



Silent Shard

Key-management & post-quantum readiness
for financial market infrastructure



Banks & FIs



Stablecoin payments



Digital asset custody



Tokenized assets

Learn about our
enterprise-grade quantum
secure MPC solution



Silent Shard: Bank grade infrastructure for Digital Asset Custody

Silent Shard enables financial institutions to secure digital assets by distributing signing authority across independent key shares, ensuring no device, server or operator ever holds the complete private key while institutions retain full control of their infrastructure.

Built on high-performance MPC-TSS and post-quantum threshold cryptography using NIST-standard ML-DSA, Silent Shard introduces quantum-resistant signing into existing custody workflows while preserving on-prem deployment, policy enforcement, auditability and operational resilience.

10M+

Keys & secrets protected

\$10B+

Value of assets protected.

50+

Countries served by partners & clients

Why Banks & FIs choose Silent Shard

On-prem with full code access Deployed on-prem on bank infrastructure with full code access. Aids in risk assessment, as well as regulatory and compliance requirements.	Superior performance Fastest MPC-TSS protocol in production, supporting full spectrum of configurations and billions in assets.	Quantum proof Research led team, developed new post-quantum protocols, continuous improvements to current libraries.	World class team Research led team, developed new post-quantum protocols, continuous improvements to current libraries.
Wide config range Choose any t / n MPC network setup, work with key shards in any user device, cloud setup or HSM etc. Multiple backup and recovery options.	Enterprise support Global team providing expert support. Fully managed integration. Cryptographically secure migration.	InfoSec ready  SOC 2 TYPE II CERTIFIED 	Best-in-class audits 

SILENT SHARD IS TRUSTED BY INDUSTRY LEADERS

 US based GSIB

 BitGo

 Infosys

 THALES

 CØSMOS

 BIS

 zengo

 Chainlink

 Vultisig

 NPCI
NATIONAL INSTITUTE OF CREDIT COUNCIL OF INDIA

 Salt

 MetaMask

 Bionomy

 EASyCRYPTO
powered by swyftx

 okto
powered by CURE53

 router

 NFH
NETWORKS FOR HUMANITY

 Eigen Labs

 Cantellat

 Finternet

 BRON

Silent Shard is built for banks & FIs

Bank grade Distributed Cold Storage (MPC + HSM) solutions

Single HSM wallet

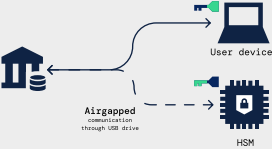
Traditional cold wallet



HSM

Hybrid HSM wallet

Device + HSM MPC



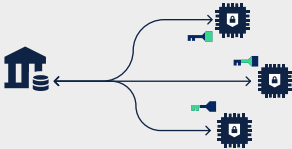
User device

Airgapped communication through USB device

HSM

Multi HSM wallet

M of N HSM MPC Threshold



Fully air-gapped

Signed message hand-carried on USB; no NIC in loop.

System air-gapped

"Data-diode; one-time VPN opened after quorum.

Private network

Standing gated VPN mesh; whitelisted subnet + firewall rules.

Online

Permanent VPN; requests cryptographically gated by quorum keys.

Enterprise policy engine

Web Console

API Interface

Transaction Decoder

External Signal Fetch

Approval Orchestration

Policy Evaluation

Reporting Engine

Signing Handoff

Policy Database

Comprehensive support



Co-design

Work directly with cryptographers & solutions architects to co-design your MPC quorum and review the complete security architecture.



Managed integration

Get hands-on configuration, functional and security testing, and cryptographically secure migration for a zero-downtime launch.



Continuous support

Access dedicated local engineers, on-site assistance, enterprise SLAs and 24x7 coverage from globally distributed teams.

SILENCE
LABORATORIES

silencelaboratories.com

PQ-MPC

First production ready post-quantum MPC wallet
built on NIST approved ML-DSA signature scheme
for enterprise digital asset custody

In May 2026, Silence and BitGo completed the first post-quantum MPC transaction simulation executed by a regulated custodian.

It proves a path the whole industry needs: institutions can adopt NIST's ML-DSA standard inside existing MPC custody workflows, with no change to how assets are held.

Algorithm

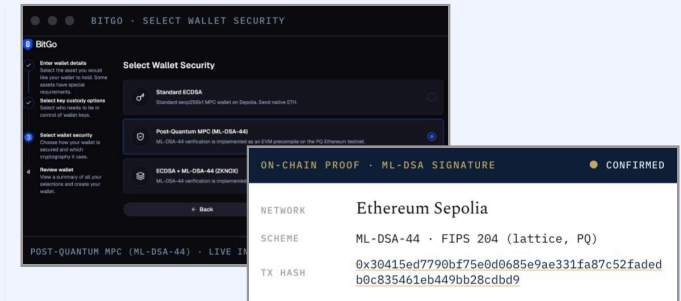
CRYSTALS- Dilithium

Setup

2 / 2 Phone + server

Compute time

100 - 150ms



“Quantum computing has moved from theoretical discussion to an infrastructure planning priority for the digital asset industry. Institutions are asking how they can prepare without compromising security, control, or operational resilience.”

Mike Belshe
CEO, BitGo

Threshold Post-Quantum Cryptography

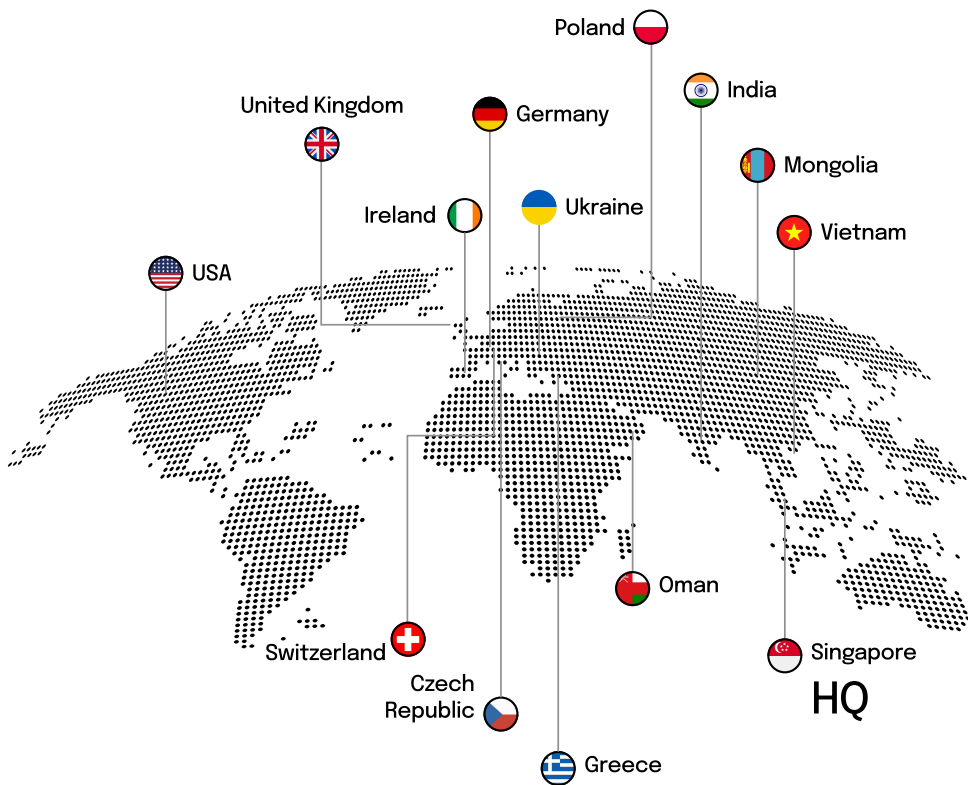
Multiple parties generate ML-DSA signatures using independent secret shares, so the private key is never reconstructed.

Secure Enclaves & Hardware Isolation

Each key share is generated, stored, and used exclusively within hardware-isolated, encrypted memory regions (Intel SGX, ARM TrustZone).

Transaction Intent Verification

Before any signature is created, each MPC node independently verifies the transaction against immutable policies.



Silence Laboratories is led by a world-class team of Computer Science PhDs, with academic ties to MIT, NUS, UIUC, SUTD, and IITs. Our tech development center is in Eastern Europe and R&D is based in Boston, and our global business team is headquartered in Singapore.

ACADEMIC AND BUSINESS AFFILIATIONS



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