

Lesson 5: Open Banking

Mini-Lecture Version (30 min)

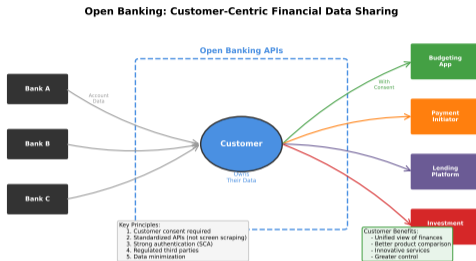
Digital Finance

Learning Objectives: Understand key concepts and applications

Open Banking Revolution

Data Sharing Paradigm

- Customer-permissioned access
- Standardized APIs
- Third-party innovation
- Regulatory mandate (EU, UK)

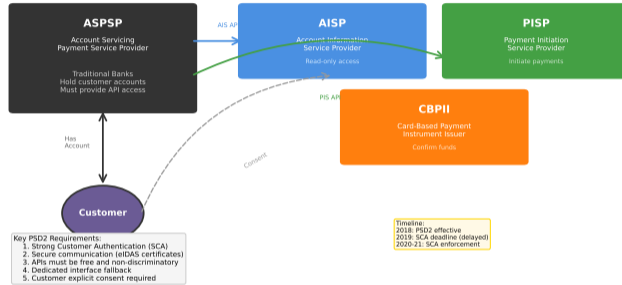


Source: openbanking.org.uk, eur-lex.europa.eu (PSD2)

Historical context helps explain current Open Banking landscape.

PSD2 Regulatory Architecture

Payment Services Directive 2 (EU 2015/2366)

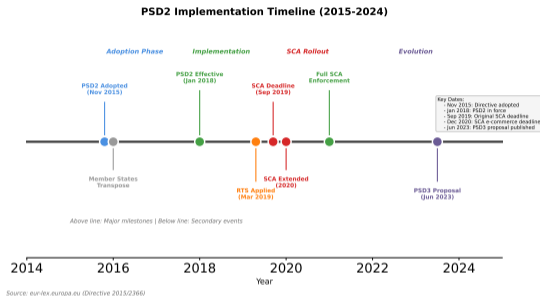


Source: eur-lex.europa.eu (EU Directive 2015/2366)

This concept is fundamental to understanding Open Banking.

Implementation Phases

- 2015: Directive adoption
- 2018: SCA requirements
- 2019: RTS compliance
- 2021: Full enforcement

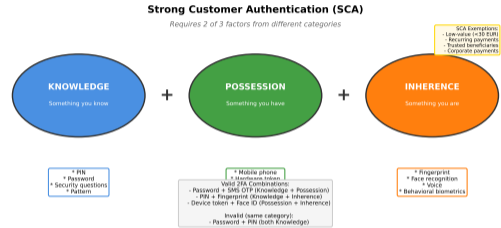


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Strong Customer Authentication (SCA)

Two-Factor Requirement

- Knowledge (password)
- Possession (mobile device)
- Inherence (biometric)
- Exemptions for low-risk



Source: eur-lex.europa.eu (EU Delegated Regulation 2018/389 - PSD2 RTS)

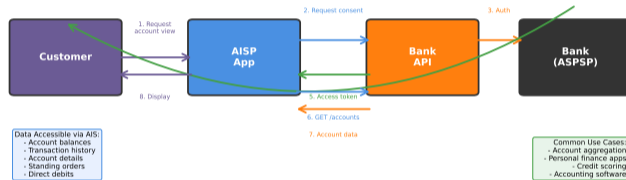
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Account Information Service (AIS)

Account Information Service (AIS) Flow

Read-only access to account data

4. Bank redirects customer for SCA



Source: eur-lex.europa.eu (PSD2 Article 67), berlin-group.org (NextGenPSD2)

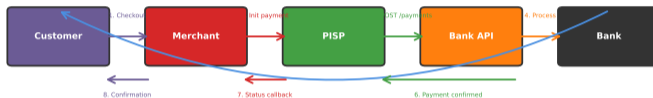
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Payment Initiation Service (PIS)

Payment Initiation Service (PIS) Flow

Bank-to-bank transfer via open banking

5. Redirect customer for bank authentication (SCA)



PIS vs Card Payment:

- No interchange fees (0% vs 1.5-3%)
- Direct bank transfer (instant settlement)
- Irrevocable (no chargebacks)
- Lower fraud risk

PIS Use Cases:

- E-commerce checkout
- Bill payments
- Account funding
- Recurring payments

Source: eur-lex.europa.eu (PSD2 Article 66), berlin-group.org (NextGenPSD2)

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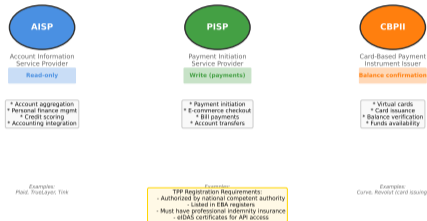
Third-Party Providers (TPPs)

Provider Types

- AISP: Account aggregation
- PISP: Payment initiation
- CBPII: Card balance checks
- Regulatory authorization

Third Party Provider (TPP) Categories

Note: A single provider can register for multiple TPP categories

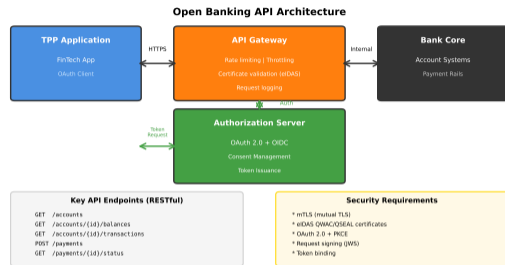


Source: eur-lex.europa.eu, eba.europa.eu (PSD2 TPPs)

This concept is fundamental to understanding Open Banking.

Technical Protocols

- RESTful architecture
- OAuth 2.0 authorization
- OpenAPI specification
- JSON data format



Source: berlin-group.org/openbankinguk.github.io (Open Banking APIs)

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Key Takeaways

- ① Customer-permissioned access
- ② Standardized APIs
- ③ Third-party innovation
- ④ Regulatory mandate (EU, UK)

Bottom Line: Open Banking is transforming how financial services operate and compete.

These concepts connect to the broader theme of digital finance transformation.

Open Banking in Visual Perspective



Technology view



Application view



Future view

Visual representations help reinforce key concepts of open banking.

Concrete Examples: Making It Real

Technical Examples

- Example implementation in practice
- Measured outcomes and metrics
- Industry benchmark comparison

Case Study

- Real-world deployment scenario
- Quantifiable results achieved

Industry Leaders

- Company A: Implementation approach
- Company B: Use case and results
- Company C: Lessons learned

Market Data

- Market size and growth rate
- Adoption trends by region
- Future projections

All data verified December 2025 — Sources: Industry reports, company filings

Quiz Questions (1–5)

Q1. What is the primary purpose of open banking?

- A) Increase efficiency B) Reduce costs C) Improve access D) All of the above

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Q10. What is a key takeaway about open banking?

- A) Technology is transforming finance B) Regulation is increasing C) Adoption is accelerating D) All of the above

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Q10. What is a key takeaway about open banking?

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Answer: D – All these trends are interconnected.