Decentralized Management of Consent in Finance Applications

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Why the financial institution need customer's consents?

- *"Open banking will expand traditional banking data flows, placing the customer at its core and in control of their banking data, including their personal information"* – *Deloitte – Open banking privacy at the epicenter*

- *"Open banking generally refers to the ability for banking customers to authorize third parties to access their bank account data to either collect account information or to initiate payments"* – *KPMG - Open banking opens opportunities for greater customer value*

- *"When properly implemented in harmony, PSD2 and GDPR enable banks to better protect and serve consumers, move beyond compliance and to seize new opportunities for growth". - Ernst & Young - How banks can balance GDPR and PSD2*
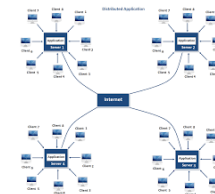
What is Consent Management?

- **Consent management** is the process of managing consents from the customers for processing their personal data.

- Consent Management enables the **tracking, monitoring and management** of the **personal data lifecycle** from the moment of opt-in to the data erase in a **GDPR compliant manner**.

- It improves **customers' control over their data,** enabling their **right to provide (or withdraw) consent** which allows authorised parties to access their personal and business information and its immediate effect.

- **It enables granular permission consent,** a **key enabler of trust** which is vital to **maximise data sharing** and ensure customers are **comfortable with sharing data**

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Digital Consent Management Systems

'Digital consent management' lies at the heart of any possible solution for the challenges ahead – Euro Banking Association – Open Banking Working Group

Digital Consent Management System (CMS) types:

- **Standalone & Centralized CMS:** Based on a centralized consent repository (utilizing data storage modalities like Relational DBs or NoSQL solutions) with a User Interface for the Consent Management lifecycle.

- **Integrated & Centralized CMS:** A solution that is integrated into existing organisation systems (like CRMs) that utilise the centralized repository of existing systems to provide the required consent repository & Consent Management lifecycle.

- **Distributed (Federated) CMS:** A solution where different components or instances reside in a number of locations and the various distributed instances are synchronized over the network.

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Blockchain-enabled Consent Management System - A key driver for novel financial services

Traditional technologies **failed** to become a key enabler of trust (**multiple security / data tampering incidents**)

The role of blockchain:

- A compelling technology to **overcome** the underlying **challenges of trust improvement** due to its **decentralised nature** and **immutability**, due to impossibility of ledger falsification

- Provides **extensibility**, **scalability**, **confidentiality**, **flexibility** and **resilience** to attacks or misuse

- Transaction records are **immutable** and **reserved forever**. **Full transactional history** is maintained and all records are **cryptographically secure**.

- Blockchain guarantees the **integrity, transparency** and **trustworthiness** of **data**

Blockchain-enabled Consent Management System

Our solution:

- A **decentralised** and **robust** blockchain-enabled consent management mechanism, that will **enable** the **sharing of the customers' consent** to **exchange** and **utilise** their **customer data** across different banking institutions

- It enables the financial institutions to **effectively manage** and **share** their **customers' consents** in a **transparent** and **unambiguous** manner

- It is capable of **storing** the consents and their **complete update history** with complete consents' versioning in a **secure** and **trusted** manner

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Blockchain-enabled Consent Management System

**Consent Management lifecycle management**
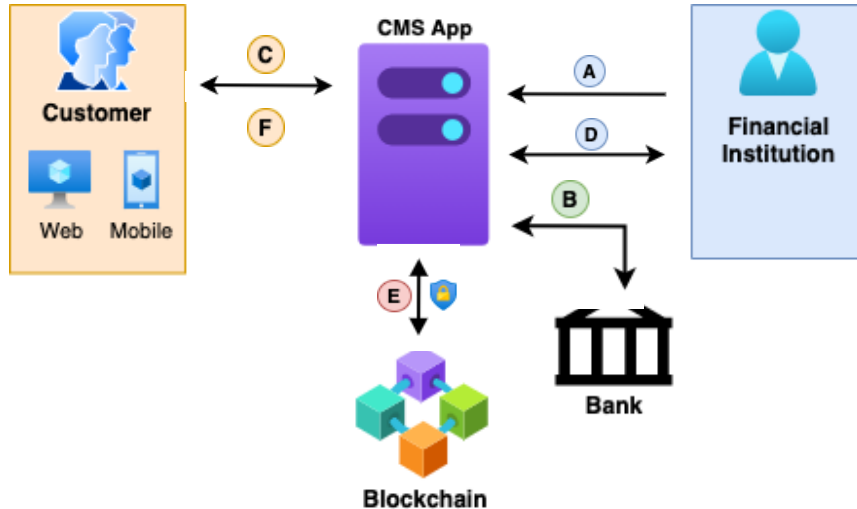
Consent Creation	
A	The consent of the customer is requested
B	Bank pre-approves the request
C	Customer receives, reviews and digitally signs the consent
D	Financial institution reviews and digitally signs the consent
E	Digitally singed consent is written in Blockchain
F	Customer can update / withdraw a consent or retrieve the complete history of consents at any point

✓ Ensures compliance to PSD2 & GDRP
✓ Facilitates complete consent management lifecycle management
✓ Increases trust and ensures security
✓ User friendly and easy to use

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Blockchain-enabled Consent Management System

Data Sharing Access Control
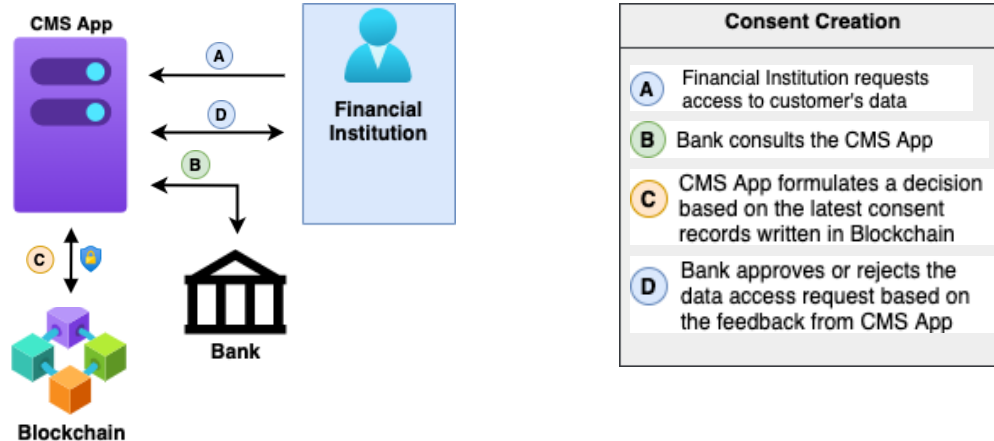
- ✓ Facilitates the effective access control aspect of the data sharing process
- ✓ Enables the options for industry collaboration & innovative financial services
- ✓ Lowers the barriers of secure data sharing
- ✓ Improves data accessibility in a trusted manner