
BLAZE COIN

Whitepaper · 2026 Edition

A 2014 script cryptocurrency that never stopped — vintage script, real mission, built to last. Still mining for over a decade, and rebuilt from the ground up for 2026.

Script PoW

30-second blocks

~2.065B max supply

Ticker: BLZ

Bitcoin Core 28 base

.NET 10 microservices

Live since 2014 | Reborn 2026 | blazecoin.co.uk

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This document describes Blazecoin 2.0 (2026). For the original 2014 whitepaper, see the historical edition.

1. Abstract

Blazecoin 2.0 is the revival of a script cryptocurrency first launched in 2014. Its original creator stepped away after the first few years, yet the chain kept producing blocks on its own for over a decade — a rare, real-world proof of decentralisation. In 2026 one independent developer picked it back up and rebuilt around it.

The chain itself now runs on a hardened **Bitcoin Core 28** base secured by **script** proof-of-work, while the surrounding ecosystem — block explorer, mining pool, payouts and wallet services — has been rebuilt on a modern **.NET 10 microservices** architecture. Fast **30-second** blocks, low fees and broad mining accessibility remain, alongside the fire-service heritage the project was named for.

Key highlights: Live since 2014 • 10+ years of uninterrupted blocks • Fire-service heritage • Script PoW • 30-second blocks • ~2.065B max supply • 1% genesis premine • Post-quantum signatures (ML-DSA-44) since block 4,250,000 • Modern .NET 10 microservices.

2. Historical Context: Still Running, Since 2014

Blazecoin launched on **23 May 2014** as a fast, lightweight script cryptocurrency with a fire-service theme — reflected in its name and in a **413 BLZ** block reward honouring Station 413. Its original creator stepped away after the first few years, and active development went quiet.

But the network didn't. With no company, no foundation and no core team steering it, the chain kept producing blocks — for **over a decade**. That accidental stress test is the best proof of Blazecoin's decentralisation we could ask for: it survived precisely because no single party was needed to keep it alive.

Reborn, not restarted. In 2026 a single independent developer picked up the still-running chain and rebuilt everything around it — modern node software on a hardened Bitcoin Core 28 base, a full .NET 10 microservices stack, fresh wallets, a mining pool and a block explorer. Same chain, same script heritage, same Station 413 reward — now with the tooling and active maintenance it never had the first time.

3. Introduction

3.1 The Problem

Many cryptocurrency networks struggle with slow confirmation times, high fees during congestion, complex tooling and a lack of real-world purpose.

3.2 Our Approach

- **Fast settlement:** a 30-second target block time with ~1-minute finality (2 confirmations).
- **Accessible mining:** script (memory-hard) PoW keeps mining open to GPUs and small-scale miners, not just industrial farms.
- **Low fees** supported by fast blocks and ample throughput.
- **User-friendly** wallet with OAuth social login on the web account.
- **Fire-service heritage:** named for the fire service, with a Station 413 block reward.
- **Proven resilience:** over a decade of uninterrupted block production since 2014.

4. Technology & Platform

4.1 Architecture

The Blazecoin 2.0 ecosystem wraps the chain in a modern .NET 10 / C# microservices architecture:

- **Blockchain core:** a Bitcoin Core 28-based daemon with script PoW and a UTXO ledger.
- **Indexer API:** high-performance transaction indexing, querying and analytics.
- **Gateway API:** a secure gateway for external integrations.
- **Identity service:** multi-provider OAuth authentication.
- **Mining Pool API:** Stratum coordination and reward accounting.
- **Payout service:** automated, matured-reward payouts to miners.
- **Email service:** transaction notifications and security alerts.

4.2 Blockchain specifications

Parameter	Value
Mining algorithm	Script (Proof of Work)
Block time	30 seconds
Confirmations	Receiver's choice — 60 (~30 minutes) recommended for exchange deposits while the network's hash rate is small
Difficulty retarget	Phoenix-413 — per-block ASERT, half-life 413 blocks (~3.4 h); active since block 4,194,000 (Aug 2026)
Max supply	~2,065,000,000 BLZ
Block reward	413 BLZ (annual halving)
Base layer	Bitcoin Core 28 fork
Transaction model	UTXO
Address format	Legacy Base58 B... (P2PKH, ECDSA) and post-quantum BQ... (P2PQH, ML-DSA-44 — NIST FIPS 204) since block 4,250,000; both spend side by side
Signatures	ECDSA (legacy) and ML-DSA-44 post-quantum — the network upgrade of September 2026; the pre-upgrade V1.5 client stopped at that block

4.3 Block Explorer & On-Chain Analytics

A full block explorer and deep analytics suite — powered by 20+ background indexer workers and pushed live over SignalR:

- **Explorer:** search blocks, transactions and addresses; inspect inputs/outputs, fees, confirmations and chain work; trace fund flow with a transaction-graph view; label known addresses.
- **HODL Waves & Coin Days Destroyed:** coin-age bands, liveliness, dormancy and supply-velocity analytics.
- **Supply:** live circulating supply, growth rate, address-concentration distribution and script-type breakdown.

- **Network analytics:** a network-health score, Gini coefficient, NVT ratio, coin velocity and active-address trends.
- **Mining-pool analytics:** per-pool hash rate, blocks found, market share, decentralisation (Herfindahl) index, pool luck and empty-block stats.
- **Security monitoring:** double-spend detection and reorg/orphan tracking with historical alerts.

4.4 Wallets

The original Windows desktop wallet (V1) has been rebuilt from the ground up as **V2.0** on .NET 10 MAUI (Blazor Hybrid), with a platform-independent core that a future lite / mobile wallet can reuse. Highlights:

- Send & receive with on-device QR generation and webcam QR scanning (BIP21 URIs), an address book and one-click *Send Max*.
- Accurate, dry-run fee estimation shown before you confirm.
- Wallet encryption, passphrase change, configurable auto-lock and cookie-based RPC auth by default.
- A virtualised transaction history with multi-criteria filtering and export to CSV, JSON, Excel and PDF.
- A hardened auto-payout engine (thresholds, batching, cooldowns, daily caps, dry-run by default).
- Built-in solo mining, multi-wallet / multi-instance support, legacy-wallet import with descriptor migration, and 19 animated skins.

5. Consensus Mechanism

5.1 Proof of Work

Blazecoin 2.0 secures the network with **script** Proof of Work and a modern, self-healing difficulty rule:

- **Mining algorithm:** Script (memory-hard PoW).
- **Difficulty adjustment: Phoenix-413** — recalculated every block on an ASERT exponential schedule with a half-life of 413 blocks. Active since block 4,194,000 (August 2026), the chain's first consensus change in twelve years — followed by the second, the post-quantum signature upgrade, at block 4,250,000 (September 2026). Difficulty finds its level again within hours of any hash-rate change, so the chain cannot be stranded by hash rate leaving.
- **Target block time:** 30 seconds.
- **Accessibility:** script keeps mining open to GPUs and community pools, not just industrial ASIC farms.

5.2 Network Security

- 51% resistance through distributed mining
- Automatic reorg detection and rollback
- Orphan block handling
- Double-spend monitoring and alerts
- Network-wide consensus validation
- Continuous chain-health scoring

6. Tokenomics

6.1 Supply

- **Max supply:** ~2,065,000,000 BLZ.
- **Mining:** ~99% issued to miners as block rewards over time.
- **Foundation premine:** 1% (~20,650,000 BLZ) minted in the 2014 genesis block — a historical allocation tied to the fire-service origins.
- **No ICO:** distribution is mining-based, apart from that single 1% genesis allocation.

6.2 Block-reward schedule

Phase	Blocks	Reward per block	Purpose
Genesis	0 – 1	20,650,000 BLZ	1% foundation premine (fire-service heritage)
Fair start	2 – 99	13 BLZ	Anti-instantmine ramp
Standard	100+	413 BLZ	Station 413 tribute; main issuance
Halvings	every 1,051,200 blocks (~1 year)	reward halves	Long-term scarcity

Note: ongoing block rewards go entirely to miners. The only premine is the 1% allocation in the 2014 genesis block; there is no ICO and no active foundation today (see §9).

7. Mining & Rewards

7.1 Pool

- Native **Stratum** server with per-miner variable difficulty (vardiff) that auto-tunes to each rig.
- **Proportional (PROP)** rewards — every miner is paid by their share-difficulty contribution to each block found.
- Low **1% pool fee**; blocks coinbase-tagged `blazecoin.co.uk`.
- Script share validation with duplicate-share protection and batched, high-throughput share storage.
- **Automated payouts** once rewards reach 100-confirmation maturity, with a configurable minimum-payout threshold and idempotent, double-pay-safe settlement.
- Real-time hash-rate, share and payout statistics — in the wallet and on the website's pool dashboards.

7.2 Solo vs Pool

Solo mining

- Keep 100% of block rewards
- Higher variance, supports decentralisation

Pool mining

- Consistent, predictable rewards
- Accessible to small miners; 1% pool fee

8. Security

8.1 Network

- Real-time double-spend monitoring and alerts.
- Automatic reorg detection and rollback; graceful orphan handling.
- Multi-layer transaction validation before acceptance.

8.2 Wallet

- **Post-quantum signatures:** since block 4,250,000 (September 2026) coins can be held at BQ... addresses signed with ML-DSA-44 (NIST FIPS 204), so a future quantum computer that breaks ECDSA cannot spend them; every wallet makes BQ addresses by default.
- HD / descriptor wallets (inherited from the Bitcoin Core 28 base).
- Two-factor authentication (2FA) with recovery codes.
- Multi-provider OAuth sign-in.
- Email security alerts on sensitive account actions.

9. Fire-Service Heritage

9.1 Where the name comes from

Blazecoin was conceived in 2014 around a fire-service theme. That inspiration gave the project its name, its flame branding and the symbolic **413 BLZ** block reward — a nod to Station 413. We keep that heritage front and centre, because it's what makes Blazecoin *Blazecoin*.

9.2 Honestly stated

To be clear: there is no active Blazecoin Foundation today, and the project makes no promise of grants or donations. The original 2014 vision of a fire-service funding arm never materialised after its creator left. What endures is the heritage — the name, the flame and the Station 413 reward — and a chain that proved it could survive entirely on its own. Should the revived community ever choose to stand up a charitable arm, a decade of brand history and the genesis allocation give it a real foundation to build on.

10. Development Roadmap

Phase 1 — Foundation (complete): core blockchain, mining software, basic wallet, block explorer.

Phase 2 — Ecosystem (current): V2 mainnet on Bitcoin Core 28 (script); V2.0 Windows wallet (.NET MAUI); OAuth login; mining pool, automated payouts and explorer; the Phoenix-413 difficulty fork (block 4,194,000, Aug 2026); post-quantum ML-DSA-44 signatures (block 4,250,000, Sep 2026); Android and in-browser web wallets with trustless chain verification. Planned: iOS wallet and app-store distribution, exchange listings and payment-gateway partnerships.

Phase 3 — Public launch & growth: the public platform on blazecoin.co.uk (explorer, pool, analytics), official community channels, earn and rewards features, an independent second mining site and expanded node distribution.

Phase 4 — Future: merchant payment gateway, community governance, device (IoT) payments and enterprise integrations as separate layers on the chain; Lightning-style scaling and optional privacy features under study. There is no general-purpose smart-contract machine on the chain, and none is planned.

Forward-looking items are goals, not commitments, and may change.

11. Team & Community

Blazecoin 2.0 is built and run by one independent developer — the node software, the wallets, the mining pool, the website and the infrastructure behind them — with all code publicly available on GitHub. There is no company, no foundation and no paid team. The project is committed to decentralisation and open development; contributors are welcome through the same public repositories.

Operating since 2014	Block time 30 seconds	Heritage Fire service	Source 100% open
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12. Conclusion

Blazecoin 2.0 pairs a proven, decade-old script chain with a modern, fully rebuilt ecosystem. Fast 30-second blocks, accessible mining, low fees and a transparent on-chain analytics suite make it practical for everyday

use, while a genuine comeback story — a chain that ran for years with no one steering it — demonstrates real decentralisation.

The project carries its fire-service heritage forward honestly, builds in the open, and aims to grow steadily on solid technical foundations.

Get involved: run the wallet, mine on the pool, explore the chain, or contribute on GitHub (github.com/AMA-CSharp-Code).

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Cryptocurrency carries risk; do your own research. "From the ashes of the old, blazes the future."