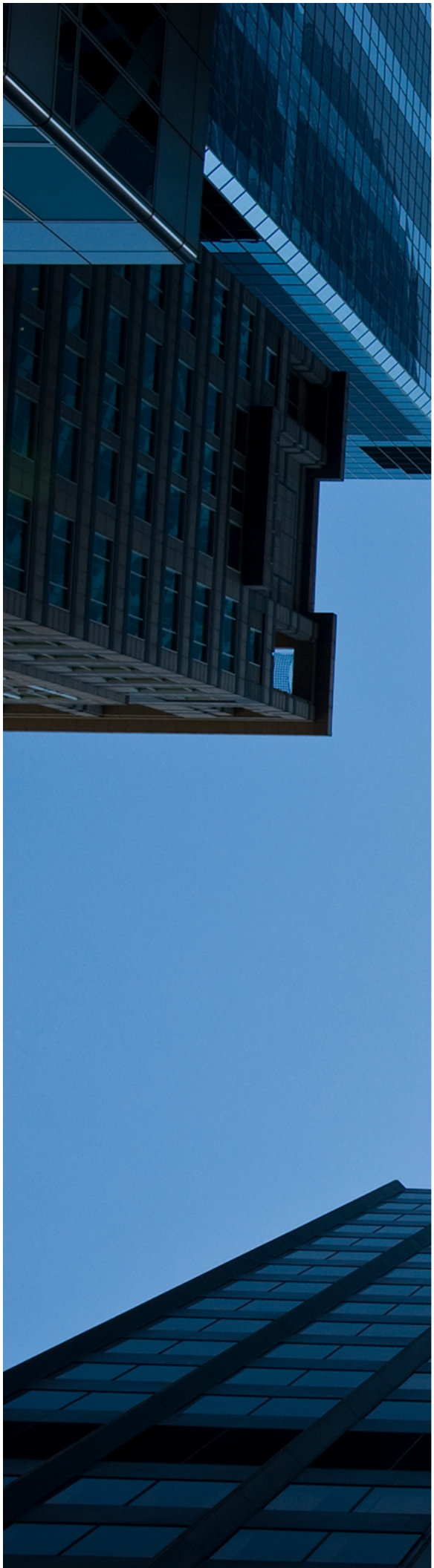

Aite Novarica

MAY 2022

# INTELLIGENT PAYMENTS PROCESSING

## RESEARCH ON A MODERN AND OPTIMIZED PAYMENTS JOURNEY

PREPARED FOR:

Pelican

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RESEARCH ON A MODERN AND OPTIMIZED PAYMENTS JOURNEY

# EXECUTIVE SUMMARY

The current payments landscape shows a plethora of fragmented systems, each one designed to process either high- or low-value, cross-border, or domestic payment types. Increasingly, transactions also need to be settled in real time, along with support for ISO 20022 message formats. New competitors are emerging, requests for a better user experience are pressing, and data has become an important distinguishing factor. Navigating disparate legacy payment platforms and workstreams is slowing the adoption of new payment streams and does not allow financial institutions (and their corporate clients) the full exploitation of data contained within the payments.

What has been historically referred to as a payments hub is often being more aptly positioned as a payments platform, removing the stigma associated with the less-efficient legacy technology and implementation process of a traditional payments hub. A modern, intelligent payments platform is worth pursuing for any financial institution, regardless of size. Long term, this can provide significant cost savings, enhance the client experience, enable new product offerings with quicker go-to-market time, and provide an efficient foundation for all new payment workstreams going forward.

This paper introduces the notion of an intelligent payments platform that encompasses the end-to-end life cycle of a payment—from original inception to execution and settlement—helping banks and financial service institutions (FIs) to operate in a seamless manner when exchanging payments information with their corporate and small-to-midsize enterprises (SMEs) clients. A modern intelligent payments platform is worth pursuing for any FI, regardless of size. Long term, a payments platform can provide significant cost savings, enhance the client experience, enable new product offerings with quicker go-to-market time, and provide an efficient foundation for all new payment workstreams going forward.

Innovative and intelligent payment platforms leverage advanced technologies such as machine learning (ML) and natural language programming (NLP) to improve process efficiencies and create cloud-based and service-oriented ecosystems of best-of-breed partners. Such innovative platforms also provide full integration with financial crime compliance processing. The enhanced capabilities of payments platforms provide bank treasury and operations teams with a decision-support system to optimize an enterprise's payments life cycle, especially in the foreseeable future when full adoption of ISO 20022 standards will turn payments into a commodity, minimizing format

translations. Data enrichment is the competitive differentiator that can be achieved through a payments platform that offers the following:

- **Payments processing:** A comprehensive payments platform processes all payment rails (e.g., ACH, RTGS, instant, and cross-border).
- **Compliance:** A payment platform with integrated compliance is much more valuable to FIs than having a separate system for payment processing and compliance.
- **Cloud:** A cloud-native, microservices, and API-based platform is always ready to support any new payment channel at any time without disrupting business-as-usual processes.
- **Actionable insights:** A solution that leverages artificial intelligence (AI) to generate predictive and actionable insights from payments data can turn payment processing into a competitive advantage and can turn a cost center to a revenue generator.

# INTRODUCTION

Payment transactions are currently processed by ad hoc systems designed to not only process specific payment types (e.g., domestic, real time, cross border), but also—and most importantly—to handle separate compliance solutions to manage financial crime checks, anti-fraud verification and, when needed, to operate in real time across multiple parties (e.g., correspondent banks, processors, clearing platforms). FIs are demanding more intuitive and configurable products because navigating across disparate legacy payment platforms and workstreams is making it difficult for them to streamline the execution of payment streams (i.e., getting it right the first time) and utilize or tap into the value of data contained within the payment transaction throughout its life cycle. It is also more difficult for businesses or banks to determine how payments should be routed to take advantage of operational efficiencies and opportunities for market differentiation.

Banks with distributed payments operations want to execute payments more effectively and efficiently to leverage the optimizations and opportunities offered in the ISO 20022 standard. This, in turn, requires banks to review their current payments processing environment and impetus to improve their current payments landscape, along with the ability to support and leverage various ISO 20022 message formats. These banks are demanding operational efficiency, an improved IT infrastructure, contained associated deployment costs, and a reduction in the manual intervention expenses that represent a barrier to growth, competitiveness, and operational efficiency. Customers want to execute a payment immediately, at the lowest cost for the desired speed, and then receive and reconcile the confirmation as soon as possible. Any potential internal problem that may cause the payment to be rejected has to be eliminated upfront, ideally with intelligent repairs and enrichment to eliminate manual intervention. Regardless of geography, it is essential that businesses and banks ensure they can work with any form of payment, the related clearing systems, and the associated latest standards.

Financial messages are exchanged among the banks, clearing systems, corporations, and SMEs. These data and information flows form an important and significant part of the payments ecosystem. Banks, businesses, and payments infrastructures must move at the same uniform pace while each one uses different mechanisms to communicate.

But while the payments world is changing, full digitalization hasn't arrived for all yet. So, banks have to move fast while competing against fintech vendors and other new entrant players that are often offering better and more robust (i.e., user friendly and

intuitive/innovative) and personalized products and services. A modern and intelligent payment platform represents the technical element that bridges these different and—apparently—difficult requirements. Payment platforms are intended to reduce or eliminate redundant systems or duplicate functions, such as operations, fraud prevention, and regulatory compliance. Payments platforms also provide value-added services, such as payments tracking and data insights and analytics about payers or originators and their recipients or beneficiaries. A payments platform is worth pursuing for any bank, regardless of size, as the demands for modernization continue to evolve. Long term, the platform (hub) can save significant costs, enhance the customer experience, and provide an efficient foundation for all new payment workstreams that have not even been developed yet. Innovative fintech vendors have pioneered the practical application of AI and ML technologies to enhance, streamline, and secure the payments life cycle, and ensure financial crime compliance with seamless connectivity to emerging payment rails.

This thought leadership paper is structured along the evidence found by Aite-Novarica Group's advisors that banks and their customers are asking for frictionless and "intelligent" payment processing. Banks can fulfill such expectations by rationalizing their payments applications portfolio and following a structured approach to move from just collecting and pushing data to a payments decision-support system.

The enabling solution prospected herein is a digital payments services platform that maintains and leverages a bank's existing core applications, extends the functionalities with mission-critical applications consumed via APIs, embeds regulatory and financial crime compliance modules, innovates using data, and ensures flexibility, adaptability, operational efficiency, and cost efficiency by means of a cloud-based architecture. It is important for banks to support their corporate customer activities with a dedicated, best-of-breed payments processing platform. This paper guides readers at FIs to appreciate the difference between the payments features made available by a generic processing platform and those displayed within a best-of-breed and cloud-based payments platform. To make sure banks are able to offer new products and services in a very agile manner, they have to completely rethink how to leap forward by keeping in mind four important factors to managing payments: processing, compliance, cloud, and insights.

## METHODOLOGY

This paper is based on desktop analysis and extensive examinations of various vendors' payments hubs. Using the life cycle steps of banks and their customers' payments as a benchmark, Aite-Novarica Group's groundwork included analyzing the potential limits of such systems and uncovering potential innovative features.

# PAYMENTS PROCESSING

Developments within the industry today are primarily focused on one ubiquitous system for processing all payment types, regardless of the traditional workstream that "owns" the payment. The quest for innovative products and services running in an increasingly standardized payments ecosystem makes critically important the possibility to share information, especially payment information, and data across workstreams. Payments processing, optimal routing, resolution of data inconsistency, and effective payment data enrichment emerge as the priorities on the list of the functions of a payments processing system. The inefficiencies and challenges in the payments processing life cycle cannot be resolved with legacy technology alone. That too often requires manual intervention to deal with incorrect or incomplete details provided in payments, leading to unnecessary repairs, incorrect routing, exceptions, and investigations as well as silos for payment data and payment routing by payment method.

Banks are in the process of assessing how cloud-based payments platforms may help them evolve their product offerings by connecting to emerging rails and comprehensively accessing the rich data made available from all payment transactions. A payment must be executed immediately, and any potential internal problem that may cause the payment to be rejected has to be eliminated upfront without manual intervention. Payments require intelligence and optimization to be properly executed, and properly executed payments become a strategic asset for a bank, allowing market differentiation by use case and greater recipient satisfaction and loyalty. An "intelligent" payment platform is one that enables the banks to decide the best method for processing payments to provide their customers the most recent liquidity information to use for that payment in real time.

The focus for banks is primarily to ensure that the data processed is clearly understood and to give the tools in the hands of the institution's product management team to generate new products and offer new services to customers, and operationally reduce the cost while giving better visibility of the expense and risk factors. Training-related and operational efficiencies activities constitute an integral part of a bank's proposition, not only within the bank itself but, most importantly, also with the end customers who are asking for more actionable data insight, recommendations, and a better overall experience.

With payments systems around the world currently based on different standards, there is inevitably a fundamental lack of interoperability. In many cases, payments are translated (i.e., converted) at payment gateways with the not-so-unusual truncation and loss of relevant information. Of course, every bank in the payments business is doing something special for its customers to remain competitive and stay profitable. It's important, however, for the customer to remain with standard processing as much as possible. The application of AI in the rich payments and statement data makes it possible to better understand customer needs and gives the bank an ability to offer personalized products and services that are supported by configurable workflows that banks can offer to the end customer as a self-service configurable feature.

By 2025, ISO 20022 is set to become the de facto standard for payments processing by a majority of countries. ISO 20022 processing aims to provide more data, detailed information, and increased interoperability. Banks will receive large amounts of data—both structured and unstructured—and all these additional data sets can be leveraged and used for better insight into customer behavior. ISO 20022 implies that corporate services will have the advantage of better reconciliation, improved transparency, and in-depth payer-to-payee information across business-to-business channels. The migration to ISO 20022 standards is an opportunity for banks to overhaul their payments processing as well as their overall service offerings to customers. This will give banks the chance to take a step back and look at their whole payments processing system to establish how to make the most of capturing, storing, and managing the additional payments transactions data in new ways to create value-added information for customers.

Many changes are being introduced in the payments world, and much more innovation can be expected with the launch of ISO 20022 and the increasing adoption of real-time payments. In the U.S., for example, payments systems have been in place for about 30 to 40 years with no significant changes since then. In Europe, there is Target2 and SEPA, but that was almost 15 years ago, so there has not been significant change either for reasonably old systems that will not be able to accommodate all the changes introduced by ISO 20022. Aite-Novarica Group anticipates that in the next five years, banks must come up with new payment systems capable to exploit the benefits of ISO 20022 and real-time/instant messages and the rich data within them. Banks, at the pace quicker than that of end-user adoption, will have to make drastic changes in their payments systems to meet demands.

There is, however, an essential caveat that both banks and fintech vendors must always keep in mind to avoid over-promising benefits from the ISO standard: ISO 20022 is just the envelope that will be passed around without understanding the content of the letter inside. In other words, with ISO 20022 messages will be exchanged with rich data sets, but the relevance of such data cannot be determined by the carrying message. Only the sending and receiving parties will determine which data to exchange and for what reason. The ISO standard ensures only that such data is correctly and securely transferred between the parties. Aite-Novarica Group believes that while banks will start using the new ISO standard to process payments, most likely the banks' back-office systems and the customer's ERP and accounting systems will not be ready to fully reap the benefits of ISO 20022 for some time to come. It will take time for business partners to decide which data to exchange in a way that can be automatically processed by their respective IT systems.

In conclusion, business parties will likely continue to generate legacy payment transactions and continue to send free-format data. Fintech vendors that want to offer applications ready to elaborate ISO 20022 messaging formats for payment processing must develop ubiquitous intelligent software applications (e.g., one-to-one translation, one-to-many translations, and many-to-one translations), capable to automatically normalize data extracted from multiple sources (e.g., the FI, the corporate enterprise systems, basic accounting software modules) and properly update specified fields and generate translators, both to and from, particular message standards. When selecting a payments platform, it is critical to verify that it is built to ISO 20022 standards, so that as the industry matures, FIs are ready and able to meet industry demand.

# COMPLIANCE

Only by understanding the content of a payment transaction—regardless of types of payments (e.g., high value, low value, instant, or cross border)—all processing systems will be capable to route instructions, balance efficiency in the payments life cycle with high levels of automation, conform to all existing and new regulatory and compliance requirements, and execute payments with consistent accuracy and finality. There is a growing demand from corporate users to embed the execution of a payment with sanctions, compliance, and fraud checks incorporated into both legacy and emerging payment rails to avoid delays, ensure faster confirmation, and achieve better service levels and user experience. Online transactions are subject to financial crime, and cybersecurity is among the top concerns of corporate treasuries. Aite-Novarica Group anticipates that payment compliance, sanctions, Know Your Customer, AML, and fraud detection can be tightly integrated and available on cloud-based architectures.

The convergence of messaging standards due to ISO 20022 compliance between cross-border and domestic payments infrastructures will enforce the alignment of payment services at different levels. With so many legacy systems within each of the bank (and corporate client) silos, it can be difficult to agree on a strategy that meets the long-term needs of the bank while existing within the short-term constraints on each payment workstream. Banks must update current payments and reporting systems to capture large data sets coming from many different sources in different formats. In addition, banks will face challenges in retaining and storing old data for regulatory compliance.

Integrated compliance within payment processing as part of the payment life cycle is an extremely important aspect of a digital payments platform. The change to the message formats will also lead to downstream impacts, such as complexities in reporting and analytics, accompanied by additional storage costs. The best way for banks to manage the impact of rapidly evolving customer expectations in a payments modernization effort is to partner with an agile, innovative, and experienced fintech services provider. Banks are imagining complete comprehensive payments life cycle solutions that embed payments processing with mortgage installments, forensic and compliance checks, and insurance coverage. If the bank wants to use the best-of-breed approach with some of the existing investment, it can very easily integrate APIs to make a call and consume the needed app. Banks want a comprehensive solution that addresses both the friction in payments processing pains and compliance-related processing inefficiency. Banks are better off by adopting a modern payments solution on the cloud using AI techniques,

such as embedded NLP and ML, providing customers with several API plug-ins, data normalization, enrichment, and payments categorization for better customer insights to provide personalized recommendation with new products and services. In addition, an integrated compliance solution for sanctions and AML can be further leveraged for operational efficiencies to reduce integration risk with faster response. If required in the future, bank users can just turn on the fraud detection solution. Banks should also use AI-based solutions to gain competitive advantage by offering innovative new products and services, and achieve operational efficiencies by reducing manual intervention and inquiry and investigation costs. The solutions can also improve margins by optimizing payments processing costs through reducing manual intervention and chargeback costs for non-straight-through processing transactions. Revenue can be increased by offering targeted and personalized products and services while significantly increasing capacity, without increasing labor costs due to automation for future volume growth. Product innovation in a competitive world requires the ability to create new products using insights and data to enable faster time to market. Key to success is also the ability to improve customer experiences, process customer payments faster, send confirmation and statements on time, and produce better cash visibility to improve the customer experience. AI-based solutions enable banks to reduce the cost of ownership by performing auto-repair and enrichment that reduce manual review time and increase processing time efficiency of the systems involved to process payments. It is a fact, however, that these systems are often based on historical legacy that weakens the benefits of true interoperability and integration.

# CLOUD

The opposite of entirely replacing legacy systems is creating a way for these systems to speak to each other. This can sometimes, although not always, create a patch that is not sustainable without more significant changes to the payment infrastructure. It is critical to understand the capabilities and flexibility of the underlying infrastructure to allow enough flexibility to adapt to future needs, which remain yet unknown. Integrated compliance is also another key factor: the processing of AML, KYC, sanctions, and fraud as part of the integrated systems solution is ideal, so the user is not forced to buy and manage other systems for checking compliance and fraud. Nowadays, the systems are available in a hybrid network, whether on cloud or on the bank's own network. FIs can create special environments wherein they can continue to work with the legacy systems in-house and complement the missing functionality through service-based and scalable offerings available on the cloud, thanks to the use of APIs.

To upgrade and transform their legacy systems and regain competitiveness over the coming years, FIs must follow a disciplined approach that begins with performing thorough cleansing of all data sources, followed by data normalization and data enrichment to make the data immediately usable, followed by value-added services that present this data to provide detailed insights and analytics, and use the information to provide innovative products and services. The applications set must embed out-of-the-box interoperability with regulatory and financial crime compliance modules, such as sanctions screening and transaction monitoring. By leveraging AI and ML to enrich data, monitor payments, provide insights and analytics, and optimize process execution, the final implemented payments processing platform is ready to monetize the innovative products and services off the back of clean, normalized, enriched, compliant, sanctions-free, and secure data.

Fintech innovative applications, microservices, and APIs have created significant cost benefits that can be fully reaped moving to a cloud-based architecture. Experienced cloud vendors can offer straight out-of-the-box new packages as, for example, an intelligent Platform-as-a-Service that leverages AI or service-oriented solutions. That way, the banks don't have to make prohibitive investments to move to the new service offering. They can start using cloud services on a pay-per-use basis at a cheaper rate and offer solutions comparable to much larger banks. The large banks are already offering or are in the midst of offering cloud-based solutions, and this generates a significant change that is not only technical but, more significantly, a change in business

model going from capital expenditure to operational expenditure (i.e., variable, when needed). If a bank is not planning to migrate to the cloud or use a payments platform that either replaces legacy systems or allows legacy systems to communicate, that institution is fighting against rising costs, inefficient operations, redundant regulatory compliance requirements, competitive challenges, and a fragmented and subpar user experience.

Banks confirm to Aite-Novarica Group advisors that the ability to execute a long-term end-to-end payment strategy depends on the implementation of a payments platform with an API-based cloud infrastructure that makes it possible to introduce new functionality, products, services, and offerings with a quicker time to market, and improved fraud prevention and regulatory compliance that are made possible by implementing requirements once—and not multiple times—across each payment stream.

Fintech vendors deploy cloud-based turnkey integrated compliant solutions that become an alternative option for FIs that still want to continue to use their existing applications. Further innovation comes from vendors that deploy core AI capabilities to offer new innovative products using insights, analytics, and recommendations and also to look to increase operational efficiency, improve the IT infrastructure deployment costs, enhance customer service, and reduce any manual intervention. This makes it possible for the vendor to enable an FI to generate new products and services and improve the FI's top-line revenue growth and retention. With improved visibility, analytics, insights, and reporting capabilities through centralized and normalized data, both the bank and its clients' end users improve the access to time-sensitive investment opportunities, assess and mitigate risk, predict cashflows, eliminate manual intervention, and develop more accurate forecasting decisions.

Banks can expect that cloud-based payments platforms will provide them with features that reduce manual intervention, cut fraud and false positives thanks to accurate and normalized data, perform intelligent validation and smart routing, improve the use of internal workflows and streamline processes, offer personalized products and services, enable the use of predictive analytics to better serve customers, and detect data quality blind spots by identifying missing, misplaced, and incorrect data. Additional cloud-specific benefits can provide future-proof technology thanks to modular and resilient microservices-based architecture; cost-effectiveness due to trading upfront capital expense for operating expense and eliminating recurring maintenance and installation

costs (e.g., hardware and manpower); development and launch of innovative products and services that expedite time to value; improved operational efficiency through reduced hardware, software, and data center overheads; automated timely upgrades through regular, non-intrusive upgrades; and licensing flexibility that ensures features are activated on an as-needed basis.

# ACTIONABLE INSIGHTS

A comprehensive review of the new payments landscape is bringing banks to consider which existing investments in their core systems they should retain and which they should remove, being built over time and now too coated with patches to be further utilized in a cost-effective way. An innovative intelligent payments system with modern architecture is able to intelligently process, normalize, convert, enrich, validate, reconcile, and route any type of payments transaction. This intelligent payments system construct is capable of linking many separate data sources (e.g., core applications, middleware, and gateways) to varying end-point destinations, with different workflows being dynamically invoked as needed when the information flows through, based on the gaps in the originating applications. The end result is a single digital payments platform for all types of payments transactions processing and connectivity—a cloud-based scalable system that provides the flexibility to merge compliance and internal legacy applications—while gradually decommissioning and replacing old systems by consuming cloud and microservices-based advanced and modern applications via APIs. Such construct utilizes AI to process, convert, enrich, validate, reconcile, and route any type of financial transaction using workflows dynamically invoked as needed.

FIs want to enhance the opportunities they had so far from more "traditional" payments systems, historically introduced one at a time as new payment methods became available to the market. These payments systems had not been designed to communicate with one another, developing the silos we see today. Each payment system is typically responsible for its own set of channels and formats, as well as their own fraud prevention, AML, and regulatory compliance components. This inevitably creates excessive redundancies that lead to a fragmented customer experience. Banks must instead resolve this issue for their consumers and corporate clients by leveraging ISO 20022 messages with a modern architected payments system that is API-ready and agile enough to meet ever-increasing customer demands.

History has proven that most of the bank legacy systems are significantly robust in their performance since they've been tailor-made for a specific purpose. Yet, they are not ready to accommodate rapid changes, and this creates a limit in today's environment in which robustness must be accompanied by flexibility to meet customer, market, and regulatory requirements in a timely and cost-effective manner. Banks have not always had the appetite—or felt as a market priority—to replace or, at least, to upgrade their core systems to the latest standards as long as mission-critical systems are performing

adequately. Middleware and gateways have been bolted into FIs' technology portfolios, under the constant risk that these patchworks are no longer supported by the vendors that originally supplied them. This leaves banks struggling to holistically evaluate their payment processing environment to satisfy the growing demands of much higher digital consumption from individual and business users, shareholders, regulators, and the customer base.

Banks recognize the need for a more fluid user experience with a single view for all payments information and activity that comes close to replicating the ease and clarity of more mature and widespread consumer experiences. Since banks will start offering solutions trying to leverage—as much as possible— international and domestic ISO 20022 payments standards, the space left in which they compete will be turning data into information and providing value-added products and services to execute the decisions made on such information. Banks must look at the content of the data and bring in AI and ML and other analytics to produce sophisticated and actionable recommendations and insights. This makes it possible to monetize payments data and offer new products and services that optimize banks and their clients' processes. The increased level of acquired data can be used by a bank to reduce friction in payments processing and compliance checks to faster confirmation and reconciliation. This will help FIs reduce risk, provide better customer service, and improve margins. Financial crime compliance, including sanctions and tackling payment fraud, is a significant threat in a real-time environment and one that old legacy systems can hardly manage.

While it is foreseeable that there will be an increased amount of new data available in ISO messages, the full exploitation requires a careful and thoughtful analysis and review of such data. ISO 20022 with rich and data-intensive XML formats and multiple variations, such as CBPR+ and HVPS, provide a way to specify structured data fields along with an option to denote unstructured information. This also increases the speed of various domestic payments systems to interoperate with cross-border payments. To make the best use of message capabilities and turn this data into executable information, banks and corporate users must quickly learn that their applications must not simply copy old unstructured fields into new (still unstructured) ones but must perform additional data interrogation, clean-up normalization, and enrichment, for example, by correctly splitting, formatting, mapping, and addressing data into the correct fields.

This is an ongoing industry issue—one that will continue to some degree even with the best intended standards. If not promptly resolved, it will dilute the full benefit of ISO messaging structured information: better management of regulatory compliance and cost-effective AML and compliance programs with less false positives. Additional structured data can be leveraged into an intelligent payment routing and automation mechanism to meet client expectations for payment delivery with immediate confirmation. For example, AI-based smart routing can route payments via various domestic or cross-border payment channels based on the entire payment content, such as currency, amount, value date, beneficiary country, or type of customer (e.g., premium, basic, new).

An "intelligent" payments platform enables the bank's customer to have better visibility of the status of progress of the payment and redirect it in case of unexpected changes with a system that enables this based on the predetermined criteria. Similarly, an "optimized" payments platform is one that ensures the most direct and effective flow of money along the financial value chain. An intelligent payments platform with an integrated and interactive user interface (UI) offers visibility, analytics, and insights, and the possibility for the user to control and manage the end-to-end flows through intelligent optimizations. And that becomes important for the bank not only in terms of its own operational efficiency, but also in terms of managing settlement risk. If there's any exception or issue with an inbound or outbound payment, the platform must offer the full view with interactive rich interfaces that give the view of dashboard-driven functionality to the operational user, who can then drive the system. The configurable and modular UI empowers bank (and corporate) users to design a dashboard of payments and customer data relevant to service-specific needs in their business area.

Payment-related data, such as value date, currency, amount, beneficiary, beneficiary bank, sender, and other possibly free-format information, can be fed to AI-powered applications that undertake an intelligent automatic enrichment of incorrectly formatted messages and perform intelligent routing of payments. These quick, cost-efficient, and context-driven applications understand the purpose of each individual field or tag within the message and treat any repair or enrichment task differently as a result.

The ability to leverage advanced ML and NLP techniques on unstructured payment data enables the bank to eliminate costly manual checking and reparation of badly formatted received data as well as provide valuable integrated and enriched data analytics and insights to payment product managers and operational end users. The applications plug

the gaps left by the legacy core banking platform and give the FIs a modern, future-proofed payments platform. The ability to access the system with a single login and get a view into all payments activity regardless of rail, with the ability to utilize the rich data in new ways, generates an improved customer experience that represents a very important criterion that bank product managers must consider when presenting their corporate client executives with the benefits of selecting a financial services partner.

# CONCLUSION

To avoid the risk that the topics previously presented are based only on theoretical elucubration, Aite-Novarica Group's research applies the methodology to validate the findings with real-case scenarios and implementations. Payments hub vendors that are ahead of the curve and looking holistically at payments processing have pioneered the practical application of AI technology in the payments industry. As competitive differentiators, they all provide a holistic solution throughout the entire payments processing value chain, bringing in the AI capabilities within that. Vendors place attention to reducing customers' total cost of ownership by minimizing manual intervention, increasing market share by innovative new products, automating the entire payments processing, and giving the user a certain control via a configurable workflow under the acknowledgment that businesses do not remain static. Aite-Novarica Group finds that the average bank that runs multiple (e.g., seven or eight) back-office systems and interfaces with five to six enterprise systems (e.g., ERP, treasury management system, accounts payables, accounts receivables applications, accounting software packages) finds in these vendors, the payment backbone that connects the back offices to the various clearing networks. Aside from offering the automation and overall efficiency, a payments hub gives the bank the necessary visibility to understand the payment status at any point in time of a transaction life cycle. Increasingly, banks, fintech firms, and even merchant payment processors are also becoming very conscious of the need to cover the compliance side of every transaction in terms of sanctions screening and transaction monitors.

Among the players to consider is Pelican AI with its native ISO 20022 and cloud-native core infrastructure payments platform. It doesn't matter whether the payment originates as cross border or domestic (e.g., SWIFT, SEPA, Target2, ACH, or instant payment). Its modern intelligent payments system runs all transactions on the same backbone, reduces integration complexities, and optimizes resource utilization to achieve cost efficiencies across end-to-end payment processing. The platform's microservices offer pluggable components that can be consumed routinely via APIs, applying the same logic to all systems at the same time using the cloud.

Banks' top priorities to service corporate customers' payments must generate new revenue streams while keeping costs under constant control, strengthening risk management, and adapting to emerging payment streams. Banks can implement—in

collaboration with a fintech partner—a modern intelligent payments platform to meet these goals in the long term by keeping in mind these recommendations.

### Banks:

- Choose to interface (or replace) legacy payment systems through careful analysis of long-term goals and current limitations
- Choose to engage a vendor partner for a strategic and long-term relationship in which both sides understand the legacy infrastructure of the FI and can help determine the necessary steps to a more mature and flexible back end
- Evaluate integration challenges with compliance applications and choose an approach to minimize risk with an integrated platform
- Collaborate on a business case that speaks to business executives and explains the long-term benefits of infrastructure modernization
- Update existing payments and reporting systems to capture large data sets and dedicate the resources to develop value-added services that will attract individual and corporate end users seeking actionable insights and robust data and analytics
- Look at the content of the data and bring in AI, ML, and other analytics and sophisticated recommendations and insights to provide comprehensive forecasting and reporting capabilities
- Leverage a cloud architecture for quicker time to market, cost savings, and flexible architecture

### Fintech vendors:

- Develop comprehensive solutions across payment rails to send and receive payments information with rich data content with integration of fraud, risk, and compliance tools
- Include functionality that intelligently repairs, enriches, and routes payments in a configurable and user-friendly platform that integrates easily with other systems as well as fraud and risk solutions
- Compete with others in the space on the data and the value-added products and services as well as the ability to meet any future industry demands

- Create lessons learned, best practices, and insights to business case creation to guide and education FI partners
- Provide a clear way to monetize data by organizing, translating, and deploying this data to make corporate end users' lives easier

# ABOUT AITE-NOVARICA GROUP

Aite-Novarica Group is an advisory firm providing mission-critical insights on technology, regulations, strategy, and operations to hundreds of banks, insurers, payments providers, and investment firms—as well as the technology and service providers that support them. Comprising former senior technology, strategy, and operations executives as well as experienced researchers and consultants, our experts provide actionable advice to our client base, leveraging deep insights developed via our extensive network of clients and other industry contacts.

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