchants as the rail scales — value to the network, not a toll.



Own the payment rail for the agent economy.

PipRail is open, neutral and already live across 29 chains. We're raising to go from "the best x402 SDK" to the default settlement layer every agent reaches for. We're looking for the partners who want open payment rails to win on their network.

Invest

Fund coverage, hardening and an external audit.

Sponsor a chain

Native driver depth + support on your network.

Integrate & partner

Bring PipRail to your agents, docs and ecosystem.

piprail.com

github.com/piprail

npmjs.com/package/@piprail/sdk