

THEMATIC RESEARCH · BITCOIN × ARTIFICIAL INTELLIGENCE · 2026–2030

The AI economy's Bitcoin TAM is option value: \$1.5–5 trillion of 2030 forecasts against roughly \$50 million of settled reality.

Version 1.1 · All claims independently verified against primary sources, 10 June 2026 ·

\$1.5–5T

 FORECAST AGENTIC -
COMMERCE VALUE, 2030
(JUNIPER; MCKINSEY)

~\$50M

 CUMULATIVE CRYPTO -
SETTLED AGENTIC VOLUME
THROUGH APR 2026

>\$70B

 CONTRACTED AI/HPC
REVENUE ACROSS PUBLIC
BITCOIN MINERS

Executive summary

The "AI pays in Bitcoin" thesis is real but pre-revenue. Forecasts put agentic commerce at \$1.5–5 trillion of annual value by 2030^{[1][2]}; the leading live payment rail for AI agents has settled roughly \$50 million — cumulatively — through April 2026^{[7][17]}. That rail is not Bitcoin: Coinbase's x402 protocol settles in stablecoins and was institutionalized under the Linux Foundation in April 2026 with Stripe, Cloudflare, Shopify, and Solana as founding members^{[5][6]}. Bitcoin's native agent stack — L402, Lightning agent tools, identity-free pay-per-call — shipped in February 2026 and is technically complete, with no published volume^{[3][4]}.

Two structural developments define the current state of play. First, the convergence path opened: Tether's USDT went live on Lightning via Taproot Assets in March 2026, explicitly marketed for AI-agent payments — meaning "stablecoins win" and "Bitcoin rails win" are no longer mutually exclusive outcomes^{[13][14]}. Second, the one channel where AI and Bitcoin already exchange contracted dollars is infrastructure, not payments: more than \$70 billion of AI and high-performance-computing contracts have been announced across the public Bitcoin mining sector, and the resulting capacity migration has pushed network hashrate into the longest sustained drawdown of the industrial mining era^{[10][11]}. The AI-treasury channel, by contrast, is confirmed empty: no AI company holds Bitcoin per filings, and the measurable corporate flow runs the other way — miners selling Bitcoin to fund AI conversions^{[11][15]}.

The Fund tracks five signposts on this theme (Exhibit 5). One is partially triggered. This note presents the analysis; it does not constitute investment advice or a recommendation regarding

any security or digital asset.

Three transmission channels

C1 — Payments. AI agents settle machine-to-machine commerce on Bitcoin or Lightning, creating fee demand, channel liquidity, and monetary-premium effects.

C2 — Treasury. AI companies or sovereigns accumulate Bitcoin as the machine economy's reserve asset.

C3 — Infrastructure. Bitcoin miners convert power, land, and cooling into AI compute — value accrues to converting equities and is neutral-to-negative for Bitcoin's own network fundamentals.

As of June 2026: C1 is pre-revenue, C2 is empty, and C3 carries all of the contracted dollars.

The forecasts — and why they overstate the settlement opportunity

Data: Juniper Research forecasts \$1.5 trillion of agentic commerce spend in 2030, from a 2025–26 base it characterizes as pilot deployments only (secondary coverage attributes a ~\$8 billion 2026 baseline — an implied ~187× ramp in four years)^[1]. McKinsey's October 2025 study sizes agentic commerce at \$3–5 trillion globally by 2030, including up to \$1 trillion of orchestrated US retail revenue^[2].

Assessment: McKinsey's operative verb is "orchestrate," not "settle." Commerce an agent arranges will mostly clear on cards and ACH behind the agent interface. The settlement-layer opportunity is the relevant pool for crypto rails, and at crypto take-rates of 0.1–1.0% (versus 200–300bps for cards), even \$3 trillion of agentic volume implies a \$3–30 billion annual settlement-revenue pool — material, but two orders of magnitude below the headline figures commonly quoted.

EXHIBIT 1 · THIRD-PARTY ESTIMATES AND METHODOLOGY ASSESSMENT

| SOURCE | FIGURE | METHOD | ASSESSMENT |
|--|----------------|---|---|
| Juniper Research (Apr 2026) ^[1] | \$1.5T in 2030 | Top-down adoption ramp from ~\$8B 2026 base | ~187× implied four-year ramp; no rail-share split; volume ≠ settlement revenue |
| McKinsey (Oct 2025) ^[2] | \$3–5T by 2030 | Top-down share of global commerce | "Orchestrated" ≠ settled — most volume clears on legacy rails behind the agent UX |
| Chainalysis (Jun 2026) ^[7] | >100M txns | Bottom-up on-chain count | ~Half artificial per Artemis ^[9] ; counts ≠ value (~\$50M cumulative ^[17]) |

The live rails: a stablecoin incumbent, a Bitcoin challenger, and a bridge

x402 — the incumbent

Data: x402 (Coinbase-developed, HTTP-402-based, USDC settlement) went from near zero in mid-2025 to over 100 million cumulative transactions by Q1 2026; by April 2026, coverage cites 165 million-plus transactions, roughly \$50 million of cumulative volume, and 480,000-plus transacting agents^{[7][17]}. Daily run-rate as of March 2026: ~131,000 transactions generating ~\$28,000 of volume, at an average payment of ~\$0.20^[8]. Artemis Analytics attributes roughly half of observed transactions to artificial activity — self-dealing and wash patterns^[9]; early growth was inflated by memecoin minting^[7]. Payment quality is nonetheless improving: \$1-plus payments rose from 49% to 95% of volume in early 2026, and tester-to-payer conversion improved four-fold in six months^{[7][17]}. The x402 Foundation now sits under the Linux Foundation (April 2026) with settlement on Base, Ethereum, Solana, and Stellar — and no Bitcoin or Lightning support announced^[6].

L402 / Lightning — the challenger

Data: Lightning Labs open-sourced its Lightning agent toolkit in February 2026: seven composable skills covering node operation, key-isolated remote signing, scoped spending credentials, paying and hosting L402-gated APIs, and node queries over MCP; the *Inget* client pays a Lightning invoice on any HTTP 402 challenge with no account, API key, or identity, and pairs with the Aperture reverse proxy to close a full agent-to-agent commerce loop^{[3][4]}. Coinbase launched its x402-based Agentic Wallets the same day^[17]. **Assessment:** the Bitcoin-native stack is technically complete and its identity-free settlement is a genuine differentiator — agents do not have government IDs or bank accounts — but sixteen weeks post-launch there is no published L402 volume data, a gap we re-confirmed by direct search in June 2026. Public Lightning channel-capacity data for 2025–26 is internally contradictory across sources (Exhibit 2) and is flagged for primary-source reconciliation.

Taproot Assets — the bridge

Data: USDT went live on Lightning via Taproot Assets around March 2026 on a production-grade protocol (auditable issuer supply, multi-channel payments), per Tether CEO confirmation — though with no published supply or volume figures, no major exchange distribution, and a thin wallet ecosystem^[13]. Tether and Bitfinex explicitly market the rail for AI-agent payments via L402^[14]. **Assessment:** this is the development that merges the scenarios — stablecoin-denominated agent payments settling over Bitcoin infrastructure. It is live, funded, promoted, and pre-volume. Notably, the two agent-payment ecosystems remain unmerged: the Bitcoin camp's standard is L402 while x402 excludes Bitcoin entirely.

EXHIBIT 2 · KEY METRICS

| METRIC | VALUE | AS OF | STATUS |
|--|--|-------------|--------------------------------|
| Agentic commerce forecast, 2030 (Juniper) ^[1] | \$1.5T (from ~\$8B 2026 base) | Apr 2026 | Verified (base single-sourced) |
| Agentic commerce forecast, 2030 (McKinsey) ^[2] | \$3–5T | Oct 2025 | Verified |
| x402 cumulative transactions / volume / agents ^[17] | 165M+ / ~\$50M / 480k+ | Apr 2026 | Verified |
| x402 daily throughput ^[8] | ~131k txns · ~\$28k · ~\$0.20 avg | Mar 2026 | Verified |
| x402 artificial-activity share (Artemis) ^[9] | ~50% of transactions | Mar 2026 | Verified |
| L402 / Lightning agent-payment volume ^{[3][4]} | No published data | Jun 2026 | Confirmed gap |
| Lightning public channel capacity ^[16] | 4,100–5,637 BTC reported, late '25–'26 | Jun 2026 | Contested |
| USDT on Lightning (Taproot Assets) ^[13] | Live; no volume/exchange data | Mar 2026 | Verified (single-source date) |
| Public-miner contracted AI/HPC revenue ^[11] | >\$70B cumulative | Q1 2026 | Verified |
| Bitcoin network hashrate, 30-day MA ^[10] | 964 EH/s · –13.2% vs peak · 187-day drawdown | 18 May 2026 | Verified, corroborated |
| AI/HPC equity value per MW ^[10] | ~3x since summer 2025 | 18 May 2026 | Verified |
| AI-company Bitcoin treasury holdings ^[15] | Zero confirmed | Jun 2026 | Verified (absence) |

The treasury channel is empty — and currently flows backward

Data: A June 2026 filings sweep found no AI company holding Bitcoin in corporate treasury. The closest adjacency is legacy: SpaceX — owner of xAI since February 2026 — holds 18,712 BTC (~\$1.29 billion) per its IPO filing, purchased in 2021 with no AI rationale stated^[15]. The US Strategic Bitcoin Reserve remains undisclosed in size, framed by officials entirely as custody and store-of-value — no official has invoked AI. The one measurable AI-related corporate Bitcoin

flow is miners selling treasury Bitcoin to fund data-center conversions^[11]. **Assessment:** we assign this channel no value in the base case and monitor for a first mover.

The infrastructure channel carries the contracted dollars

Data: More than \$70 billion of cumulative AI/HPC contracts have been announced across public Bitcoin miners, including CoreWeave–Core Scientific at \$10.2 billion over 12 years (a contractual relationship — the acquisition attempt failed in an October 2025 shareholder vote), TeraWulf at \$12.8 billion of contracted HPC revenue, and Hut 8's \$7 billion, 15-year River Bend lease, where 2026 coverage identifies Fluidstack and Anthropic as counterparties^{[11][12]}. The eleven largest US public miners shed ~7 EH/s of hashrate in a single quarter as power moved to hyperscalers on 10–15-year leases; the per-megawatt equity value of AI capacity has roughly tripled since summer 2025; and network hashrate sits 13.2% below its November 2025 peak in a 187-day drawdown — the longest of the industrial mining era, with a further ~9% difficulty decline estimated for mid-June 2026^[10].

Assessment: this is the only AI×Bitcoin channel with contracted dollars, and it cuts both ways — substantial value creation at converting operators against erosion of Bitcoin's security-budget inputs. Converting miners are progressively becoming AI-infrastructure businesses whose economics decouple from Bitcoin. The Anthropic/River Bend datapoint is the first direct AI-lab footprint on former Bitcoin-mining infrastructure; it is compute demand, not Bitcoin demand.

EXHIBIT 3 · US PUBLIC MINER HASHRATE, Q4 2025 → Q1 2026 (VANECK, COMPANY DISCLOSURES)

| COMPANY | Q4 2025 (EH/S) | Q1 2026 (EH/S) | CHANGE | STATED AI/HPC POSTURE |
|------------------------|----------------|----------------|------------------|---|
| IREN | 43.0 | 35.8 | -17% | Multi-year mining exit committed |
| Keel (KEEL) | 19.5 | 12.0 | -38% | Furthest along; mining capex halted |
| Cipher (CIFR) | 15.6 | 11.1 | -29% | Full exit by July 2027 (outside date) |
| TeraWulf (WULF) | 6.8 | 4.0 | -41% | Exit by ~April 2028 halving |
| Core Scientific (CORZ) | 10.9 | 9.7 | -11% | Near-pure-play AI by early 2027 |
| Riot (RIOT) | 34.0 | 42.3 | +8.3 EH/s | Partial AI pivot; still growing hashrate |
| Bitdeer (BTDR) | 43.2 | 50.2 | +7.0 EH/s | Partial AI pivot; still growing hashrate |
| MARA | 51.9 | 55.5 | +3.6 EH/s | Partial AI pivot; still growing hashrate |
| Top-11 total | 293.9 | 287.1 | -6.8 EH/s | Structural capacity migration ^[10] |

Scenario analysis

Probabilities are TON618 Capital analyst judgment as of 10 June 2026, not market-implied. Scenarios are analytical constructs for assessing the theme; they are not forecasts of, or guides to, any portfolio action.

EXHIBIT 4 · 2030 SCENARIOS, PROBABILITY-WEIGHTED

| SCENARIO | PROB. | KEY ASSUMPTIONS | 2030 OUTCOME FOR "AI ON BITCOIN" |
|-------------|-------|--|---|
| Bull | 15% | Agentic volume \geq \$3T; identity-free settlement proves decisive; Taproot-Assets stablecoins scale on Lightning | Bitcoin rails carry 5–10% of agentic settlement (\$150–300B); \$1.5–3B settlement-revenue pool. Caveat: if the bull case arrives via stablecoins-on-Bitcoin-rails, value accrues to Bitcoin <i>infrastructure</i> while the unit of account stays USD |
| Base | 55% | Agentic volume $<$ \$1T by 2030; stablecoins take \geq 90% of crypto-settled agent payments on x402-ecosystem chains; miner conversion continues | Bitcoin payments leg stays niche ($<$ \$50B); AI \times Bitcoin value accrues through the infrastructure channel |
| Bear | 30% | Agentic payment demand stays negligible (extrapolating current run-rates); rail ambiguity resolves negatively; hashrate drawdown extends | Payments \approx 0; treasury stays at zero; infrastructure conversion proceeds but fully decouples miners from Bitcoin; security-budget narrative erodes without an offsetting demand channel |

Weights unchanged from v1.0: this cycle's verification moved evidence roughly symmetrically (pro-Bitcoin-rails: USDT live on Lightning with explicit agent positioning; pro-stablecoin-incumbency: Linux Foundation institutionalization, zero treasury demand, no L402 volume).

Risk factors

EXHIBIT 5 · PRINCIPAL RISKS TO THE THEME

| RISK | LIKELIHOOD | MAGNITUDE | NOTE |
|---|------------|------------|---|
| Stablecoin rails win agent payments outright | High | High | Linux Foundation governance; Stripe/Shopify distribution ^[6] . Partial offset: Taproot - Assets bridge ^[13] |
| Agentic - commerce volumes disappoint vs. forecasts | Med - High | High | ~\$50M cumulative settled vs. \$1.5-5T forecasts ^{[8][17]} |
| Security - budget narrative damage from miner exodus | Medium | Medium | Record drawdown corroborated; further difficulty decline due June 2026 ^[10] |
| Regulatory scrutiny of identity - free agent payments | Medium | Med - High | L402's differentiator is also its AML surface |
| Adoption metrics inflated by artificial activity | High | Medium | ~50% of x402 transactions artificial ^[9] ; mitigant: payment quality improving ^[7] |
| Execution and counterparty concentration at converting miners | Medium | High | Fluidstack appears across multiple miner contracts ^{[11][12]} ; failed CoreWeave acquisition shows deal risk ^[12] |

What we are watching

EXHIBIT 6 · SIGNPOSTS, AS OF 10 JUNE 2026

| # | SIGNPOST | STATUS |
|----|--|--|
| S1 | Published L402/Lightning agent-payment volume exceeding \$1M/day | Not observed; data gap re-confirmed Jun 2026 |
| S2 | A major AI lab integrates Lightning/Bitcoin settlement in production | Not observed (River Bend involvement is compute, not payments) |
| S3 | x402 adds Bitcoin/Lightning settlement, or Taproot-Assets stablecoins reach scale on Lightning | Partially triggered — USDT live Mar 2026, pre-volume; x402 still excludes Bitcoin |
| S4 | Lightning public capacity inflects upward for two consecutive quarters | Indeterminate — capacity data contested; primary reconciliation in progress |
| S5 | Wash-adjusted crypto-settled agentic volume crosses \$10B annualized | Not observed; ~\$50M cumulative through Apr 2026 |

Sources

1. Juniper Research, "Agentic Commerce Set to Generate \$1.5 Trillion Globally by 2030," press release, 7 Apr 2026.
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5. Cloudflare, "x402: a new standard for internet-native payments," 23 Sep 2025.
6. x402 Foundation establishment under the Linux Foundation, 2 Apr 2026 (founding members incl. Stripe, Cloudflare, Shopify, Solana); x402.org ecosystem documentation.
7. Chainalysis, "x402 and agentic payments adoption," 3 Jun 2026.
8. CoinDesk, "Coinbase-Backed AI Payments Protocol Wants to Fix Micropayments, but Demand Is Just Not There Yet," 11 Mar 2026.
9. Artemis Analytics, x402 wash-activity analysis (30-day filter), 11 Mar 2026.
10. VanEck, "Bitcoin ChainCheck," data as of 18 May 2026; corroboration: CoinDesk/CoinShares, "Bitcoin Hashrate Posts First Quarterly Drop in Six Years," 30 Mar 2026.
11. CoinDesk, "Bitcoin Miners Are Becoming AI Companies — and Selling Their BTC to Fund the Transition" (CoinShares data), 27 Mar 2026.
12. Core Scientific Form 8-K, Q1 FY2026 (SEC EDGAR); Sherwood News on the CoreWeave shareholder vote, Oct 2025; TeraWulf Form 8-K, Q1 2026 (SEC EDGAR).

13. Tether, USDT on Lightning announcement, 30 Jan 2025; go-live coverage citing CEO confirmation, Mar 2026; Lightning Labs, Taproot Assets v0.7, 16 Dec 2025.
 14. Bitfinex, "Why Bitcoin and Stablecoins on Lightning Will Power the Next Phase of AI Agent Payments," 6 Mar 2026.
 15. CoinDesk, "SpaceX Holds 18,712 Bitcoin at Fair Value of \$1.29B, IPO Filing Shows," 20 May 2026; SEC EDGAR filings sweep (Nvidia FY2026 et al.), Jun 2026.
 16. CryptoSlate (Aug 2025), news.bitcoin.com, and BYDFi (May 2026) — Lightning capacity series (figures conflict; flagged contested).
 17. Coinbase, Agentic Wallets launch, 11 Feb 2026; ecosystem adoption trackers, Apr 2026.
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Use of AI & feedback. Artificial intelligence was used in the creation of this report; all methodology and data integrity have been reviewed and approved by a professional. Direct feedback to CIO Keyth Beck, keyth@ton618capital.com.

Version 1.1 · analyst: TON618 Thematic Research.

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