



**THE
CRYPTO-ASSET
CUSTODY
INFRASTRUCTURE
FOR FINANCIAL
INSTITUTIONS**

A product by  **METACO**[™]

A LOOK INTO DIGITAL CUSTODY

With cryptocurrency trading volumes and asset tokenization increasing, the capital market has shown a booming appetite for integrating crypto-assets into the wealth management portfolio in a comprehensive and seamless manner.

Crypto-assets rely on digital keys to prove ownership and authorize transfers. Keeping these keys secure is essential to guaranteeing the integrity of the funds: if lost or stolen, so is the asset. To address this concern, technology providers have explored software and hardware mechanisms to secure safe custody. However, since not conceived to blend into enterprise's systems, overall security schemes and processes, these solutions have remained largely inadequate for institutions.

This explains why financial institutions have not been able to join the burgeoning crypto-asset market. Beyond security, a bank-grade crypto-asset custody infrastructure must be reliable, seamless and enable the custodian to address compliance and fraud.

HOW METACO CAN HELP

Developed in collaboration with leading defense supplier Guardtime, METACO has introduced SILO, the crypto-asset custody infrastructure specifically designed to meet the requirements of financial institutions: FUNCTIONALITY, SECURITY, INTEGRATION and RELIABILITY.

SILO, the crypto-asset custody infrastructure for financial institutions.

With its perfect blend of ultra secure and fit-for-purpose hardware and software, Swiss engineered SILO enables custodians to seamlessly integrate crypto-assets into the business operations in an exceptionally secure, reliable and scalable manner.

With SILO, custodians can:

- ✓ Deploy an ecosystem of connected hot wallets and manually-operated cold wallets which support multiple crypto-assets and security protocols
- ✓ Segregate SILO users into multiple roles with strict access rights
- ✓ Manage and monitor wallets, transactions and balances in a unified environment blended within the banking system

While benefiting from SILO's unique:

 <p>UNMATCHED SECURITY AND FUNCTIONALITY:</p> <ul style="list-style-type: none"> ✓ Security-by-design infrastructure ✓ Strict key management ✓ Complete wallet management ✓ Strong security protocols 	 <p>SEAMLESS INTEGRATION:</p> <ul style="list-style-type: none"> ✓ Integrated into main core banking systems ✓ Full set of APIs for integration into any software platform 	 <p>RELIABLE ENVIRONMENT:</p> <ul style="list-style-type: none"> ✓ Fault-tolerant cluster configurations ✓ Multi-data center capability
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Francisco Fernandez
CHAIRMAN AT AVALOQ

"With Metaco, our aim is to help the financial sector with the opportunities and challenges of blockchain technology by offering outstanding solutions in the field of distributed ledger, cryptocurrencies and digital assets"

WHAT MAKES SILO UNIQUE?

UNMATCHED BLEND OF SECURITY AND FUNCTIONALITY

SILO is a fully integrated, hot-to-cold crypto-asset custody infrastructure. Tested under the most hostile conditions, it is able to withstand the most dangerous cyber and physical attacks, catastrophic events and geopolitical risks. Created for the financial industry, SILO offers a broad range of features facilitating the management of crypto-assets in a corporate environment.

SECURITY-BY-DESIGN INFRASTRUCTURE

- ✓ NIAP-certified tamper-proof hardware by Guardtime delivers military security of boot and runtime environment
- ✓ Advanced dynamic protection blocks malware, in-memory and side-channel attacks
- ✓ Hardware-enforced protocols including multi-signature and loss limitation policies protect all transactions from mistakes and attacks

COMPLETE WALLET MANAGEMENT

- ✓ Scalable platform reaches thousands of segregated wallets with specific access and security policies, and multiple addresses per wallet
- ✓ Flexible configuration supports fully automated and manually-operated wallets as well as air-gapped keys
- ✓ Monitoring of distributed ledgers provides real-time status of balances and transactions

SEAMLESS INTEGRATION

- ✓ Full integration within Avaloq, Swisscom and Temenos core banking systems allows the smooth and cost efficient deployment of crypto-assets into banking processes
- ✓ Complete HTTP REST API facilitates integration within any software stack

STRICT KEY MANAGEMENT

- ✓ Cryptographically secure random number generator ensures the highest level of entropy for master keys
- ✓ Encrypted, offline back-up of master keys guarantees total resilience to disasters
- ✓ Deterministic derivation of additional keys enables on-the-fly creation of wallets and full recovery in case of loss or destruction

STRONG SECURITY PROTOCOLS

- ✓ Multi-signature transaction approval enables the application of the four-eyes principle
- ✓ Loss limitation policies secure all wallets from cold to hot storage to maximize agility and security
- ✓ Role-based access policies to the platform limit the threat vector associated to each user

RELIABLE ENVIRONMENT

- ✓ Fault-tolerant cluster configurations accommodate highly available applications
- ✓ Multi-data center capability prevents downtime in case of disaster

WALLET FEATURES:



MULTI-SIGNATURE SCHEME

Single-signature, 2-by-3, 3-by-5 or custom defined



DENOMINATION

Bitcoin, Bitcoin alts, Ethereum and ERC-20 tokens



LOSS LIMITATION POLICIES

Velocity limits, white-listing, time-locking



Ben Robinson
CHIEF STRATEGY
OFFICER AT TEMENOS

“METACO offers the best, most secure platform for banks wanting to provide cryptocurrency services”



ABOUT METACO

METACO is a Swiss-based blockchain expert and leading provider of ultra secure, fit-for-purpose distributed ledger infrastructure for financial institutions and enterprises.

Established in 2014 with the objective to explore and design cryptographic solutions, METACO took the Fintech crypto-wallet market by a storm with the launch of SILO (Spring 2018), the world's first crypto-asset custody infrastructure for financial institutions.

Founded by Adrien Treccani Ph.D. (blockchain and quantitative finance expert) and Nicolas Dorier (renowned bitcoin developer and contributor), METACO counts not only with a team of industry experts and proficient software engineers, but also international leading partners and multiple institutional shareholders.

EXECUTIVE TEAM



Adrien Treccani, Ph.D.
CO-FOUNDER & CEO



Vincent Kobel
COO



Nicolas Dorier
CO-FOUNDER & CTO



Seamus Donoghue
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ABOUT GUARDTIME

Guardtime is a systems engineering company, working together with governments and the business sector in order to provide with cybersecurity solutions which maximize trust, integrity and accountability. Its products enable every network, component, configuration and digital asset to be tagged, tracked and located with real-time integrity information.

Guardtime's Black Lantern® hardware is an interface between the organization's operational environment and the blockchain, designed to survive in the most austere environments. Using active-defense measures, Black Lantern protects itself and the network from a growing arsenal of nation-state cyber threats, threats to/from uncontrolled physical assets and insider threats.

SHAREHOLDERS



PARTNERS



SILO, THE CRYPTO-ASSET CUSTODY INFRASTRUCTURE FOR FINANCIAL INSTITUTIONS

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