Kaleido
Tokenize Assets at Institutional Scale with Kaleido & Hyperledger Technologies

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Global Leaders
Choose Kaleido
Global leaders choose Kaleido for web3

The Challenge
- Fragmentation leading to ‘digital islands’ springing up across the globe
- Businesses and consumers aren't currently able to make frictionless cross-border payments using CBDCs
- Different systems and different CBDCs will need to be able to efficiently work together

The Solution
- Integrated tokenized CBDC gateway for the industry

The Results
- Orchestrated a cross-border transaction between one entity on a DLT-based CBDC network and a second running on an established real-time gross settlement (RTGS) system
- Interlinking the multiple domestic-based CBDC networks emerging worldwide to make cross-border payments with CBDCs seamless Read the whitepaper
## Why Tokenize Assets

<table>
<thead>
<tr>
<th><strong>Increased Liquidity</strong></th>
<th><strong>Global Markets</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Fractionalized assets increases liquidity and accessibility to investors</td>
<td>24/7 markets increase potential investor base and allow access to a larger market</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Faster Settlement Times</strong></th>
<th><strong>New Financial Products</strong></th>
</tr>
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<tbody>
<tr>
<td>Smart contracts may automate certain aspects of transactions, reducing the need for intermediaries &amp; speeding up transactions</td>
<td>Tokenization may unlock new products such as dynamic ETFs, fractional real estate, fractional art, insurance policies, lending, commodities, and more</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th><strong>Record Keeping</strong></th>
<th><strong>Compliance</strong></th>
</tr>
</thead>
<tbody>
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<td>Digital ledgers streamline record-keeping and accounting, potentially eliminating the need for reconciliation.</td>
<td>Codify regulatory compliance to ensure only eligible investors participate</td>
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<tr>
<th><strong>Fee optimization</strong></th>
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</thead>
<tbody>
<tr>
<td>Save on processing fees from intermediaries with automated transactions through smart contracts</td>
</tr>
</tbody>
</table>
Build Web3 apps without reinventing the wheel

FireFly’s gen2 approach eliminates custom code and plumbing

Without FireFly

You build and update

- Business Application
- Tokens
- Events
- Messaging
- Doc Mgmt
- Data Orchestration
- Blockchain Node

Web3 connections

Encrypted File + Data Bus

With FireFly

You build

- Business Application

Web3 connections

Encrypted File + Data Bus

Chains

Community build and update

Onboarding

Identity

Privacy

Data Mgmt

Data Mgmt

Chains
Tap into a diverse set of custodial key management options

**Kaleido Hosted**
- Wallets hosted in your Asset Platform instance
  - HD Wallet
    - Simple and secure native wallet service
    - Portable and offline mode

**Cloud Service**
- Keys stored in services in your cloud account
  - AWS CloudHSM
  - AWS KMS
  - Azure KeyVault
    - Manage keys off Kaleido platform
    - Securely integrated

**3rd Party**
- Wallets hosted by third party technology
  - Fireblocks
  - Hashicorp Vault
    - Use popular 3rd party technologies
    - Enables MPC options

**Plugin you own**
- Connect any keystore with a standard API wrapper
  - Any keystore
  - Any PKCS11 HSM
    - Ready to plug in to any PKCS11 HSM
    - Store keys on premise
A complete, multi-layered policy engine

Identity Management
Services Authorization
Custody Management
Transaction Management

Authentication and Identity
Service level authorization
Transaction signing
Transaction Submission

Policy Engine
Policy Engine
Policy Engine
Policy Engine
Policy Engine

File collections
Data sharing
Data management
Publish, broadcast and point to point

Coarse grained
Fine grained

Connector
On chain
Off chain
# Evolving Tokenization Standards

<table>
<thead>
<tr>
<th>ERC-20</th>
<th>ERC-721</th>
<th>ERC-1155</th>
<th>ERC-140X</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Description:</strong></td>
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</tr>
<tr>
<td>Fungible token or the ability for a token to be exchanged for something of the same value.</td>
<td>Non-Fungible token (NFT) or the ability to represent a unique one-of-a-kind assets.</td>
<td>Smart contract interface that can represent any number of fungible and non-fungible token types</td>
<td>Custom security tokens standard with built in regulatory and compliance requirements</td>
</tr>
<tr>
<td><strong>Potential Uses:</strong></td>
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<td><strong>Potential Use:</strong></td>
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</tr>
<tr>
<td>- CBDCs</td>
<td>- Real estate</td>
<td>- Fractionalized real estate</td>
<td>- Equity</td>
</tr>
<tr>
<td>- Commodities</td>
<td>- Art</td>
<td>- Fractionalized art</td>
<td>- Bonds</td>
</tr>
<tr>
<td>- Stocks</td>
<td>- Intellectual property</td>
<td>- Fractionalized stocks</td>
<td>- Loans</td>
</tr>
<tr>
<td>- Funds</td>
<td>- Collectibles</td>
<td>- Fractionalized bonds</td>
<td>- Royalty tokens</td>
</tr>
<tr>
<td>- Loyalty points</td>
<td>- Carbon credits</td>
<td>- Alternative assets</td>
<td>- Pre-IPO shares</td>
</tr>
<tr>
<td>- Stablecoins</td>
<td>- Luxury goods</td>
<td>+ more</td>
<td>- Security token offerings</td>
</tr>
</tbody>
</table>

+ more

+ other ERC standards or custom token smart contracts
Enterprise Grade Compliance

SOC 2 Type 2 (Security, Availability, Confidentiality)

Kaleido is SOC 2 Type 2 certified for managing customer data across three trust service principles.

ISO 27001, 27017, and 27018 Certified

Kaleido is ISO certified for security and business controls.

Enterprise Quality Comes Standard

Build enterprise ready networks on the most proven platform with built-in HA/DR and automatic failover, performance, secure network isolation, environment metric dashboard, SLAs and dedicated 24×7 support available.

Advanced Key Management

Secure options for hosted and self-hosted key custody.
Get in Touch

Schedule a Free Consultation

Try Kaleido Free
https://console.kaleido.io/signup

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