

DataSov

Digital ID and Data Sovereignty via Hybrid Blockchain

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Agenda

- 1 The Problem: The Data Control Crisis
- 2 Solution: DataSov - The Hybrid Data Sovereignty Model
- 3 Core Architecture & Cross-Chain Flow
- 4 Component Deep Dive (Corda / Solana)
- 5 Future Vision & Business Model
- 6 Conclusion & Q&A

The Problem: The Data Control Crisis

- **Centralized Data Silos**: User data is centrally managed, resulting in a lack of ownership and financial return for the individual.
- Privacy-Monetization Trade-off: Protecting privacy often prevents data utilization and monetization.
- Inefficient Data Access: Businesses lack access to trustworthy, **high-quality data** due to privacy concerns.

Solution: DataSov - The Hybrid Data Sovereignty Model

DataSov: The Hybrid Data Sovereignty Model

Balancing Trust (Corda) and Performance (Solana)

Corda (Identity Layer) - Enterprise Trust

- **Secure Digital Identity (DID) Management**
- Handles KYC Verification and Access Control logic
- Meets enterprise security and regulatory compliance demands

Solana (Data Marketplace Layer) - Market Efficiency

- Tokenizes anonymized personal data as NFTs
- Enables high-speed, low-cost data trading
- Provides **efficient marketplace functionality**

DataSov: Core Architecture

The four-step process connecting identity and data transactions

- 1 Identity Foundation (Corda):** User registers and is verified via KYC on the Corda network
- 2 Proof Validation (Bridge):** Corda generates a cryptographic Identity Proof that the Solana network validates via a secure bridge
- 3 Data Tokenization (Solana):** Anonymized data is tokenized as an NFT and listed on the marketplace for trading
- 4 Access Synchronization:** Changes to identity or access permissions on Corda **automatically update permissions on Solana**

Corda: Enterprise-Grade ID & Access

- **Digital Identity (DID) & KYC**: Secure registration and verification using methods like NTT DOCOMO User ID or Government IDs
- **Privacy Preservation**: All sensitive personal data is encrypted and only selectively disclosed based on user consent
- **Granular Access Control**: Users set detailed permissions for data consumers, specifying data types (e.g., Location History) and expiration (e.g., 30 days)
- **Enterprise Security**: Built on Corda's permissioned network with an **immutable audit trail** for compliance.

Solana: High-Performance Data Marketplace

- Data Tokenization: Convert anonymized personal data (Location History, App Usage, Health Data) into tradable **NFTs**
- High Performance: Leverages Solana's capability for 65,000+ TPS and **low transaction fees** (\$<0.001\$) for efficient data trading
- Automated Fee Distribution: Marketplace fees (default 2.5%) are automatically collected and the remaining revenue is instantly distributed to the data owner
- Verified Data Quality: All data originates from Corda-verified identities, ensuring **trust and quality for consumers**.

Demo: The Data Sovereignty Walkthrough

A user's seamless journey from identity verification to monetization and control

- ID Verification: Corda registers and **KYC-VERIFIES** a user identity.
- NFT Listing: Solana creates a Location Data NFT linked to the verified ID.
- Data Trading: A consumer purchases the NFT, and the owner **instantly receives the payment** minus the fee.
- Revocation: User revokes access on Corda, automatically **invalidating related Solana permissions**.

02

Future Vision & Business Model

Future Vision: Roadmap

Continuous improvement in security and functionality



Business Model: Revenue Streams

Primary Revenue: Marketplace Transaction Fees

A transaction fee (e.g., 2.5%) is collected on all data trades on Solana. Revenue scales directly with market liquidity.

Secondary Revenue: Enterprise Services

Licensing, integration, and maintenance fees for incorporating the Corda component into large enterprise or **governmental systems**.



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