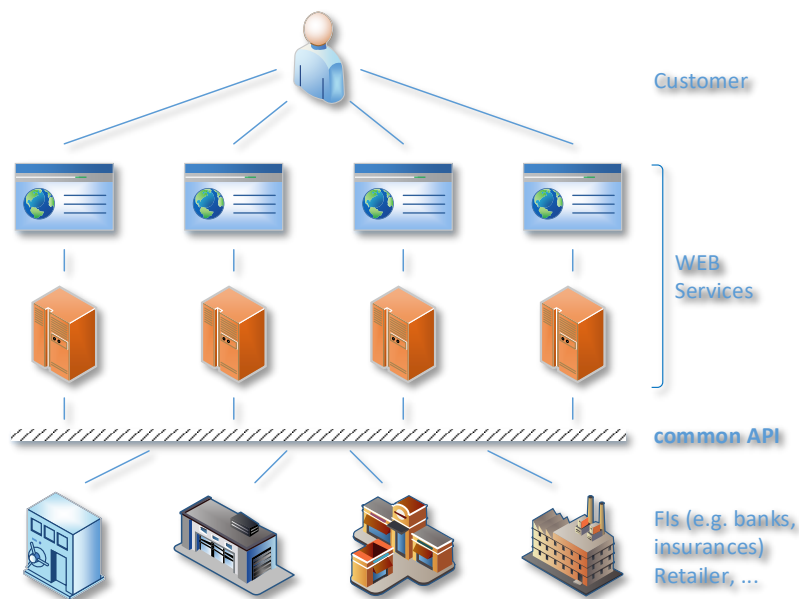


SFTI - working group 'Common API'

Loans API, Mortgages

API Specification and Implementation Guidelines



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About SFTI

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2. Preface

This document covers the business domain *Mortgages*¹ of the banking business area *Loans*. For details regarding the scope of the Loans API, please refer to the document *05.API_Loans_all_v0.02.pdf*.

2.1 Contents and limitations

The use cases described in the following chapters relate exclusively to the core processes of banking. This serves to get an idea of the process's services. Aspects of security and privacy are excluded at this point and will be addressed separately.

Wherever it's necessary for the current core business process to include security and/or privacy aspects, a respective placeholder will be set. The same approach also applies to other non-functional requirements and/or constraints.

2.2 API Description

The API related to any of the loan types mentioned in this document is described in a corresponding OpenAPI file. Therefore, and to best possible avoid inconsistencies, no further documentation is present in this document.

¹ Mortgage: An agreement that allows you to borrow money from a bank or similar organization, especially in order to buy a house, or the amount of money itself (Cambridge Dictionary)

3. Business Case Overview

The lists in the following sections show all business cases related to the loan type *Mortgages* to be covered by the *Loans API*. The chosen order reflects the prioritization of the business cases with regard to their processing in the course of the API specification process.

3.1 Internal bank cases / No change of bank involved

Business cases from the customer's point of view:

1. I want to prolong an expiring mortgage.
2. I want to increase an existing mortgage while keeping the conditions.
3. I want to change the conditions of an existing mortgage, e.g. fixed-interest duration.
4. I want to apply for new mortgage financing (new business).
5. I want to calculate the costs of an early mortgage repayment.
6. I want to terminate an existing mortgage.

3.2 Cross-bank cases / Change of bank involved

Business cases from the customer's point of view:

1. I want to apply for new financing of an existing mortgage by another bank.
2. I want to transfer my current mortgage to another provider.²

3.3 Bank-spanning cases / TPPs involved

Business cases from the customer's point of view:

1. I want to get a list of available mortgage products including conditions (e.g. as a link list).
2. I want a TPP to generate a liquidity planning for me, based on the currently available financial information regarding any current mortgage.

² Query mortgage data: loan amounts, property data and land charge

4. Use Case Overview

The lists in the following sections show all use cases related to the *Mortgages* business cases described in the previous chapter.

4.1 Prolongation of a Mortgage

4.1.1 UC1 - Prolongation of an expiring mortgage, no change in risk for the bank

- Customer and relationship manager are notified about (1-n) expiring mortgage products (tranches). The notification happens on several channels (RM Dashboard, E- or Mobile Banking, SMS, Customer Portal, Printout, Phone)
- If the customer does not opt for self-service, Customer and relationship manager discuss the prolongation and possible financing strategies (on several channels possible)
- The bank provides 1-n offers for the prolongation (via chosen channel)
- The customer compares the offers and chooses one out of it
- The bank is informed about the customer decision
- The expiring mortgage tranche is replaced by a new product tranche (fully STP possible)
- The new products are persisted and the product confirmation is sent to the customer

4.1.2 UC2 - Prolongation of an expiring mortgage, change in risk for the bank

- Customer and relationship manager are notified about (1-n) expiring mortgage products (tranches). The notification happens on several channels (RM Dashboard, E- or Mobile Banking, SMS, Customer Portal, Printout, Phone)
- Relationship manager asks for additional information from the customer when they have knowledge about relevant negative changes in debt to income ratio (Tragbarkeit / Bonität) or loan to value ratio (Belehnung)
- Customer and relationship manager discuss the prolongation, possible financing strategies (on several channels possible)
- If a financing is still allowed by the banks' regulation, the bank provides 1-n offers for the prolongation (via chosen channel)
- The customer compares the offers and selects the best fit
- The bank is informed about the customer decision
- The expiring mortgage tranche is replaced by a new product tranche (fully STP possible)
- The new products are persisted and the product confirmation is sent to the customer

4.2 Transfer_Mortgage - Bank to Bank

4.2.1 UC1 - Offering Data Interface³

The existing bank makes the following data available to the new bank on request:

- Real estate data, e.g. street, cat. no., E-GRID no., postcode
- Basic appraisal data, e.g. number of rooms, bathrooms, etc.
- Real estate lien data, e.g. type of real estate lien, amount, etc.
- Payment instructions for repayment, e.g. amount incl. interest, account no.

4.2.2 UC2 - Import properties and loans information⁴

The new bank makes can receive and import the data needed for an offering:

- Real estate data, e.g. street, cat. no., E-GRID no., postcode
- Basic appraisal data, e.g. number of rooms, bathrooms, etc.
- Real estate lien data, e.g. type of real estate lien, amount, etc.
- Payment instructions for repayment, e.g. amount incl. interest, account no.

4.2.3 UC3 - Electronic promise to pay⁵

An interface must be made available so that irrevocable promises to pay can be exchanged electronically from the new bank with the existing bank. On the basis of this promise to pay, the existing bank then releases the real estate lien.

4.2.4 UC4 - Interface for submission of notes⁶

An interface is planned to ensure real estate liens can be efficiently transferred. The aim is collective custody for register-based mortgage notes and paper-based real estate liens.

4.2.5 UC5 - Execute the payment⁷

Based on the payment interfaces, the bank has to provide some mortgage data in the payment that the existing bank can close the business related to the payment.

³ New bank: Receives data about properties and loans (including interest rates and mortgage certificates) and payment instructions.

⁴ New bank imports the data into their system to make an offering to the client

⁵ Existing bank: Receives electronic promise to pay.

⁶ Interface for register-based mortgage note distribution or address data for dispatch of paper-based mortgage notes.

⁷ The new bank has to transfer the amount of the loan to the existing bank.

4.3 Transfer_Mortgage - via TPP Platform

4.3.1 UC1 - Review mortgage offers

- The customer decides on the re-mortgage criteria e.g. principal amount, rate (fixed, variable etc), monthly repayments and term required
- The customer uses a third-party provider (e.g. mortgage loans website) to request for mortgage offers available
- The third-party website contacts mortgage providers to get the mortgage offers that meet the customers eligibility and mortgage criteria for comparison

4.3.2 UC2 - Apply for mortgage:

- The customer selects one mortgage provider from the third-party mortgage website that is suitable
- The customer scans the required documents (e.g. salary slips, existing mortgage statement etc.) and completes additional details for the application on third-party provider website
- The third-party provider submits the application to the selected mortgage provider
- The mortgage provider conducts further mortgage eligibility checks
- Customer is new or an existing client
- Credit bureau ratings
- The existing bank makes the following data available to the new bank on request:
 - Real estate data (street, cat. no., E-GRID no., postcode)
 - Basic appraisal data (number of rooms, bathrooms, etc.)
 - Real estate lien data (type of real estate lien, amount, etc.)
 - Payment instructions for repayment (amount incl. interest, account no.)
- The mortgage provider arranges a valuation of the property being mortgaged
- On receipt of the property valuation the mortgage provider either accepts or rejects the application

4.3.3 UC3 - Receive mortgage offer:

- The third-party provider sends the approved mortgage offer to the customer
- The customer engages a legal conveyancer to assist with the legal documentation for approval and signature
- The customer advises existing mortgage provider of decision to repay mortgage and move mortgage to new provider
- The customer agrees mortgage completion date for release of funds for new mortgage
- The third-party provider advises the mortgage provider of the completion date to transfer funds to the conveyancer escrow to payoff previous mortgage

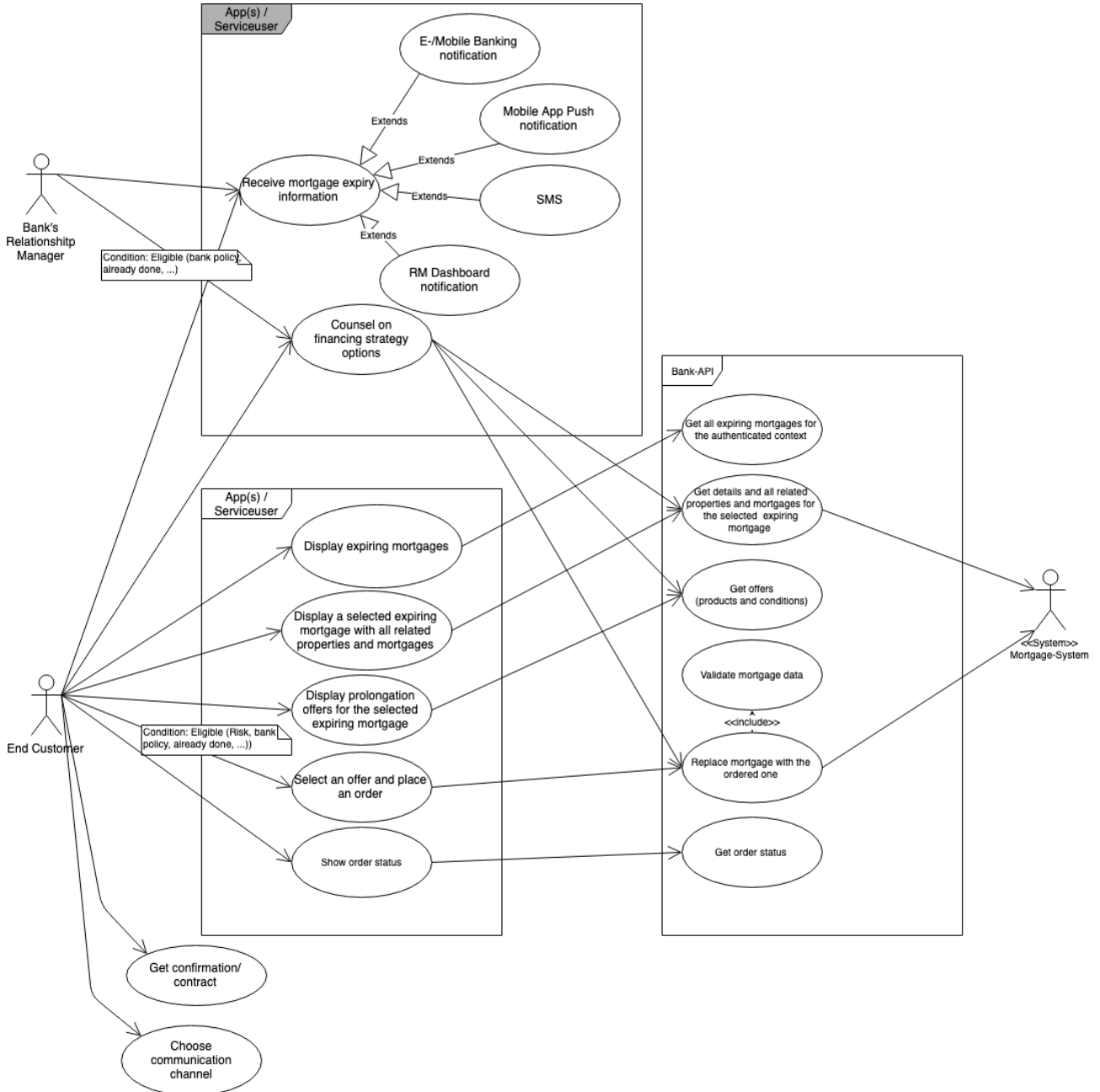
4.3.4 UC4 - Repay the mortgage:

- The third-party provider advises customer of the repayment schedule
- The customer repays according to the repayment schedule
- The third-party provider provides a periodic mortgage statement to the customer

5. Use Case Diagrams (UML)

The following use case diagrams show the stakeholders, system boundaries, and corresponding requirements for the *Mortgage API*.

5.1 Mortgage prolongation



6. API Design

For the API specification, the use cases within the Bank-API system boundaries are relevant. The API specification is split into the actual published API and the optional internal API for internal use by the banks. The *Loans* API shares the basic data model with all other APIs that form the Common API Specification (e.g., *Payments* API). The following figure gives an overview of the *Loans* API specification files and their content and relations.

