

# Pannovate CMS Overview

[ CONFIDENTIAL ]



# Introduction

Pannovate and Temenos have a mutual banking client in Europe. Pannovate has a long-standing relationship with the bank in providing card management and treasury services for their debit and credit card portfolio, and the bank chose Temenos to provide their new core banking system to replace their legacy platform. This project is in its latter stages so the bank will soon benefit from the power of Temenos' Transact and Infinity products, closely integrated with Pannovate's advanced card management system.

In working with the Temenos team on this project, it became apparent to Pannovate that there may be mutual opportunities to leverage the system we built together for other banks. Further exploratory discussions with Temenos led to Pannovate joining the Temenos Exchange in March 2023, where our primary differentiator from other exchange partners is our ability to provide an advanced Card Management System to complement the Temenos core banking products. We believe that our combined capabilities will give our mutual clients compelling propositions, and we anticipate that other banks across the globe can enjoy similar benefits.

It is important to highlight that our integration with Temenos for our current joint project is based wholly on Temenos' standard L1 adaptor rather than the custom L3 adaptor with which other exchange partners have integrated. This means that, as well as the Temenos core benefiting from the functionality under this project, the solution is more easily repeatable which reduces effort, time and cost on Temenos for future implementations of the same nature.

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***Ultimately, the purpose of this document is to explain how Pannovate fits in to the world of Temenos, so that the Temenos teams know when and why to involve Pannovate in opportunities, as distinct from other exchange partners such as Marqeta and Paymentology.***

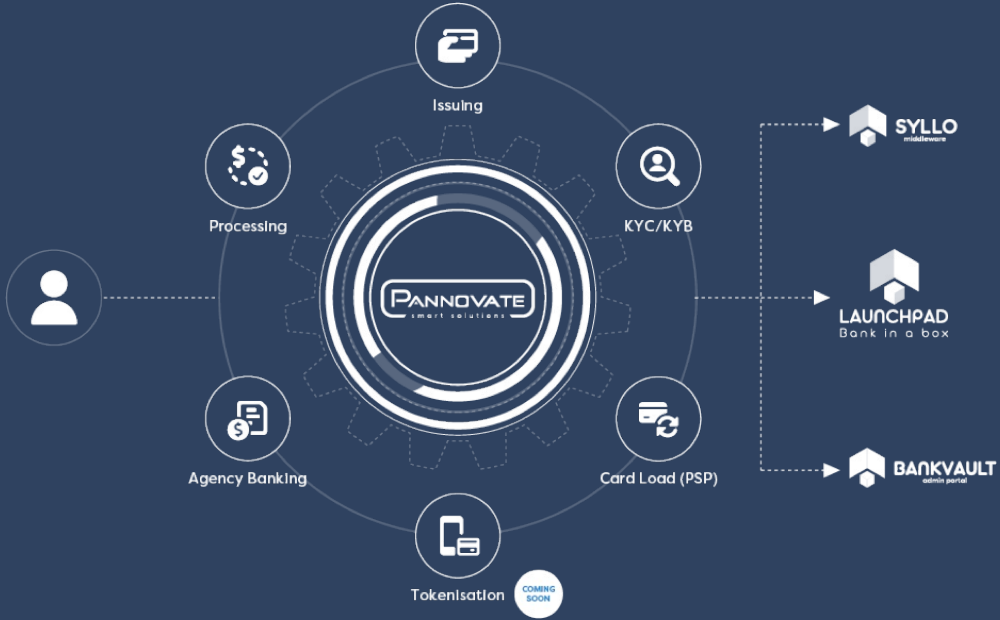
# About Pannovate

Pannovate is an award-winning Card Management System (CMS) provider and Banking-as-a-Service (BaaS) platform, with an orchestration layer that empowers banks, fintechs and businesses globally to deliver seamless digital and embedded finance experiences for the connected economy.

With 150 APIs and a network of 47 fully integrated and proven partnerships from processors to KYC providers and BIN sponsors, organisations can seamlessly gain access to Pannovate's wealth of modular solutions through our orchestration layer, such as a comprehensive CMS, wallet management, payment processing, and numerous other business-critical services an organisation requires in order to stay competitive.

Our platform has been designed from the ground up to include the most relevant features a bank will need to utilise a full-service CMS or payments proposition with speed to market, while offering the flexibility to accelerate the development of digital capabilities.

Working with cutting edge banks, fintechs and innovators, Pannovate has been recognised by the industry as an organisation that is continuously challenging the status quo and pushing the boundaries of innovation for its customers. Over the years, the hard work achieved by all the teams at Pannovate in delivering innovative products and features for its customers has been acknowledged by receiving numerous industry accolades.



- INITIAL PRODUCT SET UP AND LAUNCH
- FULL LIFE CYCLE PROJECT MANAGEMENT
- REQUIRED DUE DILIGENCE
- FULL COMPLIANCE REVIEW

- FINANCE PROCESS REVIEW (INCLUDES BANKING, FUNDING, RECONCILIATION AND SETTLEMENT PROCEDURE REVIEW)
- REGULATORY REVIEW
- COMPREHENSIVE ACCOUNT MANAGEMENT
- CLIENT SUPPORT SERVICES & PRODUCT TRAINING

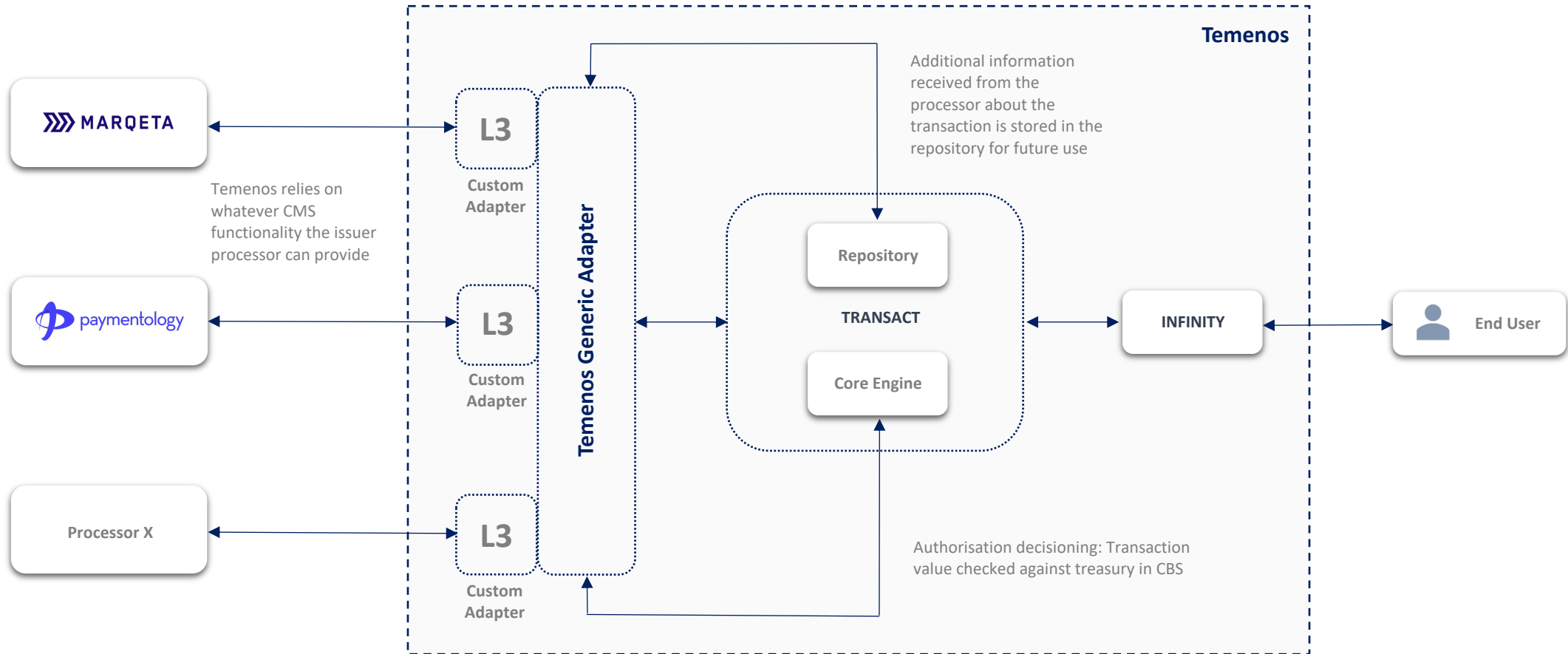
# Core Banking & Cards Project

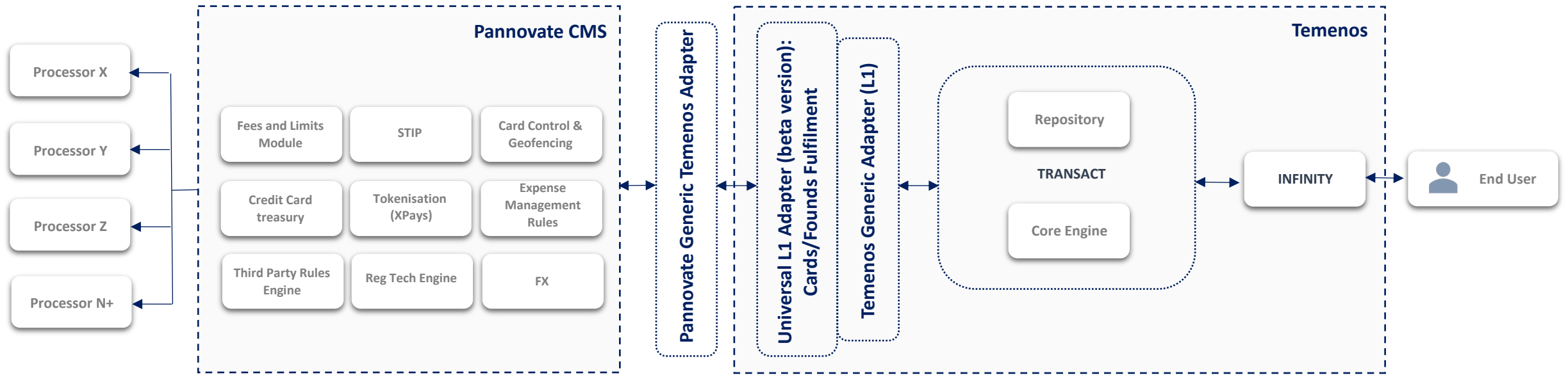
Pannovate and Temenos' mutual banking client provides debit and credit products to their European customer base, with around 50 flavours of account and card product configurations to supply their market. Pannovate has been a partner of the bank for a number of years, providing the card management system and treasury for all debit and credit card products, with an offline connection to the legacy core banking system to synchronise the treasuries. In order to streamline operations and have the core banking system as a central treasury for real-time decisioning on all debit card transactions as well as banking, the bank is in the latter stages of migrating their core banking system to the Temenos platform, both Transact and Infinity. Whilst certain aspects of card transaction processing remains with Pannovate, there is a close integration with Temenos for centralized onboarding of customers through the Temenos platform to have a unified system of record for customers, regardless of product or geography.

This initiative has involved Pannovate integrating directly with Temenos' standard L1 adaptor to enable card management services, funds fulfilment and various ongoing exchange and synchronization of data in support of the target operating model under Temenos. In fact, our work together has evolved the L1 adaptor and API framework so that Temenos now has a closer two-way integration for external card management systems (ie Pannovate) for both Transact and Infinity.

As of August 2023, the build has been completed on the Pannovate side, with the project in the test phase before migration and go-live.







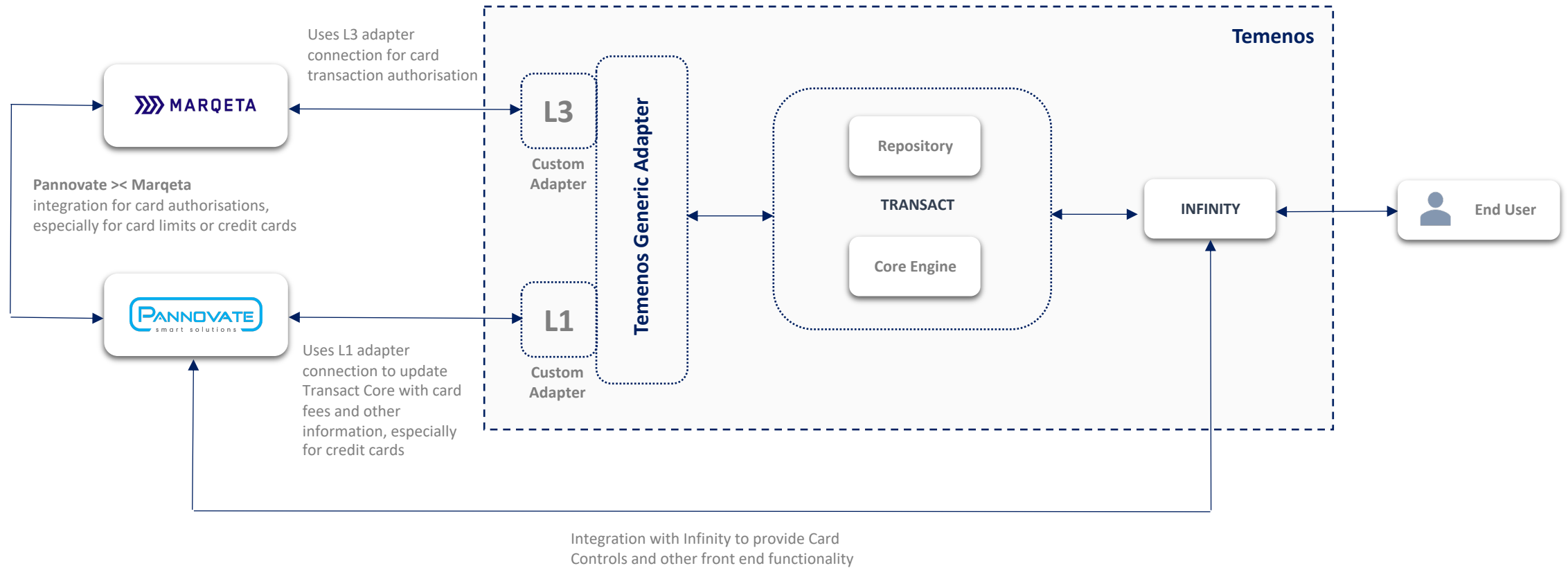
Pannovate performs all checks and applies the rules and fees configured on the CMS before passing the transaction request to the Transact treasury for the authorisation decision. All the data is fed back to Transact in L1 adaptor message formatting. All parsing of messages between Temenos and processors is performed by Pannovate

Pannovate's integration with Temenos' universal adapter ensures that Pannovate's adapter can facilitate the full end-to-end card lifecycle management through a two-way partner-agnostic adaptor - thereby ensuring a 'plug-and-play' approach for new prospects who wish to use either an existing or new processing partner for their cards proposition

Customer and Account is created in Transact and then data is shared with Pannovate via API for Card account creation & issuance. Pannovate will store the unique customer and Account reference generated by Transact for future use in data synchronisation. Once processed, Pannovate will provide a response back to the Transact API to inform the card details along with unique ID generated in Pannovate, which creates a linked entry in Card issue application within Transact

Our CMS solution integrates seamlessly with Transact's API stack to ensure facilitation of all required card management services; thereby allowing Transact to use their own APIs without additional integration work being required

# Alternative Hybrid Model: Temenos + Pannovate + Processor



# Sylo: Next-Gen CMS

There are many card management capabilities and configurations that are available in Pannovate's Sylo platform that will enable a bank to provide a rich CMS that works seamlessly with both Transact and Infinity



## Card Lifecycle Management:

- Order card
- PIN reveal
- Temporary block/unblock card
- Block/unblock at ATM
- Cancel card
- Replace card
- Restrict usage at MCCs, MIDs, ATMs
- Country & location-based restrictions
- Time-based restrictions
- Tokenisation

## Transaction Lifecycle Management:

- Transaction authorisation
- Incremental authorisations
- Clearing & settlement
- Reversal & refund facilitation
- Balance and statement enquiries
- Disputes & chargebacks
- STIP service

## Other Services:

- Fraud Monitoring
- Contact Centre
- PSD2 Compliance
- Open banking / Open finance

## Limits:

- Daily Limit
- Monthly Limit
- POS daily spend
- ATM daily spend
- Single transaction limits

## Fees:

- Transaction fees
- Recurring fees
- FX fees and markups
- Card lifecycle fees
- Customised fees

## User Notifications:

- Low balance notifications
- Spend notifications
- Authorisation notification requests
- Customised marketing notifications

## App:

- A white-label alternative to Infinity as an interim solution

*Pannovate's CMS platform is highly configurable both in terms of the presence or absence of features and the operational flows*



# Expand Temenos products as the business grows



## BYO Platform

Pannovate has an existing portfolio of integrated processing partners and can swiftly integrate with other issuer processors. Not only does this mean that clients can select a ready-made processing solution off-the-shelf, but this ensures that prospects, who may have preferred or selected partners, need not fear about losing such valued relationships – Pannovate's flexibility allows them to utilise their partners of choice.

## Leveraging our ecosystem

Similarly, Pannovate has a wealth of integrated partners to provide further ecosystem integrations (such as card acquiring, FX, Open Banking, tokenisation, PSD2) and value adding services for end users (gamification, cashback/rewards, loyalty), whilst equally having flexibility to integrate with other partners and providers. This may benefit the end client but may also be used to enrich the Temenos Payments Hub (TPH).

## To Infinity and beyond

Pannovate's tech stack allows Transact to consume all our services via our simple but comprehensive API layer with Temenos' L1 adaptor. This means that Transact, which supplements Infinity, has the potential to serve a richer experience to the end user by leveraging Pannovate's capabilities. This includes for example the flexibility to display the card PIN, applicable fees, limits and restrictions (eg country, MCC, merchant, time), SCA counters, ECB FX rates). Pannovate can help power Infinity with a large array of additional data that users may wish to see.

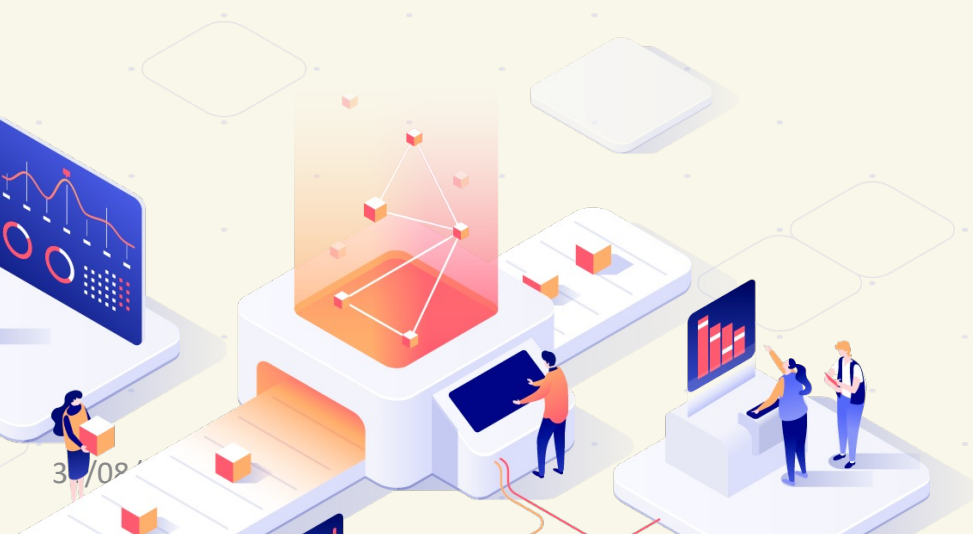


**There is also the opportunity to supplement the funds fulfilment service by allowing the approval or decline of transactions based upon parameters such as geofences, merchant IDs, and terminal IDs, should Temenos wish to expand the L1 adaptor capabilities in this way.**



# Where Pannovate fits in

**Pannovate's integration with Transact and Infinity ensures that Temenos has a ready-made and repeatable solution built to their L1 adaptor that offers rich CMS capabilities that boosts Temenos' core banking offering**

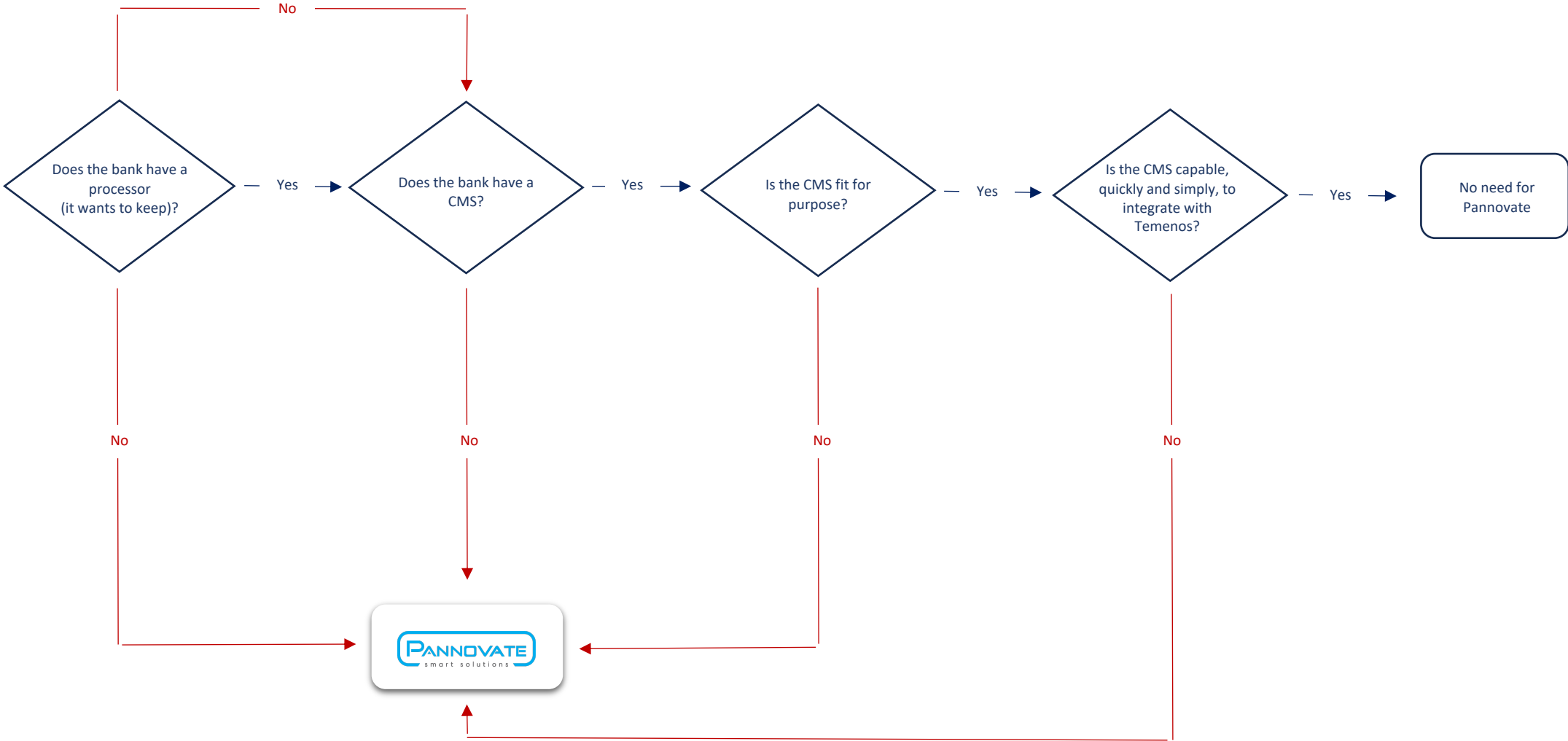


## Use Cases

**In incorporating the Pannovate adaptor into opportunities with banks, Pannovate is a fit where:**

- | A bank is looking to provide cards and cards management capability for the first time and wants a full-suite CMS
- | A bank's existing CMS is not fit-for-purpose eg functionally limited, operationally inefficient, cannot scale, is too expensive to run
- | A bank's existing CMS is technologically constrained and cannot integrate with Transact and/or Infinity, or cannot do so to reasonable cost or timescale
- | A bank's contract with their existing CMS provider is due for renewal within the next 12 months and is looking to upgrade to a new system
- | A bank wishes to expand its capability to commodify programme-based fees via card-based transactions
- | A bank wishes to attach value-add services to their card portfolio and requires access to an orchestration layer (direct to Pannovate or via Transact)
- | Banks are looking to switch issuer processor for their card functionality, or want the flexibility to be able to do so without an additional integration project
- | Speed-to-market is important for a bank where utilising the pre-existing Temenos/Pannovate integration will be quicker and more cost-effective
- | Temenos wishes to avoid a custom L3 integration and to harness a pre-existing L1 integration

# Example Decision Tree - When to engage Pannovate?





# Thank you

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