



I[⚡]VM

International Bitcoin Virtual Machine

A Next-Generation Layer 2 Scaling
Solution for Bitcoin

The IBVM Advantage

IBVM CHAIN is an innovative Layer 2 rollup and scaling solution built on Bitcoin, designed to enhance Bitcoin's efficiency, scalability, and usability while maintaining its base-layer security. By integrating zk-Rollups, UTXO Partitioning, and Ethereum compatibility, IBVM enables fast, low-cost, and decentralized transactions while introducing smart contract functionality to Bitcoin. IBVM preserves Bitcoin's security and enables programmable transactions without modifying Bitcoin's core rules.

We have integrated several key functionalities— like decentralized escrow, lending services, and a unified swap platform, which positions IBVM as an attractive infrastructure for DeFi and mainstream financial applications. This whitepaper outlines IBVM CHAIN's technical architecture, economic model, tokenomics, and roadmap, offering a clear vision for investors seeking exposure to next-generation blockchain scalability.

Key Features: –

- ▶ IBVM CHAIN scales Bitcoin via ZK-Rollups
- ▶ BitVM based programmability to create a robust ecosystem for larger adaptability
- ▶ Inherent sidechain, bridging BTC to IBVM, targeting thousands of TPS with low fees
- ▶ Ready to use solutions like Decentralized Escrow
- ▶ Decentralized lending through BTC rollups
- ▶ Cross chain swaps and interoperability between blockchains

Problem Statement

1. Ethereum Congestion, Security Risks, and Market Inefficiencies

Ethereum, though a leading smart contract platform, struggles with congestion, high gas fees, and security risks. An estimated \$600 million to \$1 trillion is lost annually to hacks, exploits, and smart contract flaws, hindering institutional and governmental adoption.

2. Governmental and Enterprise Adoption of Bitcoin: The Need for Scalability and Energy Efficiency

As governments increasingly adopt Bitcoin as a reserve asset and financial instrument, enterprises must integrate Bitcoin-based infrastructure to remain competitive. However, Bitcoin's base layer lacks the required transaction speed and programmability for large-scale enterprise use.

3. Custodian Sidechains and Centralized Trust Risks

A major challenge in institutional blockchain adoption is the reliance on custodian-based sidechains, where funds are held in centralized entities that introduce counterparty risks. These structures create single points of failure, regulatory uncertainties, and potential loss of funds, as seen in several high-profile collapses of centralized custodians.

4. Growing Market for DePIN (Decentralized Physical Infrastructure Networks)

While DePIN is mentioned in the latter part of the document, it should be emphasized as a core pillar of IBVM's strategy. The DePIN market is rapidly growing, with decentralized computing, storage, and AI processing becoming essential components of the digital economy.

5. AI Job Displacement and the Need for Passive Income Incentives

By 2030, AI may displace 20-30% of white-collar jobs, creating a major socioeconomic challenge. IBVM Chain offers a passive income model where users earn rewards by contributing computational power from their devices, ensuring the economic benefits of blockchain and AI are widely distributed.

Conclusion: Why We Are Building IBVM Chain

The IBVM Chain is designed to solve the scalability, security, and adoption challenges of blockchain while creating a sustainable, decentralized computing economy. By leveraging Bitcoin's security, integrating DePIN, and enabling public participation in decentralized computing, IBVM Chain ensures a future-proof financial and infrastructure solution that benefits enterprises, governments, and individual users alike.

Market Opportunity

Market Need

According to Michael Saylor, founder and chairman of MicroStrategy, Bitcoin represents only a tiny fraction, **roughly \$1 trillion or 0.1%** of the estimated global wealth of around \$900 trillion, implying a vast growth potential for Bitcoin and other digital assets.

Bitcoin layer 2 Scaling solutions

Projected to surpass **\$47 billion** by 2030 as Bitcoin-based DeFi and smart contracts gain adoption.

Decentralised Escrow Solutions

Estimated to grow from **\$2.4 billion** in 2024 to \$17.91 billion by 2033 at a CAGR of 20%.

Bitcoin based lending solutions

Projected to surpass **\$47 billion** by 2030 as Bitcoin-based DeFi and smart contracts gain adoption

The increasing demand for decentralized financial applications (DeFi), and high-frequency payment services necessitates a solution that can process thousands of transactions per second (TPS) at a fraction of traditional fees. BTC Layer 2 solutions are expected to handle more than 25% of the transactions on the BTC chain, as compared to roughly 1-2% currently, implying huge potential for the layer 2 BTC solutions. IBVM CHAIN not only meets these needs but also opens new possibilities for institutional applications such as trustless escrow and decentralized lending.

Our Solution: Statistically Explained

Bitcoin's unparalleled security has come at the cost of scalability. With growing network congestion and escalating transaction fees, a scalable solution is imperative. IBVM CHAIN addresses these challenges by migrating transaction processing to a secure, efficient Layer 2 environment, by aggregating transactions off-chain and verifying them with succinct zero-knowledge proofs on-chain, IBVM CHAIN dramatically increases throughput while preserving the security of Bitcoin's Layer 1. IBVM provides a holistic solution for BTC based transactions, and uses BitVM for scalability and greater adoption.

The current BTC blockchain on an average, consumes **438GWh** per day.

$$438 \times 1,000,000 = 438,000,000 \text{ kWh}$$

To put this into context, this is equivalent of running power required for run **21.9Million households** per day, as

Average Consumption per household = 20 kWh per Day

Households that can be supported from 438 Gwh per day

$$\frac{\text{Avg BTC consumption}}{\text{Avg consumption per household}} = \frac{438,000,000 \text{ kWh}}{20 \text{ kWh}} = 21,900,000$$

Our IBVM solution saves 99.5% of power consumption, meaning that for the same number of Bitcoin transactions, IBVM's Rollup technology will consume just **2.19 GWh** per day or **438.51 Gwh** less, which equates to an amount of power to run **21.8 million** households per day.

Assuming the cost of electricity is USD 0.25 per KWh, this equates to saving consumers approx. **\$109M** per day, or USD **39.8 Billion** per year.

Functional Capabilities

1. Decentralized Applications (dApps)

Fully decentralized Escrow Automation on BTC

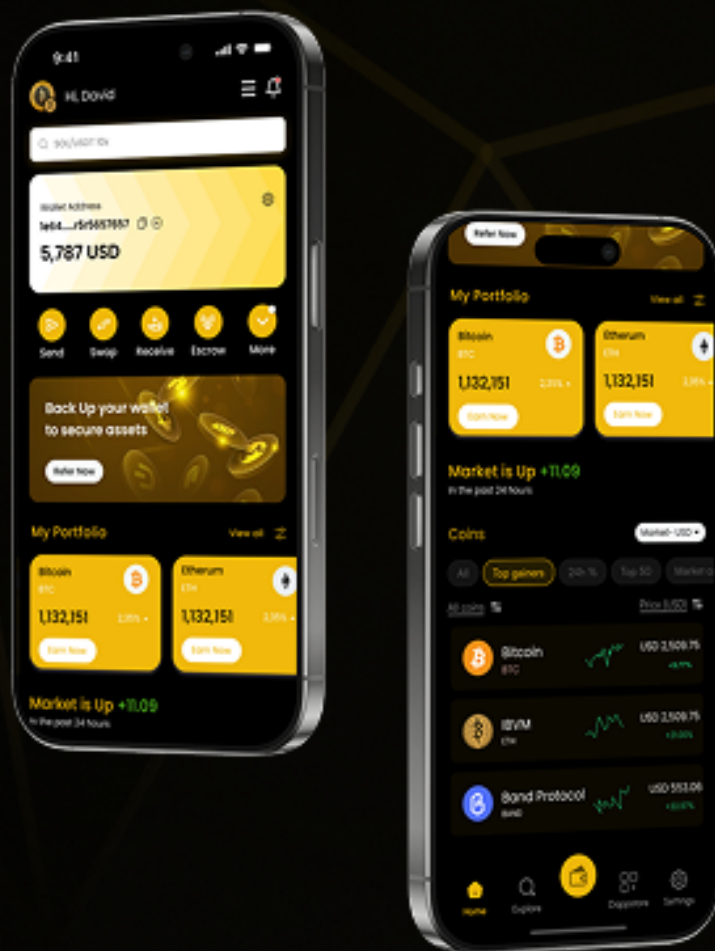
Traditional escrow services rely on centralized entities, increasing costs and risks. With our fully decentralised escrow services, financial institutions can now easily trade amongst themselves, without having to worry about the security of their large ticket funds.

How It Works:

- ▶ BTC is locked in our layer 2 escrow contract using hashlocks and timelocks
- ▶ Off-chain computation verifies contract conditions
- ▶ On-chain proofs ensure secured settlement
- ▶ IBVM acts as a Layer 2 adjudicator for faster throughput
- ▶ Smart contracts on IBVM provide additional flexibility.



2. IBVM's Universal Wallet

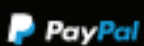


- ✦ Manage multiple crypto wallets with IBVM App.
- ✦ Exchange Crypto Instantly
- ✦ Inbuilt with Multi chain/cryptocurrency
- ✦ Easily create, import & connect wallets
- ✦ Get all transaction history within the app

Download on the
App Store

GET IT ON
Google Play

Explore Crypto World



stripe



VISA

AMERICAN
EXPRESS

MoneyGram

Skrill

- ⚡ Zero Fee Gas (Peer to Peer Mechanism)
- ⚡ Advance Portfolio Tracking
- ⚡ Premium Support (Live chat or priority email)
- ⚡ Enhanced Security (Auto backups, anti-phishing tools)
- ⚡ Fiat On-ramp (Fee Discounts or Early Access)
- ⚡ User-Friendly Interface: Provide an intuitive interface for users to create and manage tokens.



3. Real Estate Tokenization Platform(REM)



- ✦ Tokenization Platform: Allow users to tokenize real estate assets, dividing ownership into digital tokens
- ✦ Fractional Ownership: Enable multiple investors to co-own a property, with each owning a fraction of the asset.
- ✦ Digital Wallet Integration: Users can store, send, and receive tokens securely.
- ✦ Property Listing: List properties available for tokenization and fractional ownership.
- ✦ Investor Dashboard: Provide investors with a centralized platform to track their investments.
- ✦ User Interface: Design an intuitive and user-friendly interface for investors and property owners.
- ✦ Automated Dividend Distribution: Distribute dividends to token holders automatically.



4. Instant Token Deployer (Tminter)



- ✦ **Token Creation:** Allow users to create custom tokens with specific properties (e.g., name, symbol, supply, decimals).
- ✦ **Smart Contract Integration:** Integrate with smart contracts to enable automated token functionality.
- ✦ **Token Standards:** Support popular token standards (e.g., ERC-20, BEP-20, ECR 721 etc).
- ✦ **Customizable Tokenomics:** Enable users to define tokenomics (e.g., supply, distribution, burning mechanisms).
- ✦ **Token Deployment:** Deploy tokens on various blockchain networks (e.g., Ethereum, Binance Smart Chain, Solana).
- ✦ **User-Friendly Interface:** Provide an intuitive interface for users to create and manage tokens.
- ✦ **Security Measures:** Implement robust security measures to protect user assets and prevent token tampering.

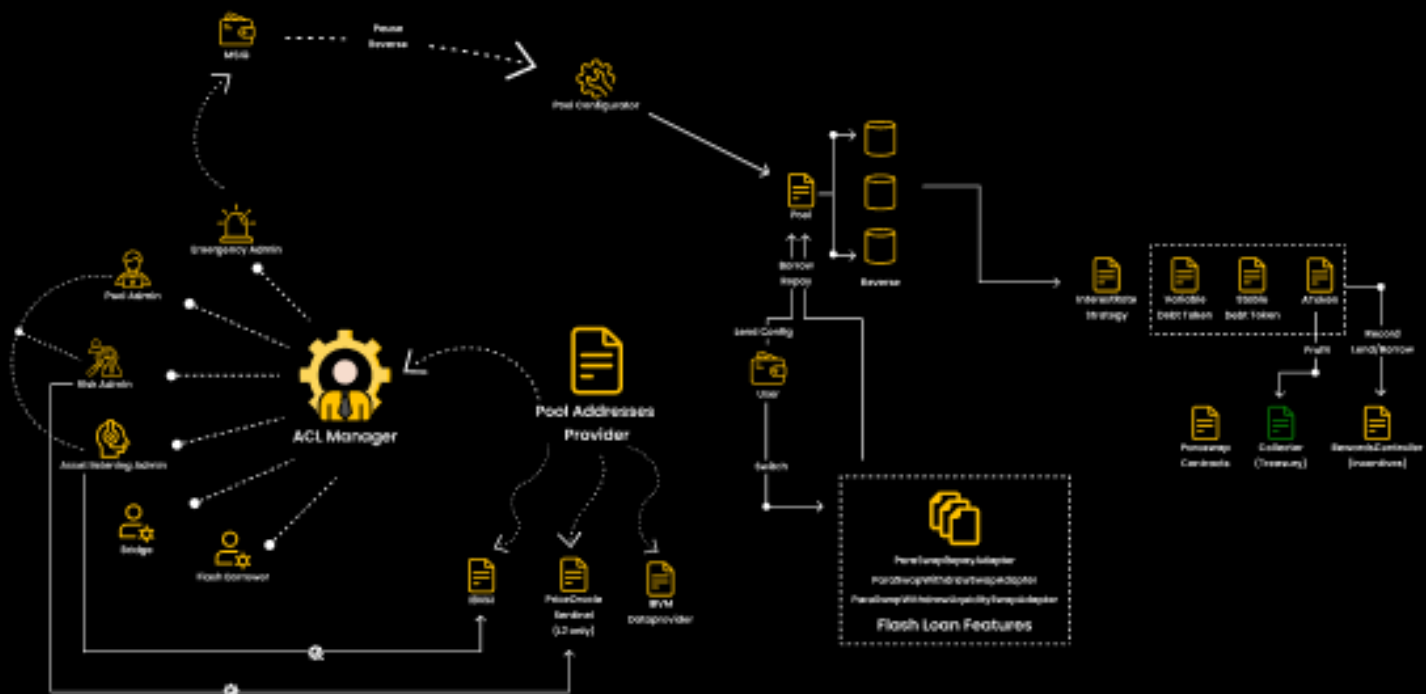
5. DeFi and Lending solutions

Current BTC DeFi platforms require wrapped BTC (wBTC, tBTC), which exposes them to the inherent centralization risks. Our solution will be actual layer 2 BTC chain, which will enable us to allow BTC lending without wrapping and without compromising decentralization and BTC chain's robust security features.

How It Works:

- ▶ BTC holders lock BTC in a lending contract
- ▶ Borrowers deposit collateral on IBVM
- ▶ Loan repayments and liquidations are fully decentralized
- ▶ Smart contracts manage interest rates, repayments, and collateralization
- ▶ Zero-knowledge proofs on STARKs ensures confidential loan terms
- ▶ Institutional lending is built using this framework

loan approval process through smart contracts



Interoperability and Cross Layer Transactions

Bitcoin's current cross-chain bridges rely on custodians, creating inherent risks in the process. IBVM solution enables a BTC-native bridge without centralized intermediaries. This facilitates decentralized asset swaps across multiple chains without reliance on external bridges.

● Deposit/Withdraw -

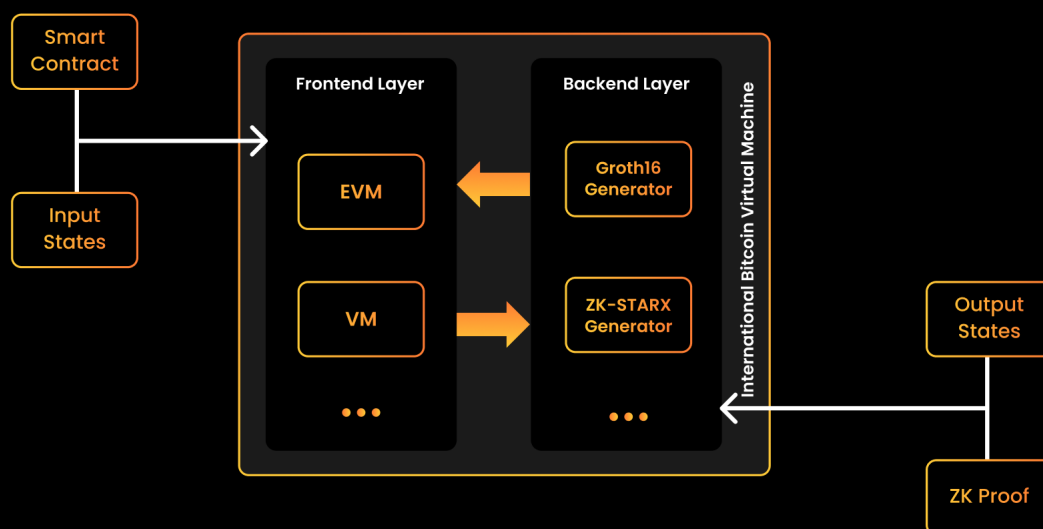
IBVM CHAIN supports seamless fund movements between Bitcoin's Layer 1 and the Layer 2 network. Deposits are verified on Bitcoin, while withdrawals require confirmation via ZK proofs.

● Interoperability -

Users can perform transfers and swaps within the IBVM CHAIN ecosystem, including support for Bitcoin, Ethereum and USDT tokens. Multi-chain interoperability is further enabled via cross-rollup mechanisms for All in one Swap which is ready to explore.

How It Works:

- ▶ Users lock BTC in a IBVM governed smart contract
- ▶ BTC-backed coins are minted on IBVM
- ▶ BTC is redeemed without custodial risk
- ▶ Eliminates the need for centralized BTC bridges
- ▶ Ensures Bitcoin-backed assets remain secure and decentralized
- ▶ Enhances IBVM role as a Bitcoin-native DeFi hub.



IBVM Features Comparison

Features	Bitcoin BTC	Ethereum ETH	Liquid LBTC	IBVM
Average confirmation time	10 min	15 sec (Ghost)	60 sec	2 sec
Security threshold (due to selfish mining or collusion)	-30%	Lower than 30%	50 %	50%
Turing complete smart-contracts	No	Yes	No	Yes
Add value to Bitcoin	-	No	Yes	Yes
Integration with Bitcoin	-	No	Sidechain	Layer2
SPV clients	Yes	Yes	Yes	Yes
Hardware wallet integration	Yes	Yes	No	Yes
Confidential transactions	No	Via contract	Yes	Via contract
Scalability (tps)	3 (6 with sedwit)	Unbounded Currently 15	3(6 with sedwit)	Unbounded 35
Blockchain size	200GB	>1.5 TB	~300 MB	~11GB
Token peg security	-	-	Federation	Federation
Token	BTC	ETH	LBTC	BTC



Tokenomics and IBVM Token Utility

Supply & Allocation

- Name :
IBVM (International Bitcoin Virtual Machine)
- Ticker : **IBVM**
- Total Supply : **1,000,000,000 IBVM (1 Billion IBVM)**
- Decimals : 18



All figures in Millions of IBVM

Private Sales and Early Investors	90	9.0%
Public Sales	300	30.0%
Liquidity and Operational	170	17.0%
Community and Promotion	70	7.0%
Strategic Partners	50	5.0%
Legal Expenses	30	3.0%
Product Creation	90	9.0%
Mining and Future Expansion	200	20.0%
Total	1,000	100.0%

Go-To-Market (GTM) Strategy

1. Target Audience



Bitcoin & Crypto users

Existing Bitcoin holders and users seeking scalable, cost-effective transactions.



Developers

Builders interested in creating applications on Bitcoin Layer 2.



Institutional investors

Financial institutions and investment firms looking for scalable Bitcoin solutions.

2. Channels



Social Media Marketing

Leverage social media platforms for community engagement



Incentivized programs

Airdrop campaign and other rewards



Content marketing

Create informative blog posts, videos, and guides.



Paid advertising

Utilize targeted online ads to reach broader audiences.



PR and media outreach

Craft press releases and pitch stories to media outlets.



Institutional Onboarding

Tie-ups with other Exchanges and FIs



Partnerships

Form alliances with complementary projects and businesses.



Influencer partnerships

Collaborate with crypto influencers and thought leaders



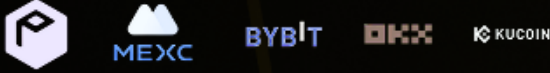
Developer support

Provide resources, documentation, and support for developers.

Exchange Listing and Liquidity

1. Exchange listing:

List on major cryptocurrency exchanges. Target 3-5 at TGE



These are just tentative representations, might change as the date gets closer.

2. Liquidity provision

Provide liquidity through market makers and liquidity pools.

Funds raised

We have raised **\$21 Million** usd till now



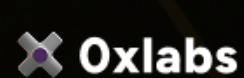
Quest GLT



Pegasus Ventures



Rollman



Oxlabs

Budget Allocation for following Activities



Influencer
partnerships



Incentivized
programs



Content
marketing



PR and media
outreach



Developer
support



Paid advertising



Social media



Partnerships

Roadmap & Future Developments



Phase 1(Q4 2024 – Q2 2025)

:Research & Prototyping

- Develop a robust method to launch BTC layer 2
- Develop a IBVM which acts a testnet for layer 2 chain
- Develop Escrow solutions
- Develop DeFi (lending based Solutions architecture
- Develop Swap and cross chain features
- Develop Staking and reward mechanism
- Develop ZK rollup architecture and check compressions
- Deployment of core functionalities such as deposit, withdrawal, and transfer.
- Prepare marketing collaterals and strategic tie-ups



Phase 3 (Q3 2025) :Mainnet Launch & Ecosystem Expansion

- Transition to the mainnet with integrated DApp support
- Rollout of decentralized swap, and lending functionalities.
- Fully optimized layer 2 with all Dapps – Lending, Escrow, cross chain bridges and enables community to build their tokens / dapps on our layer 2 chain
- Enable cross-rollup operations and multi-chain interoperability
- Public Launch with Liquidity pools and multi exchange listings



Phase 2 (Q2 2025) :Testnet & Early Integration

- Launch of a robust testnet for initial validation.
- Deployment of core functionalities such as deposit, withdrawal, and transfer
- Integrate the Phase 1 products and solution to the layer 2 chain
- Prepare for the launch event



Phase 4 (Q4 2025 and beyond) :Expansion and Enterprise Solutions

- Partnerships with institutional platforms and further scaling solutions
- Subscriptions and premium APIs to cater to enterprise's specific solutions
- Introduction to DePIN and Mining logics

Strategic Partners

We collaborate with industry leaders and trusted organizations to deliver innovative solutions and exceptional services. Our partners share our vision for quality, reliability, and customer satisfaction, helping us create a strong network that drives success. Together, we strive to bring the best to our clients and communities.



Quest GLT



Pegasus Ventures



Rollman



Oxlabs

Disclaimer

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Conclusion

IBVM CHAIN represents a significant technological leap in scaling Bitcoin without sacrificing security. By leveraging advanced zero-knowledge proof technology and a robust economic model, it creates a highly efficient and secure platform for decentralized financial applications. We invite investors and community members to join us in shaping the future of blockchain scalability.

For further inquiries, partnership opportunities, or additional details, please contact us at [\[info@ibvm.io\]](mailto:info@ibvm.io)

Thank you for considering IBVM CHAIN as your next investment in blockchain innovation.

