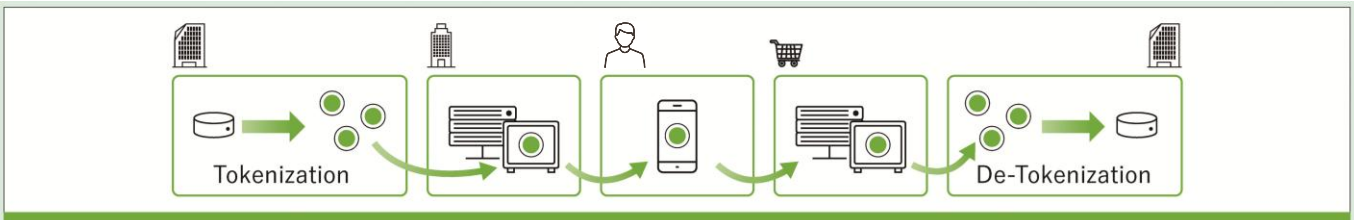
#E05
#Digital Infrastructure #Regional Revitalization
#Digital Transformation #Resilience

Enables secure transfer of digital values such as currency and securities between two parties

Transfer Protocol for digital tokens

Background and Technical Challenges

Current payment systems has challenges with their reliance on ledger systems, such as cost and load concentration for large numbers of users, siloed service, high costs for publishing APIs, rigidity in programmability and change, and the need for online connections that limits service continuity in the event of a large-scale disaster.



現金の様な転々流通性を具備したデジタル通貨を実現
Realize a digital currency equipped with cash-like transferability.

○ 特徴

- ふるまいを自由に設計出来るデジタル通貨
  (A programmable digital currency whose behavior can be freely customized)
- 特定プラットフォームに依存しない決済の実現
  (Achieving platform-independent payments)
- 大規模システム不要・広域災害への耐性
  (Eliminates the need for massive infrastructure and Capable of withstanding large-scale disasters)

○ 関連技術

- 強固な鍵管理 (Secure Key Control)
  E01「強固な鍵管理によるデータセキュリティ技術
  Data security technology with robust KMS」
- セキュアNW基盤 (Trusted NW Platform)
  E02「安全性を検証可能なサービス実行環境
  A verifiably secure service execution environment」
- 安全なウォレット (Secure Wallet)
  E03「秘密分散型トラストウォレット
  Secret-Sharing-based Trust Wallets」

R&D Goals and Outcomes

Next-generation infrastructure that enables the safe and secure distribution of various digital values such as digital currencies (CBDC, stablecoins, etc.) and tokenized assets. (reducing the capital costs of digital currency services and ensuring resilience to large-scale disasters)

Key Technologies

01 Core Technologies

A unique protocol that expresses value as data with a digital signature, signs it when it is issued or used, and verifies its authenticity when it is received. This enables the transfer of digital value only between user devices.

02 Key Differentiators

No ledger management is required, and independent tokens can be distributed directly between devices. This significantly reduces equipment costs, eliminates silos caused by ledger reliance, and enables highly flexible programmability.

Use Cases	Payment by digital currency token Prevention of ticket resale	**R&D phase**	Development
Technology Schedule	FY26	**Commercialization Schedule**	FY28

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