Can Two Layers Carry More Real Value Than Bitcoin's One? BTX's Reusable-Hardware Base and the EVX Finance Layer It Points At

Bitcoin secures sound money with a single, deliberately simple layer. BTX inherits that hard-money design but its matrix proof-of-work summons reusable, AI-capable hardware, and it points at a Layer-2, EVX, for institutional clearing and agent-native finance that settles onto a post-quantum base. We read the EVX whitepaper against the live base chain and label every capability by what it actually is today: live, testnet, or a design on paper. This is the honest version of 'more than one layer,' with the overclaims cut out.

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ABSTRACT

Bitcoin is one honest layer of sound money. BTX keeps the same hard-money rules but its proof-of-work builds reusable, AI-capable hardware, and it points at a Layer-2 (EVX) for programmable finance that settles onto a post-quantum base. We read the EVX whitepaper against the base chain and separate what is live from what is only designed.

BTX mines with matrix multiplication, keeps Bitcoin's 21 million coin cap, and points at a second layer for finance. Someone reading that quickly hears "a better Bitcoin," which is exactly the overclaim we want to avoid. This piece is our attempt to answer a sharper question honestly: can a two-layer design, a reusable-hardware base plus a programmable finance layer, add more real value than Bitcoin's single, deliberately simple layer, without pretending the base-chain mining already sells its compute or that the finance layer already exists?

We run easyBTX, a miner and node app for the BTX chain, so we have an interest in BTX doing well, and you should read us with that in mind. We are not the founder of BTX, and we are not the EVX team. EVX is a separate project with its own whitepaper (Version 1.0, June 2026, credited to the BTX Development Team). Everything we say about EVX below is traceable to that document, and where the paper is written in the present tense but only shows evidence of a test network, we say so. This is educational research, not financial advice.

The one-layer honesty about Bitcoin first

It is easy, and wrong, to make the case for two layers by strawmanning one. The concessions to Bitcoin come first, and they are real.

Bitcoin is one layer of sound money secured by SHA-256 running on single-purpose ASICs. That simplicity is a security feature, not a limitation someone forgot to fix. A minimal, single-purpose

work function is easier to reason about, easier to audit, and harder to get subtly wrong, and complexity is attack surface. Bitcoin is also far older, far more battle-tested, and secured by a vastly larger mining base with a much higher cost to rewrite history. And Bitcoin is not stuck on one layer either: Lightning is a live, programmable payment and scaling layer built on top of it. Anyone telling you "Bitcoin has no second layer" is simply wrong.

The claim in this piece is narrow on purpose. It is not that BTX is better money. BTX is a separate, much younger network that copies Bitcoin's economics and changes the cryptography underneath. The two things worth examining are what hardware each chain's security spending leaves behind, and what each chain's second-layer path looks like. On both of those, BTX made different bets from day one, and those bets are what a two-layer value argument actually rests on.

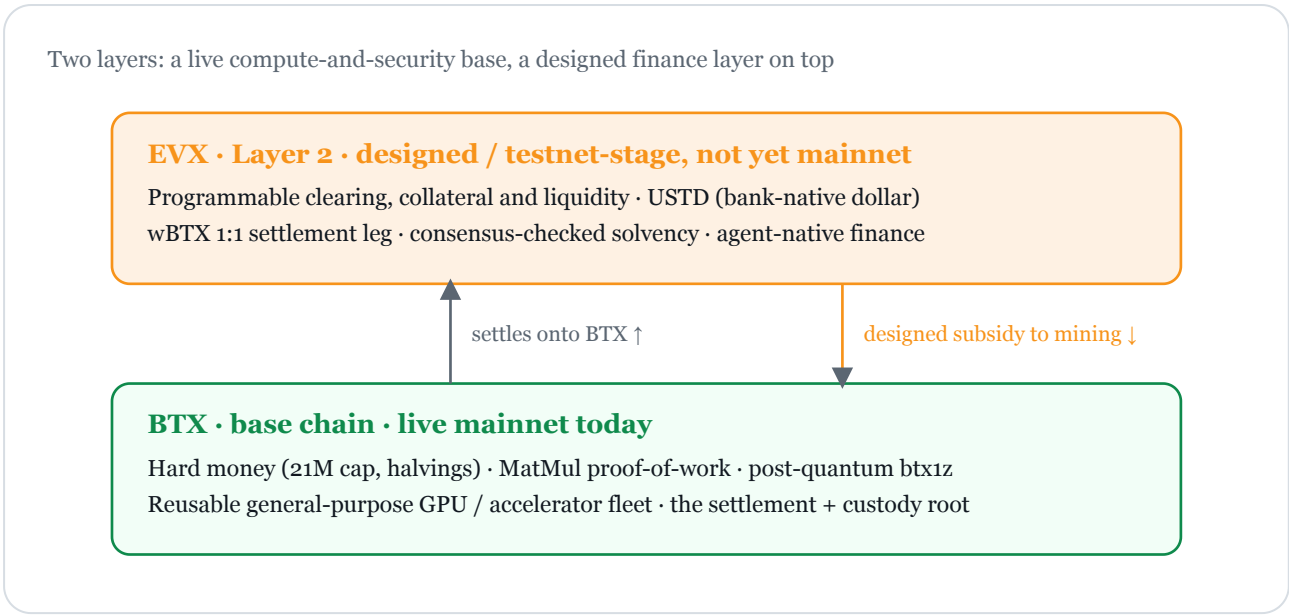
Layer one: the BTX base, in two paragraphs

We have written the base layer up in detail elsewhere, so this is a recap, not the main event. BTX is a post-quantum hard fork of Bitcoin Knots that keeps the parts that make Bitcoin hard money (a 21,000,000 cap, a 20 BTX subsidy halving every 525,000 blocks, mining-only issuance with no premine, and the value-conservation consensus rules) and changes essentially two things: the work function and the signature scheme, which in turn reshapes address and spend formats. It replaces SHA-256 with a dense matrix multiplication over a finite field (a 512 by 512 multiply, per the BTX spec and detailed in our useful-work piece), running at roughly 16.5 percent overhead above a bare multiply, per the spec, so most of the mining energy is genuine linear algebra rather than throwaway hashing. And it makes signatures post-quantum (ML-DSA and SLH-DSA), which is why addresses are pay-to-Merkle-root and begin with `btx1z`.

The consequence that matters for a two-layer argument is what that proof-of-work summons. SHA-256 pays people to buy hardware that does exactly one thing and, off the network, does nothing else. BTX's matrix proof-of-work pays people to buy and run the same general-purpose GPUs and accelerators machine learning runs on, hardware that can leave mining and run open models, agents, or numerical workloads. That fleet of general-purpose hardware is the base layer's real present asset. Whether the mined matrices are themselves delivered to anyone (they are not, today) is a separate question we treat carefully in our dedicated piece: does BTX's matrix proof-of-work do anything useful. The short version is that the fleet, an AI-agent admission-control system, and BTX as a payment and data rail are real today, while a market that runs outside jobs on the fleet is named by the spec as a v2 direction and is unbuilt. For what a base-layer node actually costs and what its operator gets, see why run a BTX node. We recap those here rather than repeat them.

The two-layer picture

Here is the shape of the argument before the details. The base layer is compute and security: hard money, plus a fleet of reusable accelerators. The second layer, EVX, is described in its whitepaper as programmable finance built on top, settling back down to BTX and wired so that its activity is meant to pay BTX's miners. Read the colors carefully: green is what is genuinely live today, orange is what is designed but not yet shipped.



Source: BTX's live base chain (MatMul proof-of-work, post-quantum spend paths) and the EVX & USTD Whitepaper v1.0 (June 2026). The base layer is operational today; the EVX layer, its tokenized dollar, its wBTX settlement leg and its miner-subsidy link are described as designed and exercised on a test network, not shipped to mainnet. Green marks live, orange marks designed-but-not-yet-built.

Layer two: what the EVX whitepaper actually describes

Now the depth of this piece, grounded entirely in the whitepaper. We label status throughout, because a BTX or EVX developer will read this against the real document, and overclaiming is the failure we most want to avoid.

What EVX is (design). The whitepaper defines EVX as an institutional clearing, collateral and liquidity layer, a programmable financial-market infrastructure whose native object is a collateralized obligation, run through one shared collateral ledger with isolated risk pools, single-slot deterministic finality, a neutral wBTX settlement leg, and programmable per-asset compliance. It frames itself against the two dominant crypto business models: general-purpose chains that charge a gas toll on every transaction, and stablecoin issuers that keep the float on reserves while pulling deposits out of the banking system. EVX's stated pitch is the inverse, "no settlement toll, no issuer float," designed instead to grow the value of BTX by channeling durable dollar liquidity onto the network. That is the paper's framing of its own purpose, not a measured result.

What it is built from (design). The paper is unusually explicit that EVX is an assembly of battle-tested open foundations, each named directly: the OP Stack (Optimism) for execution via op-geth, with every tie to Ethereum cut and BTX (as wBTX) made the unit of account; HotStuff-2 BFT for finality, stated as implemented from scratch with one-step final commits, no reorganization window, and a stated commit time of about one to two seconds; a Uniswap v4 style AMM engine for liquidity; the Aave lending model for credit; the NEAR intents model for settlement, with a hard rule that each batch must net to zero; and the Babylon vault construction for custody, rebuilt against BTX's own post-quantum-ready scripting. Crucially, the paper says "the same engine that runs the contracts also publishes the books," so solvency is checked as a condition of validity. All of this is architecture described in a document; the concrete deployment evidence the paper cites is a test network.

USTD, the dollar leg (design, legal status unresolved). USTD is described as a bank-native tokenized dollar: a common, multi-bank wrapper around rolling one-day certificates of deposit, where a bank issues USTD as its own short-maturity liability and the dollar "stays a deposit inside the regulated system." A single canonical digital object is presented to the market while the underlying exposure is allocated across eligible banks under explicit per-bank concentration limits, maturity limits, attestations and redemption rules. The one-day maturity is chosen to keep the instrument economically close to cash while remaining a genuine time deposit. On EVX, the paper says the entry credential is a USTD balance. Two honesty flags the paper itself raises: no bank has issued USTD (this is a proposed construction), and its legal characterization is explicitly unresolved and jurisdiction-dependent, something the paper says "must be set with counsel and regulators, not asserted." We do not resolve it either.

wBTX, the settlement leg (design and testnet). wBTX is defined as a fully-reserved, 1:1 BTX-backed unit that is simultaneously the native gas token, the ERC-20 representation, and the settlement and liquidation medium. The paper stresses there is deliberately no separate speculative network token, to avoid a reflexive asset whose price could feed back into the system's solvency. Minting happens by depositing real BTX into the EVX bridge reserve, and the paper says bringing BTX in is cryptographically verifiable by parsing BTX block headers, checking the proof-of-work (per the whitepaper, including a Freivalds verification of the matrix work) and proving inclusion, with the deposit worth zero collateral until it has enough confirmations. It is candid that taking BTX out "cannot be made trustless," offering instead a bonded, challengeable exit with queues, bonds, watchtowers and a challenge game, and it says the custody watchtower has executed a real seizure spend only "in testing." A consensus-level supply predicate is meant to make any block that would over-issue wBTX against reserves invalid. Treat all of this as designed and testnet-stage.

Consensus-enforced solvency (design). The paper's most distinctive claim is that solvency, margin integrity and oracle integrity are conditions of block validity, checked by every honest validator before it votes, so a proposal that would record bad debt without an exhausted waterfall, mint unbacked wBTX, or mark a position off a manipulated price cannot reach quorum. Its phrasing is that "'settled' and 'solvent' are the same event, checked every block, not reported after the fact." Mechanically this is carried by a FinancialStateRoot in the block header that is the Merkle parent of eight sub-roots (risk, account margin, product cells, collateral vault, liquidation queue, insurance fund, oracle, bridge), which together with the parent make nine roots every validator recomputes byte-identically. Risk is contained by partitioning: each product lives in a risk-isolated cell with hard caps and its own insurance, so a blow-up in one cell cannot drain the rest, and any party can trip a tripwire to quarantine a cell whose solvency invariant breaks. This is genuinely interesting design, and it is design: exercised on a test network at most.

The link that makes the two-layer claim more than marketing

The reason to bother pairing these two layers, rather than treating EVX as just another app chain, is a single wiring choice in the whitepaper, and it is worth stating precisely.

Validators are BTX miners (design). On EVX a validator "wears two hats at once," being both a BTX miner and a network validator. Every validator slot carries the same fixed bond, 1,050 BTX held

as wBTX, slashable for misbehavior, with no stake-weighting. The bond is only the ticket to enter; who actually holds one of the scarce slots (the active set is deliberately small, between 50 and 150 validators) is decided solely by contributed BTX proof-of-work, with the strongest miners taking the slots, re-formed each epoch. BTX holders may delegate BTX to fund a validator's bond for a pro-rata share of fees, but delegation funds the bond, never a vote or a slot. Each work-share is verified on-chain by EVX's BTX precompiles using a Freivalds check the paper states has error below 2 to the negative 62. Importantly, the paper is careful that proof-of-work decides only who validates and is never a safety or liveness dependency: if BTX mining were disrupted, the standing set keeps finalizing.

Why that matters, in the paper's own words. Fees accrue to the active validator set denominated in BTX, with nothing minted and nothing burned, distributed pro-rata to the verified BTX mining work each validator contributes. From that the whitepaper draws its central cross-layer thesis, and it uses the word "subsidy" directly: "EVX thus acts as a standing subsidy to BTX's security budget, the validators of the high-value layer are the miners of the base layer, and the better EVX pays them, the more hashpower they commit to BTX." It frames EVX as "a structural buyer of BTX security" and argues this answers the security-budget problem that shadows every proof-of-work chain as its block subsidy halves away. This is the crux of how a second layer could add value that pure base-layer money does not: activity on the finance layer is designed to convert into hashpower securing the base. We flag the obvious honesty point one more time. This is a designed incentive argument in a whitepaper, not a measured, operating outcome, because a live EVX validator set is not yet running.

Where AI sits across both layers

AI shows up on both layers, but at very different maturities, and lumping them together is exactly the overclaim to avoid.

Base layer, real today. Four AI-facing channels on BTX are live now, and we treat them in depth in the useful-work piece. The reusable GPU fleet that mining funds and keeps online is a present asset. The MatMul service-challenge system is a working AI-agent admission control: an API or agent gateway can require a fresh, chain-bound matrix challenge before an expensive route runs, issued via `getmatmulservicechallenge` and accepted once via `redeemmatmulserviceproof` (both per the BTX base-chain spec, not the EVX whitepaper), expensive to automate and cheap to verify. BTX is a payment rail agents can transact in. And BTX is a verifiable data source a model can query. The matrices in the challenge are seeded, not customer-supplied, so this gates access to AI rather than running models, and the mined product matrix is not delivered to anyone. A verifiable-compute market that runs real outside jobs on the fleet is named by the spec as a stated v2 direction and does not exist yet.

EVX layer, aspirational. The whitepaper's rationale leans heavily on autonomous AI agents as the arriving customer base for programmable finance. Its section heading is blunt: "the customer is becoming a machine." It cites (without our independently verifying it) a mid-2026 report claiming automated systems generate more than 57 percent of web requests, argues this is delegation rather than science fiction, and reasons that a software agent needs three things (a trustworthy dollar leg, a

neutral settlement leg, and real market infrastructure with hard finality) that it today reaches for a stablecoin to get. EVX's pitch is that a bank-native dollar (USTD) on real infrastructure (EVX) is the bank-grade alternative, and that the population of transacting agents will be far larger than the population of humans. Read this for what it is: a forward-looking argument in a whitepaper, running on a finance layer that is still pre-mainnet. It is a thesis about future demand, labeled aspirational, not a live product.

More value than Bitcoin's one layer? The honest version

The structural argument, stated without hype, is this. Start from the same hard-money base, Bitcoin's cap and halving schedule. Change the proof-of-work so the security spend builds reusable, AI-capable hardware in many hands instead of hashing-only ASICs. Add post-quantum addresses from genesis. Then point at a second layer, EVX, designed for programmable clearing, a bank-native tokenized dollar, and agent-native finance, and wire that layer so its activity is meant to pay the base chain's miners, turning the finance layer into a structural buyer of base-layer security. If all of that ships and works, it is a plausible way for two layers to carry more real value than one, because the pieces reinforce each other rather than just stacking.

But "if all of that ships and works" is carrying most of the sentence, and honesty requires spelling out which side of the line each piece is on. Live today: the BTX base chain, its hard money, its post-quantum addresses, and the reusable GPU fleet, along with the base layer's AI-agent admission control and payment and data rails. Designed but not yet shipped, per the whitepaper's own tells: EVX as a running network, USTD as a bank-issued instrument (with its legal status explicitly unresolved), wBTX and its bridge in production, the 50-to-150 validator set and the 1,050 BTX bond mechanism, consensus-enforced solvency and the FinancialStateRoot, and the "subsidy to BTX security" as a measured effect rather than a design claim. The whitepaper is dated June 2026 and gives no EVX mainnet date, so we do not attribute one. Anyone who tells you the finance layer already pays miners today is describing the design as if it were the deployment.

None of this is a price claim and none of it is advice. It is a structural argument with a clear seam down the middle between what exists and what is drawn on paper. We think the honest way to hold it is: the base layer's value is real and measurable now, the two-layer value is a credible design pointed at by a serious whitepaper, and the distance between them is exactly the roadmap.

The bottom line

Bitcoin's one layer is sound money on deliberately simple, single-purpose hardware, and that simplicity plus its age and depth are real advantages that a younger chain does not get to wave away. BTX makes a different bet: keep the hard-money rules, but spend the security budget on reusable general-purpose compute, ship post-quantum addresses from day one, and point at a second layer for programmable, agent-native finance that is designed to pay value back into base-layer mining. Today the base layer of that bet is live and the fleet it summons is a present asset. The finance layer, EVX, is a detailed whitepaper and a test network, not a mainnet, and its tokenized dollar, its

settlement leg, its solvency machinery and its miner subsidy are designs we can read but not yet measure.

For an easyBTX user the practical read is modest. If you mine, you already own a slice of the general-purpose fleet EVX's design would draw its validators from, so you are early to the exact hardware the finance layer is meant to reward. If you run a node, you hold an independently verified copy of the base both layers settle against. Neither is a promise. We are an independent participant in this ecosystem, not the founder of BTX and not the EVX team, and we will keep reporting the seam between what is built and what is only designed, including if the second layer stalls. That seam, honestly drawn, is the whole story.

Postscript added 22 August 2026
Published 14 July 2026. One factual pillar of the base-layer section has since been replaced, and one thing in this article should not be read as current.

The proof of work described here no longer runs. This article describes BTX's work function as "a 512 by 512 multiply", which was MatMul v3. On 10 August 2026, at block 185,000, BTX activated MatMul v4.7. One mining attempt is no longer millions of cheap 512 by 512 multiplies per second. It is a single deterministic inference episode on 4,096-wide matrices, and mining rates are now counted in episodes per minute rather than nonces per second. Our fork write-up has the detail: what MatMul v4.7 actually does.

The 16.5 percent overhead figure is a v3 number. It came from the MatMul v3 specification. We have not re-measured it against v4.7 and are not going to carry it forward as if we had.

The structural argument survives the change, and arguably gets stronger. The whole two-layer case here rests on BTX's security spend buying general-purpose, AI-capable hardware instead of single-purpose hashing chips. MatMul v4.7 is dense integer linear algebra that maps onto the same tensor cores, so the "reusable fleet" claim did not depend on the old dimensions. What did change is the hardware floor, which rose. We are deliberately not stating a minimum NVIDIA generation, because the sources we can check disagree with each other and we have not settled it.

What we did not check, and will not imply we did. We have no new evidence about EVX itself since publication: nothing about a mainnet, USTD's legal status, wBTX and its bridge, the validator set and bond, the FinancialStateRoot, or any measured subsidy flowing to BTX miners. Every live-versus-designed label in this article is accurate as of 14 July 2026 and should not be read as a current EVX status report. If any of those pieces has shipped since, we have not verified it and this postscript is not evidence either way.

Frequently asked questions

What is the two-layer story in one sentence?

BTX is a base chain that keeps Bitcoin's hard-money rules (21 million cap, halvings, mining-only issuance) but replaces SHA-256 with a matrix-multiplication proof-of-work that summons reusable, general-purpose GPUs instead of single-purpose hashing ASICs, and EVX is a separate, still-pre-

mainnet Layer-2 described in its own whitepaper as a programmable clearing, collateral and settlement layer that settles onto BTX. The honest claim is structural, not a price forecast: the same hard-money base plus reusable hardware plus a designed finance layer that is meant to pay value back into BTX security. As of 2026 the base chain is live and most of EVX is testnet-stage or design on paper.

Does this mean BTX is 'better than Bitcoin'?

No, and we are careful not to say that. Bitcoin's simplicity is a genuine security virtue: a minimal, single-purpose work function is easier to reason about and harder to get subtly wrong, and Bitcoin is far older, far more battle-tested, and secured by a much larger mining base. Bitcoin also already has Layer-2s such as Lightning, so 'Bitcoin has no second layer' would be false. The defensible, narrow claim is only this: BTX's proof-of-work directs the same security spending toward reusable hardware that can also run AI work, and BTX chose post-quantum addresses and a programmable-finance L2 path from day one. That is a design bet, not a proven win.

What is EVX, exactly, per its whitepaper?

The EVX whitepaper (Version 1.0, June 2026, credited to the BTX Development Team) describes EVX as an institutional clearing, collateral and liquidity layer, a programmable financial-market infrastructure that settles onto the BTX chain. Its user-facing dollar is USTD, described as a bank-native tokenized dollar, and its neutral settlement unit is wBTX, a 1:1 BTX-backed token. The paper frames its own economics as taking 'no settlement toll, no issuer float,' aiming to grow the value of BTX rather than extract fees or float. Every EVX detail in our article is traceable to that whitepaper, and we flag that the paper is written in the present tense while the concrete deployment evidence it cites is a test network.

How would EVX activity flow value back to BTX miners?

The whitepaper's design ties them together (nothing here is live yet): an EVX validator 'wears two hats at once,' being both a BTX miner and a network validator. Every validator slot would carry a fixed bond of 1,050 BTX (held as wBTX), and which candidates actually hold the scarce 50-to-150 validator slots would be decided by contributed BTX proof-of-work, re-formed each epoch. Fees would accrue to the active validator set denominated in BTX, distributed pro-rata to the verified BTX mining work each contributes. The paper calls this 'a standing subsidy to BTX's security budget,' arguing the better EVX pays, the more hashpower flows to securing BTX. Important caveat: this is a designed incentive mechanism in the whitepaper, not a measured, operating outcome, since a live EVX validator set is not yet running.

Is USTD a real, bank-issued dollar I can hold today?

No. The whitepaper describes USTD as a bank-native tokenized dollar, a multi-bank wrapper around rolling one-day certificates of deposit where the dollar 'never leaves the bank,' but there is no evidence any bank has issued USTD. The construction, the participating banks, and the per-bank concentration limits are proposed, not operating. The paper is also candid that USTD's legal characterization is unresolved and depends on jurisdiction: whether a unit is a deposit, a CD, a security, a payment stablecoin, or a contractual claim 'must be set with counsel and regulators, not

asserted.' We report USTD as a design, and we do not resolve its legal status because the whitepaper itself does not.

What is wBTX and is it live?

wBTX is defined in the whitepaper as a fully-reserved, 1:1 BTX-backed unit that serves as EVX's neutral settlement leg, its gas token, and its liquidation medium, with a hard reserve rule that BTX held in the bridge must always at least cover outstanding wBTX. Bringing BTX in (a deposit) is described as cryptographically verifiable by checking BTX headers and proof-of-work; taking BTX out is stated plainly by the paper to be something that 'cannot be made trustless,' offering instead a bonded, challengeable exit. It is not live in production: the custody watchtower has executed a seizure spend only 'in testing,' per the paper. We treat wBTX, its bridge, and its reserve invariant as designed and testnet-stage, not shipped.

Where does AI fit across the two layers?

On the base layer, four AI-facing things are real today: the fleet of general-purpose GPUs that mining funds and keeps online, the MatMul service-challenge system that acts as an AI-agent admission control (issued via getmatmulservicechallenge and redeemed via redeemmatmulserviceproof, per the BTX base-chain spec), BTX as a payment rail agents can transact in, and BTX as a verifiable data source a model can query. A verifiable-compute market that runs outside jobs on that fleet is named by the spec as a v2 direction and is unbuilt. On the EVX layer, the whitepaper frames autonomous AI agents as the arriving customer base for programmable clearing and a bank-native dollar, arguing the population of transacting agents will be far larger than the population of humans. That agentic-AI thesis is a forward-looking argument in a whitepaper, running on a layer that is still pre-mainnet, so we label it aspirational.

What does the two-layer story mean for an easyBTX user today?

Kept modest and honest: if you mine BTX, you already own a slice of the general-purpose GPU fleet that EVX's design would draw its validators from, so you are early to the exact hardware the finance layer is meant to reward. If you run a node, you hold an independently verified copy of the base chain that both layers settle against, which is the ground truth these systems are ultimately checked on. Neither of these is a promise of return. EVX is a separate project that is not yet live, its rewards are designed and unproven, and nothing here is investment advice. The concrete, present value is the same as in our node and useful-work pieces: reusable hardware in your hands, and your own verified copy of the chain.
