Research

Whitepapers *& technical research.*

The protocol on paper: post-quantum consensus, payment channels, the cross-chain gateway, and the regulatory filing. Every paper is built on post-quantum signatures: **lattice-based ML-DSA-44 (NIST FIPS 204)** on-chain, hash-based XMSS-Lite in cross-chain custody.

Read the L2SOQ paper All papers

§ 01 · The papers

01

Payment channels · v1.1 draftL2SOQ: A Post-Quantum Payment Channel NetworkRead online

Archived copy · cryp2nova.com

eLTOO channels with ML-DSA-44 co-signatures over Soqucoin L1. A measured 1,710 end-to-end payments/sec per node, quantum-safe at every layer. Benchmark methodology, scaling, and security model.

→ 02

Core protocol · PDFSoqucoin: Production Post-Quantum Proof-of-WorkPDF

The core technical specification: Dilithium ML-DSA-44 signatures, the Practical Attestation Technique (PAT), LatticeFold+ batch verification, and the Scrypt proof-of-work consensus.

↓ 03

Cross-chain gateway · PDFpSOQ Gateway AddendumPDF

SOQ-TEC quantum-safe custody, the XMSS-Lite Revolving Vault, Quantum Express bridging, and the 1:1 pSOQ ↔ SOQ peg.

↓ 04

Regulatory · PDFMiCA Crypto-Asset WhitepaperPDF

EU Regulation 2023/1114 (Annex I) crypto-asset whitepaper, Parts A–J, prepared for National Competent Authority submission.

↓

§ 02 · At a glance

Signature algorithm	ML-DSA-44 NIST FIPS 204 · from genesis
Signature size	2,420 bytes
Classical crypto in consensus	None ECDSA/secp256k1 removed
Consensus	Scrypt PoW + AuxPoW
Block time	~60 s
L1 security audit	Halborn 30/30 remediated

§ 03 · Citation

Wilson, C. (2026). Soqucoin: A Production Post-Quantum Proof-of-Work Cryptocurrency with LatticeFold+ Verification of Dilithium Batches. https://soqu.org/whitepaper.html

Archived copy · cryp2nova.com

These papers describe a system under active development. Soqucoin stagenet is live and not mainnet; figures and parameters may change before launch. For research and informational purposes, not financial advice.
Soqucoin

A post-quantum proof-of-work Layer 1. Stagenet is live and in active development, not mainnet, not audited for real value.

Build

PlaygroundSDK & docsDocumentationInstitutions

Network

MineSOQUPOOLGitHubWhitepaper

Ecosystem

FoundationLabsSOQ-TEC GatewaysPQCAT scanner
Soqucoin Labs Inc. · 228 Park Ave S, PMB 85451, New York, NY 10003 Legal · Stagenet preview

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