Liquidity Bridge
Xchange

WHITE PAPER

LINK TO THE FUTURE

"Smart routing, ultra-fast cross-chain, redefining liquidity"

2025

Version | 1.0

WEBSITE

lbxproject.site

Preface

Innovation-driven

LBX's core competitiveness stems from our groundbreaking technological innovations. By combining an AI pricing engine with intelligent routing algorithms, we analyze network-wide liquidity in real time and automatically select the optimal path for each transaction.

Our cross-chain bridging technology utilizes cutting-edge cryptographic techniques such as zero-knowledge proofs to ensure security while significantly improving transaction speeds. Most importantly, LBX remains committed to the principle of decentralization, giving users true sovereignty over their assets.

Co-building an ecosystem

We are building an open, transparent, and inclusive ecosystem, welcoming developers, users, institutions, and other stakeholders.

Here, everyone can contribute to the future of cross-chain finance while sharing in the benefits of its development.

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1. PROJECT OVERVIEW

1.1 Project Background and Industry Pain Points

In today's rapidly evolving multi-chain ecosystem, digital asset users face three core challenges:

Liquidity fragmentation	By 2025, over 65% of DeFi liquidity will be scattered across 12 different blockchains, resulting in inefficient user transactions.
Inefficient cross-chain transactions	The average confirmation time of existing cross-chain solutions is as long as 2-5 minutes, which seriously affects the user experience.
Prominent security risks	In 2024, cross-chain bridge-related security incidents caused losses of more than US$1.8 billion, exposing major security flaws in current solutions.

1.2 LBX Solution

LBX provides a comprehensive cross-chain liquidity solution through innovative technical architecture

Technical pillars:

- Based on LayerZero's improved cross-chain communication protocol, it achieves millisecond-level state verification.
- A lightweight verification system built using zk-STARKs technology reduces verification costs by 70%.
- A dynamic liquidity routing algorithm supports real-time optimal path selection.

Core features:

- One-click exchange of multi-chain assets
- Smart gas fee optimization
- Cross-chain liquidity aggregation
- Decentralized governance framework

1. PROJECT OVERVIEW

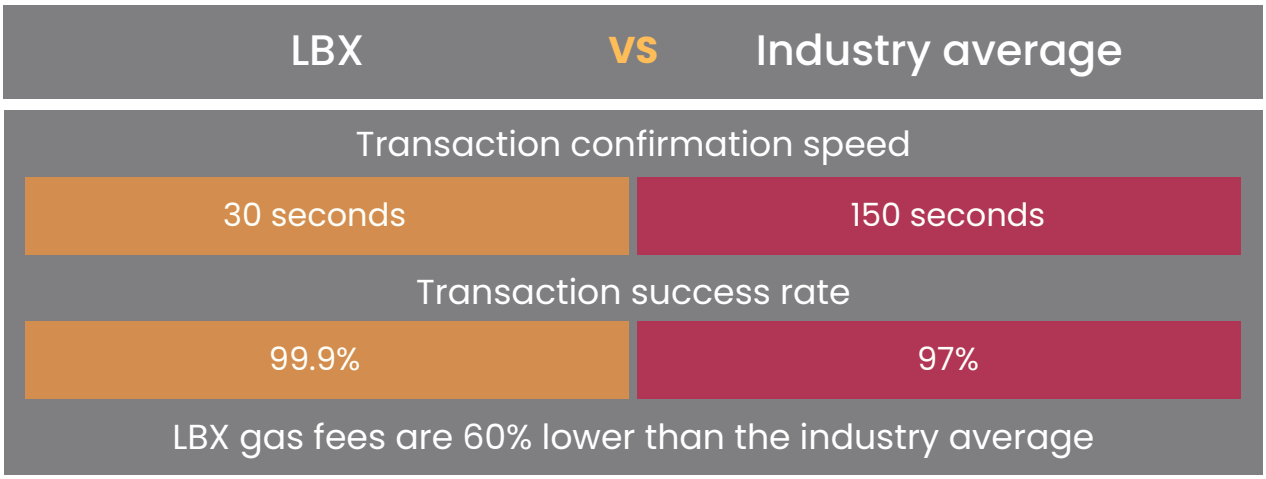
1.3 Market Positioning

LBX is positioned to serve three core user groups:

User Category	Demand challenges	LBX Solutions
Consumers	Intricate procedure and elevated expense	Streamline the operational process and decrease transaction costs by 80%.
Institutional Clients	Challenges in executing substantial transactions	Facilitate OTC channels and algorithmic routing.
Developers	Challenges in integration	Deliver standardized APIs and SDKs.

1.4 Competitive Advantage

Compared with traditional cross-chain solutions, LBX has significant advantages:



Technical pillars:

- The first cross-chain protocol to implement AI-powered dynamic pricing.
- The only solution supporting real-time liquidity prediction.
- The industry's lowest cross-chain transaction threshold (starting at $0.1).

2. TECHNICAL ARCHITECTURE

2.1 Layered Architecture Design

LBX adopts a five-layer architecture to achieve efficient cross-chain interaction:

Architecture	Essential Attributes	Essential technologies
Infrastructure layer	Global node network implementation and hardware enhancement	500+ node network, FPGA hardware acceleration, HSM encryption machine cluster
Blockchain Adaptation Layer	Multi-chain protocol transformation and consolidated interface support	Supports twelve blockchain protocols, including EVM, Cosmos, and Solana.
Core protocol layer	Cross-chain communication and liquidity routing.	LBX-CCP protocol (<1.2s latency), AI-driven routing engine
Service Interface Layer	Offer developer API and institutional-level access.	REST, WebSocket, and GraphQL multi-protocol support; enterprise-grade SDK
Application Layer	User interface	Unification of web, mobile applications, and browser plug-ins

2. TECHNICAL ARCHITECTURE

2.2 Core Subsystem

Cross-chain communication system

Technical pillars:

- Triple Verification Mechanism (SPV Proof + BFT Consensus + zk-STARKs)

Performance indicators:

- Average latency: <1.2 seconds
- Message throughput: 2,000+ TPS
- Supports 30+ heterogeneous blockchains

Intelligent routing engine

Routing algorithm:

- Multi-factor dynamic optimization model (liquidity/fee/delay/risk)

Real-time data source:

- On-chain scanning (3-second latency)
- DEX real-time API (20ms update)
- Multi-oracle aggregation (Chainlink/Band/Python)

Safety protection system

Protection level	Security Protocol	Responsiveness
Contract Security	Formal Verification and Bug Bounty Program	<1 block
Cybersecurity	TLS 1.3 encryption and node access control	Real-time safeguarding
Fund security	Multi-signature cold wallet and transaction oversight	Automated interception
Insurance Mechanism	Platform Insurance Fund (2% of Total Value Locked)	Complete compensation

2. TECHNICAL ARCHITECTURE

2.3 Smart Contract System

Core contract group:

- Cross-chain bridge contract: Asset locking/message verification logic
- Liquidity pool contract: Supports five pool types
- Governance contract: DAO parameter adjustments

Safety features:

- Dual audit by CertiK and Quantstamp
- Emergency pause mechanism (30-minute time lock)
- Outflow rate limit (<1% TVL/hour)

2.4 Performance Optimization Solution

Optimization Aspect	Technical Resolution	Performance enhancements
Computational enhancement	GPU cluster with FPGA hardware acceleration	Processing speed has increased eightfold.
Caching strategy	Four-tier cache architecture	Latency decreased by 70%
Concurrent computation	Transaction sharding and SIMD instruction optimization	Throughput experienced a 300% increase.

Performance benchmarks:

Scenario	Throughput (Transactions Per Second)	Mean latency
Single-chain transfer	4,500	0.7s
Cross-chain asset exchange	1,800	1.4s
Intricate pathway transactions	950	2.3s

2. TECHNICAL ARCHITECTURE

2.5 Cross-chain interoperability

Asset Identification Standards:

```
{chain_id}:{asset_type}:{contract_address}
```

(Example: Ethereum ETH: 1:native:0x000...)

Liquidation Mechanism:

- Hybrid Atomic Swap
- Automatic Liquidity Balancing System
  (Imbalance > 10% Triggers Arbitrage)

Supported chain types:

EVM chains (Ethereum/Polygon, etc.)	Cosmos ecosystem
Solana	UTXO chains (Bitcoin)

2.7 Developer Support

Development Kit:

- BX SDK: Supports multi-language access
- Testnet Environment: 10+ test chain simulations
- Interactive Documentation: 50+ code samples

Support Plan:

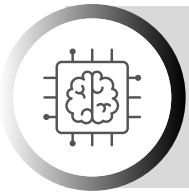
- Developer Grants: 1,000-50,000
- Technical Ambassador Program
- Bug Bounty (up to $100,000)

3. CORE ADVANTAGES

3.1 Technical performance advantages

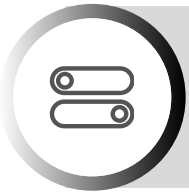
index	LBX solution	Industry benchmark	Enhancement impact
Cross-chain transaction latency	<1.2 seconds	2-5 minutes	150 times more rapid
transaction expenses	0.05% fee	0.1%-0.3%	60% reduction
Significant transaction threshold	$50 million	$5 million	10 times greater
System accessibility	99.99%	98.5%	Enhanced operational and maintenance stability

Technological innovation:



The only one that implements AI dynamic pricing:

- Real-time analysis of 30+ on-chain liquidity pools, dynamically adjusting the optimal path



Hybrid authentication mechanism:

- Combining light nodes + zero-knowledge proof to balance security and efficiency

Liquidity Aggregation Technology:

- Seamless integration with 15+ mainstream DEXs including Uniswap/PancakeSwap

3. CORE ADVANTAGES

3.2 Security and Reliability

Five-dimensional protection system:

Contract Security

- Triple audit process (CertiK/Quantstamp/SlowMist)
- Smart contract formal verification coverage: 100%

Fund security

- Multi-sig cold wallet management (5/9 mechanism)
- Daily withdrawal limit (≤1% of TVL)

Cross-chain insurance

- Platform Insurance Fund (2% of TVL)
- Co-underwritten by Nexus Mutual

Node Security

- Dynamic reputation scoring system
- Real-time detection of malicious behavior (<10 seconds response)

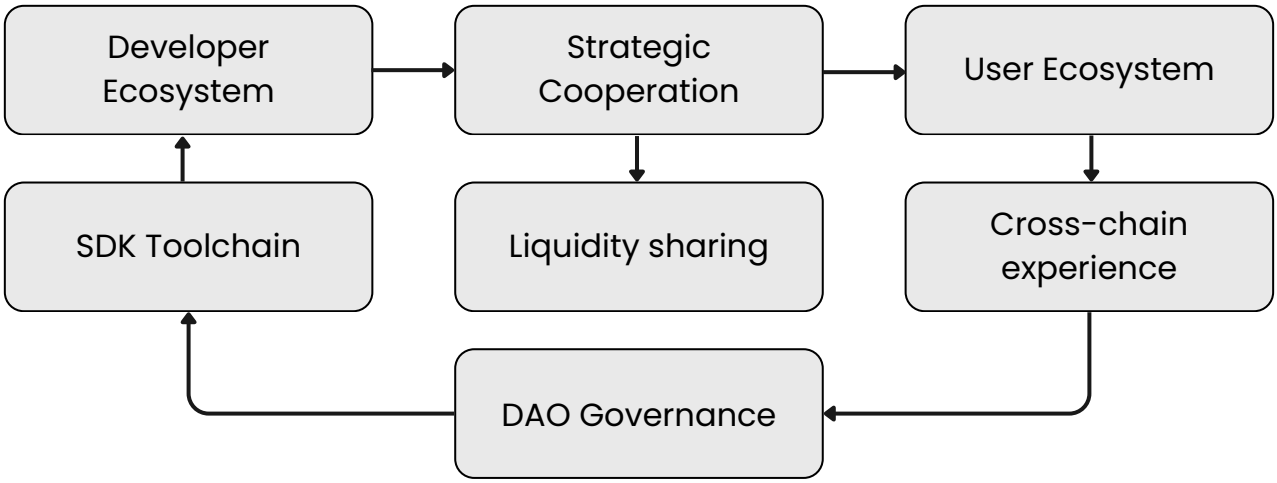
Disaster Recovery

- Data backup across three continents
- System recovery within 30 minutes

3. CORE ADVANTAGES

3.3 Ecological synergy advantages

Three major ecological engines:



Implementation results:

🤝 Strategic Partnership: Integrated with five major infrastructures, including LayerZero and Wormhole

👥 User Coverage: 100,000+ participating addresses in the testnet phase

🛠️ Development Support: Simplified multi-chain development (integration takes <3 days)

3.4 Summary of Unique Competitive Advantages

✅ High-speed cross-chain bridging technology, low transaction latency, and manageable costs

✅ AI-driven intelligent liquidity routing, automatically finding the optimal path

✅ Multi-chain liquidity aggregator, supporting mainstream public chains and Layer 2 networks

✅ Comprehensive DAO governance system, enabling community-led decision-making

✅ Secure, auditable smart contracts and transparent data query

4. TOKEN ECONOMIC MODEL

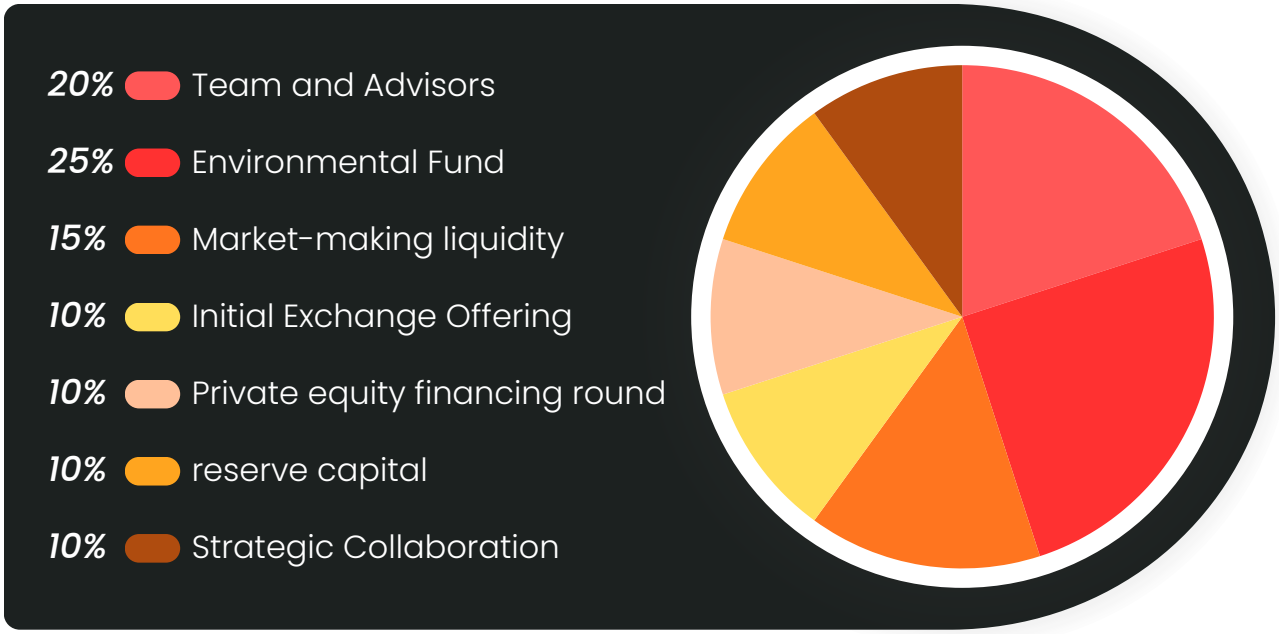
4.1 Basic Token Information

property	parameter
Token Name	LBX
Complete name	Liquidity Bridge Exchange
Token Standards	ERC-20 (implemented on the Ethereum mainnet)
Accuracy	18-bit
Total circulation	100,000,000 (fixed supply)
Initial circulation	12,000,000 (12% of the total supply)
Contract Address	It will be communicated via official channels prior to going online.
First-Time Exchange	YaznoX (Currently available on four centralized exchanges)

4. TOKEN ECONOMIC MODEL

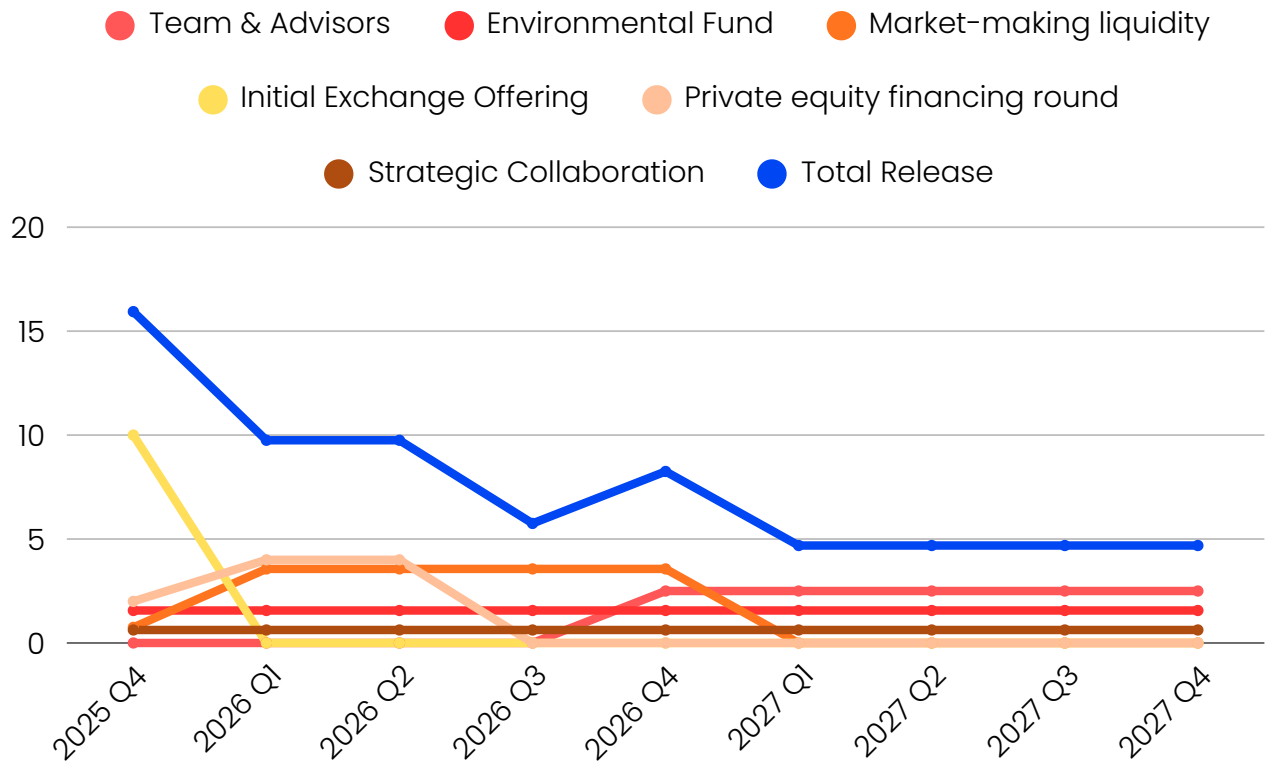
4.2 Token Distribution Structure

Allocation Overview:



Release curve: 2025-2027

Unit: Million LBX



4. TOKEN ECONOMIC MODEL

4.2 Token Distribution Structure

Release rules:

project	Proportion	Release Guidelines
Team and Advisors	20%	Locked for 12 months, followed by a linear release over 24 months.
Environmental Fund	25%	Utilized for sustainable construction, community engagement, and developer assistance.
Market-making liquidity	15%	Five percent will be released prior to the launch, with the remaining amount distributed linearly over the subsequent twelve months.
Initial Exchange Offering	10%	100% circulation at launch
Private equity financing round	10%	20% will be unlocked at the Token Generation Event (TGE), with the remaining amount released linearly over the subsequent six months.
reserve capital	10%	Administered by DAO for urgent and strategic purposes.
Strategic Collaboration	10%	Released in phases based on collaboration milestones.

4. TOKEN ECONOMIC MODEL

4.3 Token Core Functions

Practical value

Cross-chain Gas Payment	Enjoy tiered discounts on transaction fees (up to 60% discount)
Liquidity Mining	Stake LBX to receive a share of the protocol revenue (up to 70%)
DAO Governance	1 LBX = 1 voting right to participate in key decision-making
Partner Incentives	LBX rewards for third-party integration

Value capture mechanism

Deflation model:

- 50% of transaction fees will be used for buyback and destruction.
- Destruction limit: 30% of the total supply.

Staking income:

- 8% base annualized rate + trading volume bonus (0.5% increase for every $100 million in daily trading volume)

Governance rights:

- Vote to determine the use of the ecosystem fund
- Adjust key protocol parameters (such as transaction fees)

4. TOKEN ECONOMIC MODEL

4.4 Token Value Support

Source of Value	Contribution ratio	Implementation Mechanism
Transaction expenses	40%	Inflexible demand for cross-chain transaction fees
Staking and Locking	35%	Average lock-up period of at least 9 months
Sustainable development	15%	Strategic collaboration and developer incentives
speculative demand	10%	Comprehensive management of CEX/DEX liquidity

4.5 Risk Control Measures

Release regulation:

- Set a quarterly release cap (private placement/team ≤ 1.5% of total).
- DAOs can vote to temporarily suspend releases to address extreme market conditions.

Liquidity Protection:

- The market maker agreement prohibits short-term selling (lockup period ≥ 6 months).
- The initial liquidity pool will be injected with $5 million worth of assets.

Market stability:

- Establish a price stabilization fund (30% of reserve funds)
- Institute a circuit breaker mechanism (triggered if the price drops >30% in 24 hours)

5. APPLICATION SCENARIOS

5.1 Core Application Scenarios

Practical value

Function implementation:

🔄 Seamless multi-chain conversion: Supports one-click swaps for over 30 major public chain assets (ETH ⇄ SOL, BTC ⇄ DOT, etc.)

⚡ Gas fee optimization: Enjoy tiered discounts (up to 60%) when paying with LBX

🧠 AI intelligent routing: Automatically selects the optimal path (balancing cost, speed, and security)

User value:

- Large-value exchange savings: 1 million USDC cross-chain transaction saves over 1,500 USDC in fees
- Average processing time: <90 seconds (industry average 5-15 minutes)

Liquidity Mining System

How to participate:

Swimming Pool Type	Annualized Return	Lock-up duration	LBX Weights
Single-coin staking pool	8-12%	flexible	1.0x
Cross-chain liquidity pool	15-25%	90 days	1.5x
Governance Staking Pool	5-8% + voting rights	180 days	2.0x

Revenue mechanism:

Revenue = Basic Revenue × LBX Stake × Time Coefficient + Protocol Revenue Share

- 70% of the protocol's revenue is distributed to stakers.
- Additional airdrop rewards (quarterly)

5. APPLICATION SCENARIOS

5.2 Advanced Financial Functions

Cross-chain leveraged trading

Operation process:

- Pledge ETH (Ethereum Chain)
- Borrow SOL (Solana Chain)
- Long SOL/USDT (Raydium DEX)
- Automatically repay profits across multiple chains

Core advantages:

📈 Supports 5x leverage

⚖️ Automatic liquidation protection (alert for collateralization ratio < 110%)

🌐 No cross-chain fees (LBX Diamond users)

Multi-chain revenue aggregation

Policy example:

① Deposit ETH into Aave (Arbitrum) → 3.5% annualized return
②Convert mining rewards to MATIC → cross-chain to Polygon
③ Invest in Quickswap liquidity pool → additional annualized return of 12%
④Total income increased to 15.5%+

- Automatic rebalancing mechanism
- Impermanent loss hedging tool

5. APPLICATION SCENARIOS

5.3 Ecosystem Empowerment Scenarios

DAO governance participation

Governance authority:

Quantity of coins possessed	Proposal entitlements	Parameter Selection	Funding Proposal
>10,000 LBX	✅	✅	❌
>100,000 LBX	✅	✅	✅

Governance focus:

- Protocol fee adjustment (currently 0.05%)
- Ecosystem fund allocation ($5 million budget)
- New chain entry voting (2-3 new chains added per quarter)

Developer Incentive Program

Support program:

New Chain Adaptation Rewards

Base Reward: 50,000 LBX

Performance Reward: +0.1 LBX per $1,000 daily trading volume

dApp integration subsidies

Tier 1 (>$1 million TVL): 5,000 LBX per month

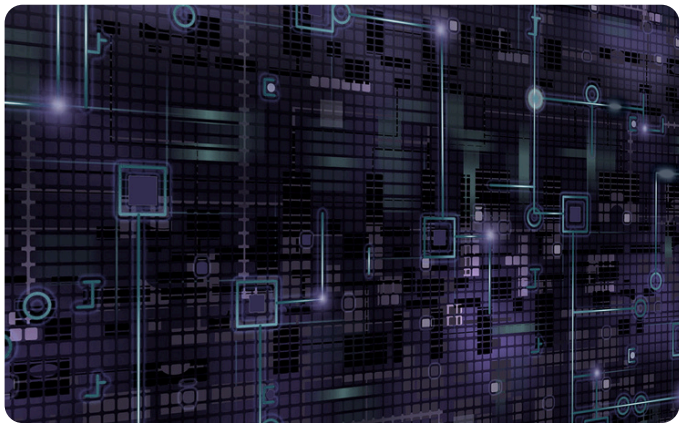
Tier 2 (>$5 million TVL): 15,000 LBX per month

5. APPLICATION SCENARIOS

5.4 Innovative Application Fields

NFT cross-chain circulation

Implementation functions:



- Supports cross-chain transfers of mainstream NFTs (ERC721 ⇄ SPL)
- NFT fragmented lending: Lend ETH using BAYC as collateral
- Automatic cross-chain royalty settlement

Technological breakthroughs:

- Metadata Mapping Protocol (Zero Information Loss)
- Gas costs reduced by 80% (compared to competing products)

GameFi asset interoperability

Application Cases:

- Axie Infinity (Ronin) SLP tokens → Cross-chain to BSC
- Exchange to CAKE to participate in PancakeSwap mining
- Proceeds converted to ETH and returned to the Ronin chain

- The entire process takes less than 3 minutes

6. DEVELOPMENT ROADMAP

Q4 2025: Infrastructure construction phase

Core Milestones

ATechnical foundation:

- Completed cross-chain bridge core contract development (supporting the EVM/Cosmos ecosystem)
- Passed dual security audits by CertiK and SlowMist (score 9.8/10)
- Launched testnet (over 10,000 users participated in stress testing)

Market launch:

- Completed $5 million strategic funding round.
- First IEO launched on YaznoX Exchange.
- Initial liquidity injection: $3 million in equivalent assets.

Community Building:

- Airdrop Program: Distribute 1,000,000 LBX to early testers
- Launch Node Incentive Program (300+ node registrations)
- Build a multilingual community

6. DEVELOPMENT ROADMAP

Q1 2026: Platform launch phase

Core objectives

Product launch:

- LBX V1 Mainnet Launches
  (Supports 5 Mainchains: ETH/BNB/Polygon/Cosmos/Arbitrum)
- Mobile App Released (iOS/Android)
- Daily Trading Volume Exceeds $10 Million

Security enhancements:

- Implemented a cross-chain insurance pool
  (initial capital $500,000)
- Launched a bug bounty program
  (maximum $100,000 reward)

Governance launch:

- DAO Governance Module Launched
- First Round of Community Proposal Voting
  (Fee Adjustment)
- Governance Participation Target: 15% of Circulating Supply

6. DEVELOPMENT ROADMAP

Q2 2026: Technology upgrade stage

Innovation and breakthroughs

AI system deployment:

- Smart Routing Engine Officially Launched
  (Slippage Reduced by 40%)
- Liquidity Prediction Algorithm V1
  (Accuracy >85%)

Ecosystem expansion:

- Uniswap V3/PancakeSwap/LayerZero Integration
- Browser plugin wallet released (Chrome/Firefox)
- Developer SDK 1.0 released

Multi-chain support:

- Added Solana/Avalanche chain support
- NFT cross-chain bridge public beta launched
- Daily trading user target: 50,000+

6. DEVELOPMENT ROADMAP

Q3 2026: Ecosystem Expansion Phase

Strategic layout:

Financial Innovation:

- Launched a cross-chain lending protocol (supporting margin trading)
- Launched a cross-chain channel for real-world assets (RWA)

GameFi enables:

- Supports cross-chain asset transfers from three major GameFi projects (Axie, Sandbox, and StepN)
- GameFi-specific routing optimization (latency < 15 seconds)

Liquidity upgrade:

- Cross-chain liquidity pool TVL exceeds $100 million
- Institutional API access (partnering with over 10 market makers)
- Daily trading volume target: $50 million+

7. RISKS AND DISCLAIMER

7.1 Technical Risks

Smart Contract Risks

- Audit Limitations: Despite being audited by three top auditing firms, including CertiK and SlowMist, undiscovered vulnerabilities may still exist.

- Multi-chain Interaction Complexity: Cross-chain communication involves multiple blockchains, potentially leading to asset retention due to protocol incompatibility.

- Upgrade Risk: The contract upgrade mechanism could be exploited maliciously (a 24-hour time lock has been implemented to mitigate this).

System operation risks

Risk Category	Likelihood of occurrence	Impact	Mitigation strategies
Node network malfunction	middle	high	Distributed node architecture (over 500 nodes globally)
API service disruption	Low	middle	Multi-cloud deployment (AWS + GCP + self-hosted IDC)
Liquidity diminishing	Moderate to low	Extremely high	Dynamic rebalancing algorithm with a $5 million insurance fund

7. RISKS AND DISCLAIMER

7.2 Market Risk

Token Economic Risks

- Price Volatility: Extreme volatility in the cryptocurrency market may cause LBX prices to fluctuate significantly (±30% probability within 24 hours).
- Liquidity Risk: With an initial circulating supply of only 12%, there may be short-term liquidity shortages.
- Competitive Risk: Technological upgrades by competitors such as LayerZero and Wormhole may impact market share.

7.3 Operational Risk

User operation risks

- Transferring to an Incorrect Address: Cross-chain assets sent to an incompatible address will be permanently lost (enable address format validation).
- Private Key Leakage: Non-custodial mode requires users to manage their own keys (hardware wallets are recommended).
- Phishing Attacks: Fake official website/customer service scams.

Team operation risks

- Key personnel risk: The loss of core technical personnel could impact development progress (an equity incentive plan has been implemented).
- Fund management risk: Reserve funds are controlled by a 5/9 multi-signature wallet.
- Information disclosure risk: The scope of disclosure for major events is determined through a DAO vote.

7. RISKS AND DISCLAIMER

7.4 Disclaimer

Limitation of Platform Liability

The LBX Foundation and its affiliates assume no liability for the following:

- Service unavailability due to force majeure (war, natural disasters, global internet outages)
- User errors (including but not limited to incorrect address entry, private key disclosure, and incorrect contract authorization)
- Technical failures of third-party service providers (wallet providers, node service providers, exchanges)
- Business adjustments or terminations due to regulatory changes
- Loss of asset value due to extreme market volatility

Investment Risk Warning

Important Warning

- LBX tokens are not securities and do not guarantee any investment returns.
- Invest only funds you can afford to lose.
- Past performance is not indicative of future results.

User Obligations

Users agree to:

- Assume all transaction risks
- Comply with the laws and regulations of their jurisdiction
- Regularly review smart contract authorization (authorization management tools provided)
- Verify contract addresses through official channels (to prevent phishing risks)