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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.

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Solution: DataSov - The Hybrid Data Sovereignty Model

DataSov: The Hybrid Data Sovereignty Model

Balancing Trust (Corda) and Performance (Solana)

Corda (Identity Layer) - Enterprise Trust	Solana (Data Marketplace Layer) - Market Efficiency
• **Secure Digital Identity (DID) Management**	• Tokenizes anonymized personal data as NFTs
• Handles KYC Verification and Access Control logic	• Enables high-speed, low-cost data trading
• Meets enterprise security and regulatory compliance demands	• 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**.

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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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