

Bitcoin Flux Whitepaper

Introduction

Bitcoin Flux is a sovereign-grade Bitcoin full node implementation designed for users who demand full control, transparency, and power. Built from the foundation of Bitcoin Knots v29.1, Bitcoin Flux introduces a suite of advanced tools and custom policies while remaining fully compatible with Bitcoin's consensus rules.

But this isn't just another node — **Bitcoin Flux is a statement:** a commitment to preserving Bitcoin as a monetary network by resisting spam, bloated data abuse, and non-financial use of block space. With Bitcoin Flux, you don't just run a node — you define how Bitcoin should operate **on your terms**.

Why Bitcoin Flux?

The Bitcoin network is under pressure from novel abuses of its scripting system: arbitrary data storage, Ordinals, inscriptions, and speculative token layers are filling up blocks and increasing costs for legitimate monetary use.

Meanwhile, node operators are given a false choice: - Run Bitcoin Core, and silently accept all behavior - Run Knots, with stricter defaults, but limited tooling

Bitcoin Flux is the third way. - It gives you **visibility**: see what kind of data flows through your node. - It gives you **power**: reject what you don't want to relay, store, or even see. - It gives you **flexibility**: choose how your node behaves — and change it anytime.

Vision

Bitcoin Flux is built for: - Sovereign users who care about privacy, bandwidth, and long-term sustainability. - Educators and researchers who want to analyze mempool activity. - Miners and businesses who want cleaner blocks. - Communities who believe Bitcoin is for money — not data dumping.

Key Features

Mempool Manager

- Real-time mempool viewer with graphs, filters, and entropy analytics.
- Visual indicators of spam, economic txs, and witness size.
- Toggle relay policies from the GUI: block inscriptions, Taproot abuse, BRC-20.

Block Policy Control

- Temporarily reject blocks containing spam (e.g., over 50% non-monetary data).
- Custom thresholds (e.g., up to 6 blocks deep) before catching up to tip.
- Optional "economic-only" mode: reject blocks that waste blockspace.

Vault and Key Tools (PlanB Vault Integration)

- Time-locked vaults for inheritance or disaster recovery.
- Encrypted key generation (BIP38, BIP39, BIP85).
- Sign and verify messages with advanced script paths (including Taproot optional).
- Dead man's switch logic: block-based timers, check-ins, and automated triggers.

Policy Profiles

- Choose from pre-configured node behaviors:
- "Core-Compatible"
- "Knots-Strict"
- "Economic-Maximalist"
- "Custom Sovereign Mode"

Filtered Storage Engine

- Strip and garbage collect known non-financial witness/script data.
- Avoid indexing or displaying arbitrary OP_RETURN or Taproot inscriptions.
- Optionally zero out spam content for privacy/legal safety.

Node Health & Analytics

- Real-time dashboard: fee markets, block purity, tx economic weight.
- Spam ratio tracker over time.
- Public stats sharing (opt-in): encourage miners to mine clean blocks.

Technical Overview

- **Backend:** C++ (based on Bitcoin Knots v29.1)
- **Frontend:** Qt-based native GUI, written in C++ (no JavaScript, no Tauri, no browser)
- **RPC Extensions:** Custom methods for vault creation, BIP38, spam score analysis, and relay policy control
- **Config File Additions:**

```
[flux]
reject_inscriptions=1
reject_taproot_data_abuse=1
spam_block_rejection_depth=6
filtered_storage=1
```

Security Model

- No JavaScript, browser engines, or Node.js
- Hardened relay and mempool policy
- Reproducible builds planned
- Follows time-tested Bitcoin Core development practices

- Offline-safe vault tools (QR backup, airgap flow support)

Philosophy

Bitcoin Flux doesn't force anyone to use a specific policy — it gives **you** the tools to choose.

You run a Bitcoin node to participate in consensus — but **that doesn't mean you must accept everything someone else wants to cram into your disk, bandwidth, or attention.**

Bitcoin Flux restores the sovereignty of the node operator.

Roadmap

Phase 1 (Completed) - Forked Bitcoin Knots v29.1 - Rebranded as Bitcoin Flux - Basic mempool filters implemented - Website and whitepaper published

Phase 2 (In Progress) - GUI dashboard for mempool/spam analysis - PlanB Vault GUI panel - Filtered storage engine

Phase 3 - Policy protest mode with temporary block rejection - Full analytics page and public node stats (opt-in) - Plugin system for extended node tools

License

MIT License

Get Involved

Website: <https://bitcoinform.org>

Email: hello@bitcoinform.org

GitHub: Coming Soon

Conclusion

Bitcoin Flux is Bitcoin, your way.

- No JS. No hype. No spam.
- Just sound money, strong tools, and sovereign code.

Run Bitcoin on your terms.

Run Bitcoin Flux.