

# Overview

Fee Management Platform (FMS), your innovative fee management system, simplifies the integration process for effortless fee handling. Designed for seamless connection to our other products, Fee Management Platform offers a streamlined approach to defining, charging, and reporting on various fees. It consists of the following key components:

- Fees API - FMS core API responsible for collecting information on chargeable events, calculating fee amounts, and storing them in the database, with the optional capability to charge customers for specific transactions or actions.
- Admin Panel - Administration Panel provides the user interface for defining and managing pricings in the FMS product.
- Antaca API - Verestro's API responsible for charging customer balances and cards within the FMS product. When an FMS user configures pricing that involves instant charging, this API is called to provide the charging action.

## Architecture

### C4 Context diagram

[C4 Context.png](#)

### C4 Container diagram

[C4 Container.png](#)

## Key product features

Charging defined fees for specific services without actually enforcing payment. A report can be generated from the calculated fees, and then an invoice can be issued.

Calculating the fee for a defined service and instantly deducting the funds from the balance or payment card of the end-user who initiated the transaction.

**This feature is available only when end-users' balances/payment cards are stored on Antaca's side or are external, but integrated with Antaca balances.**

# Transactions (events) subject to fees

<b>Events we can charge for:</b> (instantly charge end-user's balance/card stored in Antaca)	<b>Events we can collect fee for:</b> (report generating without balance charging)
<ul style="list-style-type: none"><li>• Antaca card created (Issuer – Quicko)<ul style="list-style-type: none"><li>◦ Virtual card</li><li>◦ Physical card</li></ul></li><li>• Cleared / authorized transaction<ul style="list-style-type: none"><li>◦ POS (domestic/intra/inter)</li><li>◦ eCommerce (domestic/intra/inter)</li><li>◦ ATM (domestic/intra/inter)</li><li>◦ ApplePay debit transaction (on-site)</li><li>◦ ApplePay debit transaction (remote)</li></ul></li><li>• IBAN events<ul style="list-style-type: none"><li>◦ Incoming transaction</li><li>◦ IBAN created</li></ul></li></ul>	<ul style="list-style-type: none"><li>• Antaca card created (Issuer – Quicko)<ul style="list-style-type: none"><li>◦ Virtual card</li><li>◦ Physical card</li></ul></li><li>• Cleared / authorized transaction<ul style="list-style-type: none"><li>◦ POS (domestic/intra/inter)</li><li>◦ eCommerce (domestic/intra/inter)</li><li>◦ ATM (domestic/intra/inter)</li><li>◦ ApplePay debit transaction (on-site)</li><li>◦ ApplePay debit transaction (remote)</li></ul></li><li>• IBAN events<ul style="list-style-type: none"><li>◦ Incoming transaction</li><li>◦ IBAN created</li></ul></li><li>• Transaction on technical balance<ul style="list-style-type: none"><li>◦ Currency exchange (FX)</li></ul></li><li>• Card maintenance (weekly, monthly)</li><li>• Tokens maintenance (weekly, monthly)</li></ul>

It is possible to setup various fees charged to users for card issuing and account management activities. Fees can be setup through administration panel by product team or by customer themselves (it strongly depends on the particular customer).

Fees can be managed in two ways:

1. Partner can setup own fee management system and charge users completely outside of Verestro system.
2. Partner can use Verestro fee management module.

There is implementation on-going to have conditional fees like - *"If users do 1000 EUR transaction monthly, we do not charge monthly fee"*.

## Fee settlement types

Fee Management System (FMS) offers various settlement types. Each configured fee in the FMS has its own settlement type, offering flexibility to meet specific needs.

### Instant settlement

We charge the fee instantly, right after the occurrence of the event (transaction), utilizing the Antaca API.

FMS can charge either customer's card or balance (the ones managed by Antaca API).

## Invoice settlement

We do not charge the fee, we only calculate it and it is stored in our database.

FMS can generate a summary report (weekly or monthly) for fees of this type.

## Fee calculation types

Fee Management System (FMS) provides diverse fee calculation methods, ensuring adaptability to distinct requirements. Each configured fee in the FMS is associated with a specific calculation type, allowing for tailored and precise fee management.

### Fixed price

We calculate the fee as a fixed price, defined as a specific amount with a designated currency.

Example: We can calculate 0,5 EUR for any issued card.

### Percentage

We calculate the fee as a percentage, defined as a specific rate of the transaction amount.

The fee can then be stored either in the transaction's currency, or we can predefine a settlement currency for this type of fee.

Example: We can calculate 0,5% for ATM withdrawal, charged in transaction currency.

### Mix

We can combine the two aforementioned types (fixed, percentage) to form a single fee.

The fee will be stored in predefined settlement currency.

Example: We can calculate 0,2 EUR + 0,5% for ATM withdrawal, charged in predefined settlement currency e.g. EUR.

## Service types

Another important aspect of the system is that we can distinguish whether the fee is defined for individual units or cumulative. In simple terms, if a user intends to charge a fee for each unit, it is

labeled as a Unit service. On the other hand, if they prefer to apply tiered or volume pricing for a set number of transactions (events), we refer to it as a Cumulative service.

When defining a fee, the user needs to specify whether it will be a fee for a unit service or a cumulative service.

## Unit service

The FMS user defines the fee for unit services when the price should be independent of the quantity of services used by the customer. This means that for any transaction (event) that occurs, we calculate a predefined price. Example: We can calculate 0,5 EUR for any issued card.

<b>Fee calculation time</b>	instantly
<b>Available price calculation models</b>	fixed, percentage, fixed + percentage
<b>Settlement types</b>	instant (debit balance/card), invoice (store settlement in database)
<b>Additional features</b>	<ul style="list-style-type: none"><li>• free tier per actor per period (e.g. first 2 issued cards (lifetime period) per cardholder are free)</li><li>• filtering events by any event field (e.g. define fee only for domestic transactions, charge only for card issued with EUR currency etc.)</li></ul>
<b>Examples</b>	<ul style="list-style-type: none"><li>• Card issuance fee – 0.5 EUR per issued card</li><li>• ATM withdrawal fee – 2% of transaction amount</li></ul>

## Cumulative service

The FMS user defines the fee for a cumulative service when the price depends on the quantity of services used by the customer. This means that we calculate a total price after we receive a summary event, which provides information about the quantity of transactions (events).

<b>Fee calculation time</b>	at the end of the billing period (weekly, monthly)
<b>Available price calculation models</b>	tiered pricing, volume pricing
<b>Settlement types</b>	invoice (store settlement in database)
<b>Additional features</b>	<ul style="list-style-type: none"><li>• Free tier when define first tier from 1 001 event (first 1000 events won't be charged)</li></ul>

<b>Examples</b>	<ul style="list-style-type: none"> <li>• Card maintenance fee: 0.2 EUR up to 10 000 cards, 0.18 EUR up to 20 000 cards</li> <li>• Token maintenance fee: 0.02 EUR up to 100 000 tokens, 0.018 EUR up to 500 000 tokens</li> </ul>
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In simple terms, if FMS user wants to apply tiered or volume pricing for a set number of transactions (events), they should opt for the Cumulative service.

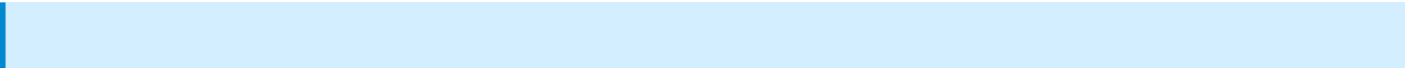
Example and comparison of Tiered vs Volume pricing is in table below.

Volume pricing	Tiered pricing
01-20 = \$10 per event 21-30 = \$8.5 per event 31-40 = \$7 per event 41+ = \$5.5 per event	01-20 = \$10 per event 21-30 = \$8.5 per event 31-40 = \$7 per event 41+ = \$5.5 per event
<b>Cost breakdown:</b> You have sold 60 widgets. This is in the range of 41+; all widgets will cost \$5.5 each.	<b>Cost breakdown:</b> You have sold 60 widgets. First 20 widgets cost \$10 each. Next 10 widgets cost \$8.5 each. Next 10 widgets cost \$7 each. Additional widgets cost \$5.5 each.
<b>Total cost =60 x \$5.5 = \$330</b>	<b>Total cost: (20 x \$10) + (10 x \$8.5) + (10 x \$7) + (20x \$5.5) = \$465</b>

## Recurring service

The FMS user defines the fee for recurring service when they want to establish a recurring fee with a fixed price. This means that at the beginning of every billing period, the fixed price will be saved in the settlements. This type of service is only applicable with invoice settlement.

<b>Fee calculation time</b>	at the beginning of the billing period (daily, weekly, monthly, yearly)
<b>Available price calculation models</b>	fixed price
<b>Settlement types</b>	invoice (store settlement in database)
<b>Additional features</b>	<ul style="list-style-type: none"> <li>• Fee can be charged once in a period (daily, weekly, monthly, yearly)</li> </ul>
<b>Examples</b>	<ul style="list-style-type: none"> <li>• Monthly project fee</li> <li>• Monthly maintenance fee per project</li> </ul>



\* The functionality marked with '\*' is currently under construction. We appreciate your understanding as we work to enhance this feature.

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