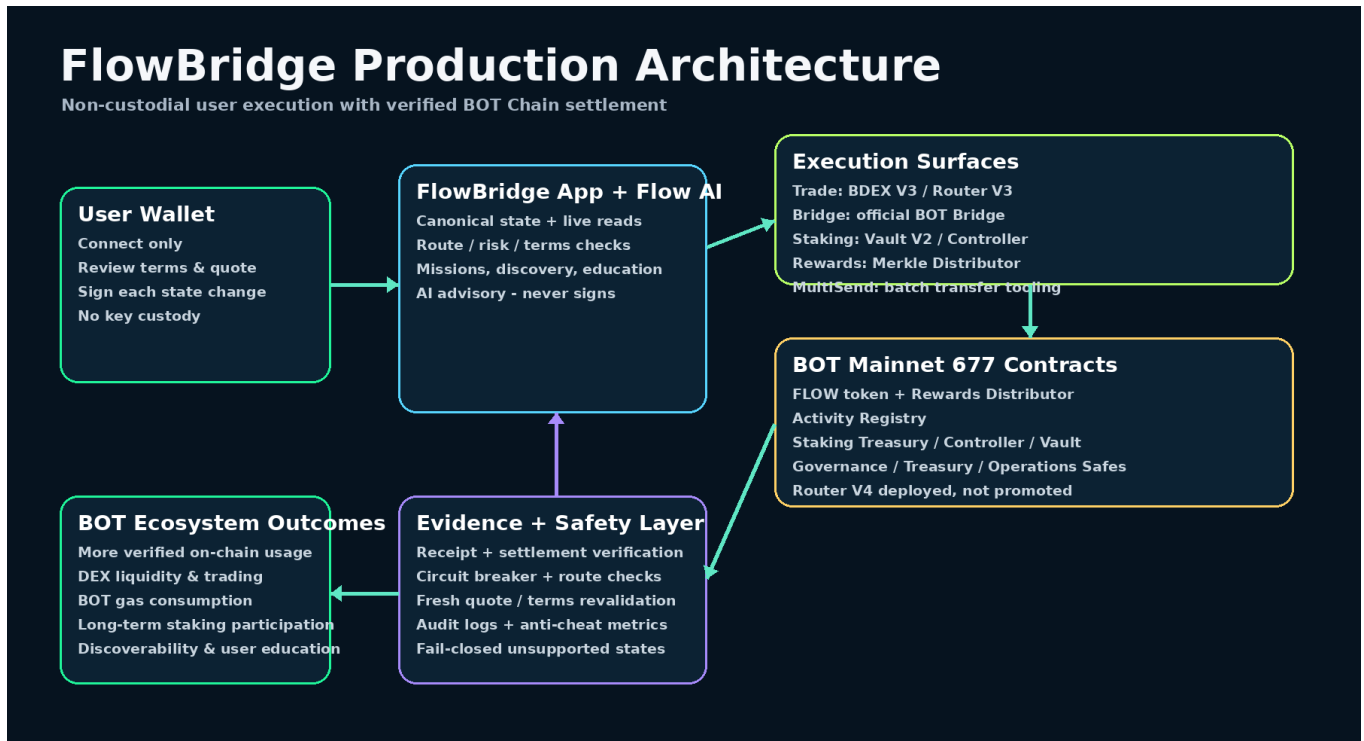


FlowBridge Whitepaper v1.0

A non-custodial AI-guided DeFi and ecosystem growth layer for BOT Chain

Earn. Learn. Grow. Support BOT Chain.

BOT Mainnet 677 | Mainnet Live | Non-custodial | EVM Deployment Track #1 Winner



Prepared for BOT Chain Ecosystem Support & Incentive Program review.

Abstract

FlowBridge is a mainnet-live application that reduces the complexity of participating in the BOT Chain ecosystem. It brings trading, bridging, staking, rewards, batch asset movement, ecosystem discovery and guided education into one non-custodial experience. FlowBridge is designed around a simple principle: software may guide and verify, but the user wallet remains the authority for economic transactions.

The project uses deployed smart contracts and canonical on-chain evidence to separate user principal, reward inventory, governance authority and application guidance. FlowBridge won 1st Place in the EVM Deployment Track of BOT Chain Builder Challenge #1 and is now positioned to scale from technical validation to broader ecosystem adoption.

1. Vision

Web3 users often encounter a fragmented journey: find a token, locate the correct DEX, understand the route, bridge assets, verify network settings, stake, claim rewards, and determine which actions are actually final. FlowBridge turns this fragmented flow into a guided path while retaining the open, wallet-controlled nature of on-chain execution.

Core message

Earn. Learn. Grow. Support BOT Chain.

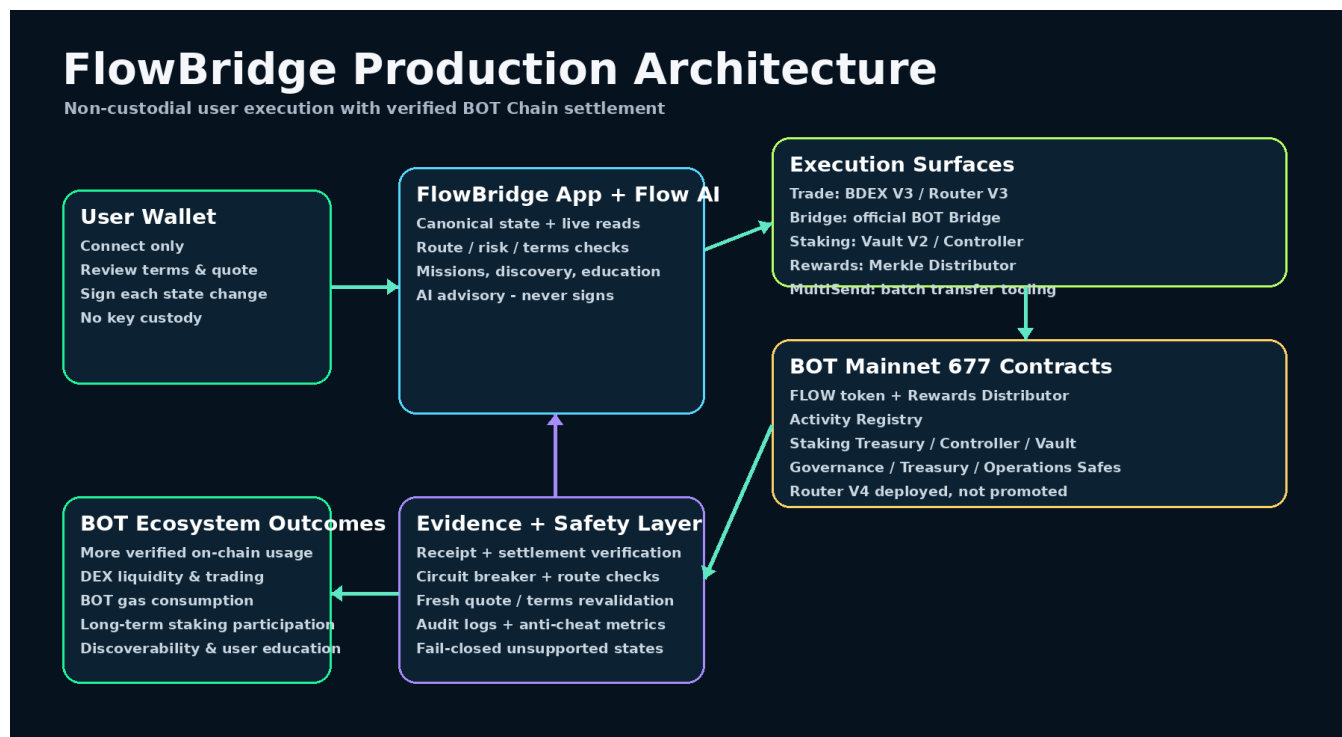
- Earn: access transparent staking and verified campaign rewards without fabricated yields.
- Learn: understand what an action does, what it costs, what can fail and what happens next.
- Grow: discover new BOT Chain routes, projects and participation opportunities.
- Support BOT Chain: increase meaningful on-chain usage, liquidity, application discovery and long-term participation.

2. Why BOT Chain

BOT Chain is an EVM-compatible Layer 1 designed for high-frequency applications, AI agents, DePIN and decentralized applications. FlowBridge uses the familiar EVM model while building product-specific safety and usability layers around BOT Mainnet 677.

- BOT is the network gas token, so genuine application usage directly consumes BOT gas.
- BDEX provides native decentralized exchange infrastructure for FLOW liquidity and trading.
- The official BOT Bridge remains the production bridge path where FlowBridge uses direct user-wallet interaction instead of hidden custody.
- BOT Chain ecosystem programs provide a path from deployed application to liquidity, user growth and official distribution.

3. Product System



3.1 Trade and Buy

FlowBridge discovers live BOT Chain liquidity, obtains route-specific quotes and lets the user review expected output, minimum received, price impact and protection mode before signing. FLOW/USDT BDEX V3 liquidity is live. Route discovery supports the direct 1% pool and valid protected multi-hop routes when they provide the better canonical execution path.

- Circuit breaker states distinguish warming, temporary reference unavailability and actual abnormal-price risk.
- Transient RPC/reference failures self-heal and cannot permanently lock the route.
- Connect-wallet behavior is connect-only; token approvals and swaps are separate explicit actions.
- Price protection is evaluated on route-effective execution price, not merely the first hop.

3.2 Cross-Chain Bridge

The production bridge model sends the user wallet directly to the official BOT Bridge. FlowBridge prepares the route and explains the steps, but it does not custody the user asset or silently sign bridge transactions. This separation reduces adapter risk and keeps the canonical bridge settlement path visible to the user.

3.3 MultiSend

MultiSend extends FlowBridge from single transfers to operational asset movement: one-to-many distribution, many-to-one consolidation and advanced many-to-many workflows across supported networks. Safety tests cover invalid addresses, bad amounts, approvals, reverting recipients, reentrancy and non-standard token behavior. QR and CSV workflows improve usability without granting signing authority to the application.

3.4 Rewards

FlowBridge rewards use a funded, finite, evidence-backed model. Mainnet rewards are distributed through a Merkle/epoch Distributor. A user receives FLOW only when a specific campaign publishes a verified entitlement for that wallet. FLOW Points and Campaign PTS remain distinct accounting systems and are never silently converted into FLOW.

3.5 Staking

Staking separates user principal from reward inventory. The mainnet system contains a Reward Treasury, Controller and Vault V2. Genesis/floor staking products are live under funded capacity and per-wallet quote checks. Flexible, 30D, 90D, 180D and 365D products exist; longer products transition from the Genesis window to their reserved floor when the standard variable layer is unavailable.

- Genesis applies for at most 90 reward-days or until a shorter product matures.
- Locked floor obligations are reserved at position entry before the user commits.
- Flexible has no guaranteed standard floor.
- Principal and reward inventory are never commingled.
- Dynamic standard bonus remains disabled while the production oracle is unset.

3.6 Flow AI and Guided Journeys

Flow AI is an advisory and orchestration layer. It can explain state, surface opportunities, prepare user-readable actions and guide onboarding. It cannot hold private keys, sign transactions, alter staking economics, move treasury funds or invent an on-chain result. Economic execution always returns to an explicit wallet confirmation.

4. Production Architecture and Trust Boundaries

Layer	Responsibility	Authority Boundary
User wallet	Owns assets and signs state changes	Final economic authority
FlowBridge UI / Flow AI	Discovery, education, preparation, simulation	No custody; no signing
Evidence / state layer	Canonical network, balances, quotes, receipts, eligibility	Read / verify; fail closed
Deployed contracts	Rewards, staking, activity, routing candidates	Role-gated on-chain state
Governance Safes	Treasury, governance, operations	2-of-3 multisig authorities
BOT Chain	Final settlement	Canonical mainnet 677

5. Mainnet Contract Stack

Contract	Address	Status
FLOW Token	0xcaaB50F36252a57529AFef651fa6B9f9281917fF	LIVE / verified
Rewards Distributor	0x7b805B036B22E2B71Ef5E8f7EA21D8791819b922	LIVE / funded
Activity Registry	0x86590b7C8A2Ad9a1dAD8183Eaf627AE4B7Ff3814	DEPLOYED / controlled
Staking Reward Treasury	0x96552909998F3DbAf5Ff4979dc158508b3442e65	LIVE / funded
Staking Controller	0x44b9b880C6188D8b8dbe4f68216aE28a5A1253bF	LIVE; oracle unset
Staking Vault V2	0x15e7B1b4b16a43E6CE2E1f460dBE4201E9B6790D	LIVE
Router V4	0x3c6fdaf93F39c72be931AB80196292962ebe6B06	DEPLOYED / not promoted
Router Lens	0x48338d23640b09acDf0e7246844a9d867DC8205c	DEPLOYED

6. FLOW Token Economics

FLOW has a fixed genesis supply of 1,000,000,000 tokens with 18 decimals. The deployed token has no future mint authority. The approved v1.1 allocation is designed to fund ecosystem participation while keeping user rewards, staking, liquidity and long-term reserves distinct.

Allocation	Share	FLOW
Community & Ecosystem	50%	500,000,000
Team & Core Contributors	15%	150,000,000
Protocol Treasury	15%	150,000,000
Liquidity & Market Infrastructure	10%	100,000,000
Strategic Ecosystem Partners	5%	50,000,000
Security & Contingency Reserve	5%	50,000,000

Community/Ecosystem internal planning includes user rewards, partner campaign matching, long-term staking, referral/community/developer programs, Genesis recognition and a future ecosystem reserve. FLOW Points are not a 1:1 token claim.

7. Staking Economics and Solvency

Product	Genesis max APR	Standard floor / target / cap	Current production behavior
Flexible	18%	0% / 10% / 12%	Genesis only; no guaranteed floor
30D	27%	8% / 14% / 18%	Genesis-covered when eligible; floor reserved
90D	36%	10% / 18% / 24%	Genesis + reserved floor as applicable
180D	48%	12% / 24% / 32%	Genesis first 90 days, then reserved floor while dynamic layer off
365D	60%	15% / 30% / 40%	Genesis first 90 days, then reserved floor while dynamic layer off

- Long-term staking reserve: 75M FLOW.
- Year-1 staking ceiling: 3M FLOW total, including Genesis ≤ 1 M and Standard ≤ 2 M.
- Approved maxFlowPerEpoch: 50,000 FLOW per 7 days.
- Initial staking reward treasury inventory: 10M FLOW. Inventory does not raise Year-1 release ceilings.
- Dynamic standard rewards remain disabled until a production-safe FLOW price reference is explicitly approved and activated.

8. DEX Liquidity, Price Protection and Future Oracle

A FLOW/USDT BDEX V3 1% pair is live. FlowBridge treats trading liquidity and staking-oracle security as separate concerns. The pool can support normal swaps while still being classified as bootstrap-only for oracle purposes.

- Normal FLOW/USDT swap protection uses bounded slippage and price-impact checks.
- A $\geq 30\%$ abnormal deviation is a FlowBridge route-preparation circuit-breaker condition; FlowBridge does not widen slippage to tolerate a collapse.
- Temporary reference failures are retryable and self-healing.
- Observation capacity has been increased to 128 so genuine TWAP history can accumulate.
- The staking oracle remains address(0) until sufficient real history, liquidity resistance, freshness and deviation policies all pass explicit owner review.

9. Security Model

Control	Design
Non-custodial execution	User wallet signs every state-changing action.
Exact approvals	Use exact/bounded approvals for canaries and reviewed flows; avoid unnecessary unlimited approvals.
Terms-change protection	Fresh independent on-chain quote immediately before locked staking; drift forces re-review.
Wallet binding	Single-use server challenge signed by the wallet; canonical bound wallet enforced.
Role separation	Governance, Treasury, Operations and specialized publishers/attesters are separated.
Principal protection	Staking principal is separate from reward inventory and cannot be treated as free rewards.
Oracle fail closed	No dynamic standard rate when the price reference is absent or unsafe.
Evidence settlement	Receipt success plus live post-state is required before FlowBridge treats an economic action as settled.

10. Governance

- Treasury Safe: 0xeFc13d1A1dC30BA2DA0Bb005ba5A783c6b229Ea4.
- Governance Safe: 0x88A4CC1F5771523baeB83DaEea07D323a3ce9507, 2-of-3.
- Operations Safe: 0x1Ce0b1DF5d2055f6e92122D8cB7669609C2359eF, 2-of-3.
- No AI or ordinary application service receives final treasury/governance authority.
- Router V4 remains unpromoted until a separate production-routing decision; the deployed address alone does not activate it.

11. Ecosystem Contribution to BOT Chain

Mechanism	How FlowBridge Supports BOT Chain
Gas usage	Real user swaps, staking, rewards and transfers settle on BOT Mainnet and consume BOT gas.
Liquidity	FLOW markets deepen native BDEX activity and make ecosystem assets easier to access.
Retention	Staking, rewards, missions and education give users reasons to remain active after a first swap/bridge.
Discovery	FlowBridge can surface verified BOT Chain projects, routes and participation opportunities.
Developer proof	Verified production contracts and security gates demonstrate deployable EVM use cases on BOT Chain.
Data integrity	Program metrics and reward eligibility are based on canonical on-chain evidence rather than marketing estimates.

12. BOT Chain Ecosystem Support Program Strategy

FlowBridge is best positioned for Scheme A / DEX Liquidity Support because the FLOW/USDT BDEX V3 pair is live. The current official program page publishes a \$50M ecosystem fund and tiered DEX incentives based on LP value, organic volume and transaction counts. FlowBridge should apply as a proven mainnet project seeking liquidity and distribution support while transparently showing which quantitative thresholds are still in progress.

- Request market-maker / liquidity coordination to scale the live FLOW pair responsibly.
- Request technical account management for oracle, routing and support-program integration review.
- Request official wallet/DApp-store placement, ecosystem directory/leaderboard listing and Launchpad consideration where applicable.
- Request official certification badge, Builder Challenge winner case-study coverage and media/roadshow support.
- Use the Builder Challenge #1 EVM Deployment win as evidence of prior BOT Chain recognition, not as a claim of automatic grant eligibility.

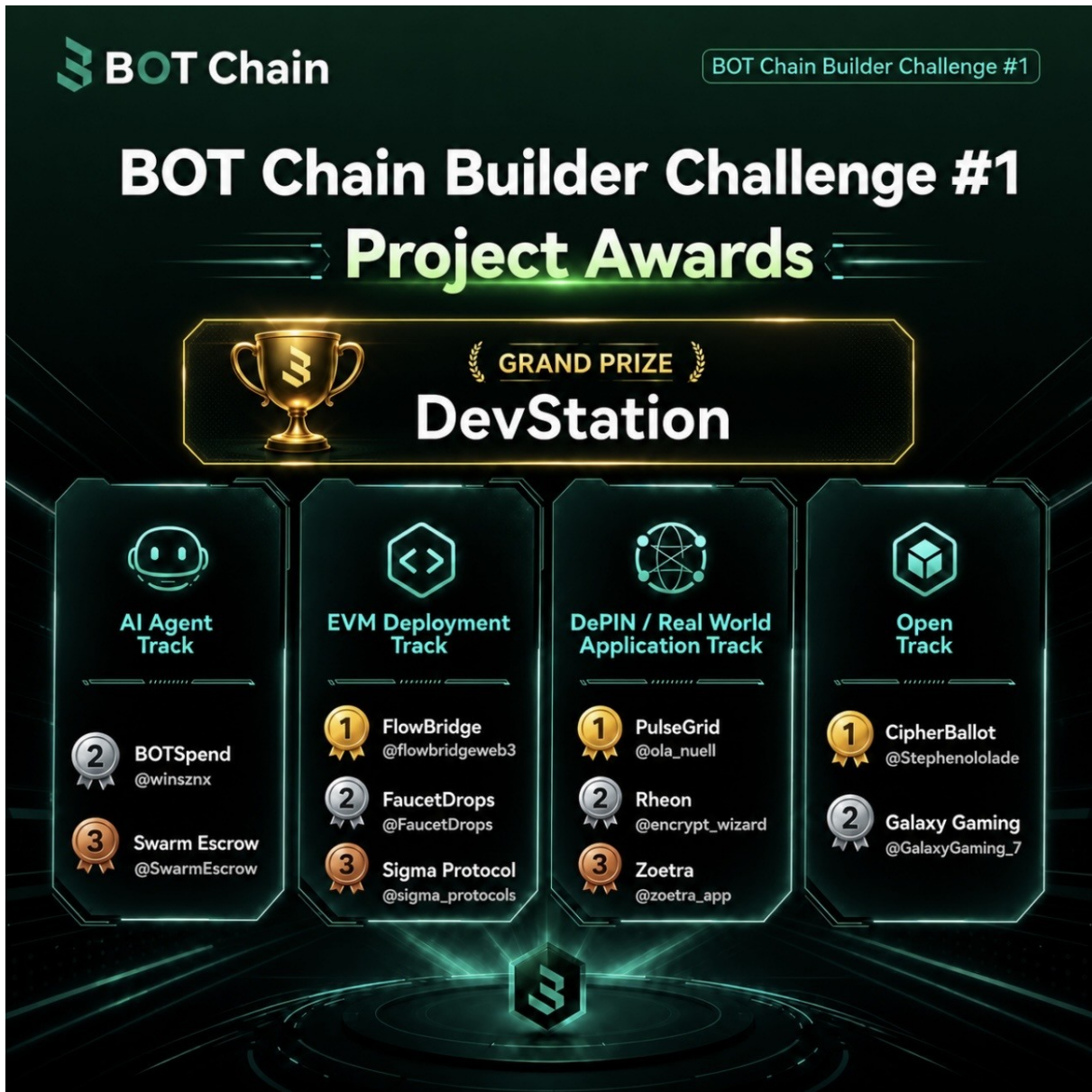
13. Roadmap - Use the Deployed Stack First

Horizon	Workstream	New Contract Required?
Immediate	Close 30D maturity-withdrawal canary; publish public docs / contract registry / support metrics.	No
Immediate	Continue FLOW/USDT TWAP observation and range/liquidity security analysis.	No
Near term	Activate dynamic standard staking only if oracle, budget, roles and security gates pass.	No - existing R4/R5/R6
Near term	Expand finite verified rewards campaigns.	No - existing Distributor
Near term	Evidence-backed Activity Registry attestations if approved.	No - existing Registry
Near term	Improve MultiSend, ecosystem discovery and guided journeys.	No
Later	Router V4 promotion after separate mainnet routing canary and governance approval.	No - already deployed
Later	Additional chains / new protocol modules only after a separate security and business decision.	Maybe

14. Risks and Disclosures

- Smart-contract and integration risk cannot be eliminated; verified source, tests and staged canaries reduce but do not remove risk.
- DEX liquidity can move out of range and remains exposed to impermanent loss, price manipulation and market volatility.
- APR is not APY. Staking rewards are estimates based on the applicable rate and time; variable rewards may remain unavailable.
- Campaign rewards exist only when a funded, verified allocation is published for the wallet.
- Bridge transactions inherit official bridge and destination-chain risks.
- Program incentives are subject to BOT Chain rules, audit rights, anti-cheating controls and future updates.
- Nothing in this whitepaper is a guarantee of investment return, token price appreciation, ecosystem funding or exchange listing.

15. Recognition



FlowBridge - 1st Place, EVM Deployment Track, BOT Chain Builder Challenge #1.

16. References

- BOT Chain Ecosystem Support Program - <https://www.botchain.ai/en/ecosystem-support/>
- BOT Chain Developer Documentation - <https://dev-docs.botchain.ai/>
- BOT Chain Ecosystem Leaderboard - <https://www.botchain.ai/en/blog/bot-chain-ecosystem-leaderboard/>
- FlowBridge - <https://flowbridge.space>
- FlowBridge X - <https://x.com/flowbridgeweb3>
- BOT Chain Builder Challenge #1 award announcement and project-supplied award graphic.
- FlowBridge V30.2B production evidence and owner-frozen project records.