

Thought Machine

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ADVANCING PAYMENT INNOVATION:

How platform-centric architecture is speeding up the pace of change



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Introduction

Since the inception of modern banking, the payments space Financial institutions must adopt forward-thinking has been in a constant state of evolution. Now, financial approaches, and the platform-centric payment approach provides a robust foundation for modernisation. These institutions are undergoing unprecedented change. The platform-centric architectures allow for greater flexibility market's numerous headwinds, including regulatory mandates, emerging instant payment systems with new and control, scalability, cost and operational efficiency, requirements, modern standards such as ISO 20022, and greater ecosystem support, and more rapid innovation - all elevated customer experience expectations for payments, essential for established financial institutions positioning all place pressure on the need to innovate. foundational payment capabilities for modern demands.

The technology underpinning payment solutions for many financial institutions has often been architected as a reflection of a slower pace of change, more static environments and use cases, and less demand for agility and flexibility. Now there is a need to move from being reactive to proactively embracing payment change.

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FINANCIAL INSTITUTIONS AND PAYMENT PLATFORMS:

Navigating complexities in the modern financial landscape

The payments landscape today poses both opportunities and frustrations for financial institutions. Modern payment platforms are centred around real-time processing, distancing themselves from outdated batch processing methods.

Unfortunately, most internally produced tech solutions in banking are inherently anchored to legacy practices and struggle to pivot towards these real-time requirements. These legacy systems struggle to be agile, adaptive, and, more importantly, interconnective. Below are some of the main concerns that these institutions face.

Legacy architecture and fragmentation

Dated systems architected for earlier eras of payment requirements can hinder financial institutions' ability to evolve support for future use cases. Beyond this, integrations with third-party services can be limited for these systems. The payment processing systems and their associated internal services, such as FX or fees engines, used by financial institutions have become fragmented, resulting in separate processes, data trapped in silos, and inconsistencies in customer experience.

Moving from monolithic systems to modular architecture:

Many financial institutions are transitioning from monolithic, tightly coupled solutions to modular, loosely coupled, outcome-driven platforms. These modern approaches prioritise customer-oriented experiences and flexibility. Combined platform or bank-in-a-box models can become outdated with the rapid pace of technology change and are inherently constrained, reducing agility.

Increased risk with large system upgrades:

Modernising legacy systems can be a significant undertaking, with increased risk and complications. Furthermore, modernization efforts are often restricted by operational, budget and resource constraints. Maintaining ageing systems can increase risk, accumulate technical debt, incur maintenance costs, and impact market competitiveness.

Regulatory compliance vs. proactive change:

Regulatory mandates often dictate the pace and direction of technological shifts within banks. When combined with inflexibility from legacy architectures, this can overshadow opportunities for innovation, making banks reactive to regulations rather than proactive to market needs.



"The modern payment platform isn't just a tool it's a strategic ally, propelling financial institutions into the future of financial services."

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DEFINING THE MODERN PAYMENTS PLATFORM: Key Attributes

Flexibility and control	An adaptable platform diverse, fully interopera fast configuration upda systems are hindered lengthy vendor-driven institutions' control over
Ease of integration and maintenance	Modern platforms prio Following initial install than legacy architectur connect to a range of e and adherence to evolv
Processing latency and customer expectations	Evolving customer exp services and experienc availability. Domestic t border real-time payme legacy solutions.
Scaling and resiliency	With real-time paymen scalability becomes in payment-as-a-service p associated variability a robustness.
Data integration and enrichment	Treating data as a first financial institutions to enabling faster cross-b data from across the p insights.
Seamless adoption	While legacy solutions new use cases, moder development of new so and services without e Furthermore, as a Saas updates, with zero or n

is essential. Modern systems must support configuring able events throughout payment processing. Simple yet ates are key for accelerating time-to-market. Legacy by rigidity often designed for specific payments, with change processes significantly reducing financial er their systems.

pritise efficient integration by simplifying their tech stack. ation, scalability and reuse can be substantially higher res. For example, platforms with universal APIs that external platforms can shift the burden of maintenance ving scheme requirements to technology providers.

pectations, including increasingly real-time digital ces, further drive real-time payment demand and transactions dominate volumes, and interest in crossents is gaining momentum with significant benefits over

t volumes growing 40-60% each year, platform creasingly important. Resilience is a major benefit of platforms. Handling real-time transaction volumes and and growth without service impacts provides additional

t-class resource across the payment lifecycle enables o innovate. From fraud prevention and detection to border transactions, financial institutions can harness payment process, converting it into valuable, actionable

can require significant transformation efforts for n platforms support more seamless and efficient ervices. Financial institutions can update products embarking on extensive transformation projects. S product, platforms benefit from receiving continuous ninimal downtime.

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BANKING AND PAYMENT PLATFORMS:

Navigating complexities in a modern financial landscape

The modern, complex financial ecosystem provides the route for financial institutions to transition from legacy solutions to modern, platform-oriented architectures. Addressing key concerns is critical to supporting these transformations.

A primary concern is the perceived risk associated with externalising data. Modern platforms prioritise security at the forefront of their products, services and operations. With investment in cutting-edge security infrastructure and specialist expertise, these platforms can offer capabilities that rival or exceed legacy and in-house systems. Leveraging best-in-class security capabilities with modern platforms can benefit greatly in light of resource and cost constraints, especially when maintaining security for legacy solutions.

Additionally, renovating legacy or in-house solutions instead of migrating to modern platforms can increase rather than minimise risk. It can create the potential for added instability and service interruptions from less flexible and lower visibility architectures.

Given this context, it's important to consider five key advantages of a platform-based approach to payment transformation:



Technological integration supports transformation

A platform-centric strategy enables banks to swiftly integrate cutting-edge standards like ISO20022 and harness the advantages of cloud-native technologies. Furthermore, the use of Open APIs, alongside AI and ML, presents opportunities for innovation and operational efficiency.

Configurability for enhanced speed

Enhanced adaptability enables faster responses to rapidly shifting customer expectations. Additionally, platforms that can be tailored in real time offer a significant competitive advantage.



Operational transparency for more certainty

Configurable platform-based approaches offer more comprehensive visibility throughout payment processes than legacy solutions. This allows for more strategic and operational control and less uncertainty from 'black-box' solutions.



Operational streamlining

The shift to a platform-oriented model presents many operational benefits. These range from cost reductions and streamlined processes to quicker product deployments and enhanced Straight Through Processing (STP) rates.

Data-driven insights

A key capability for these modern platforms is the ability to power data-driven analytics. This is invaluable for various operations and use cases, from fraud detection and risk management to detailed business intelligence.

PLATFORMS IN PRACTICE:

Successfully leveraging real-time data and anti-fraud technology

At the heart of the current evolution in payment technology is a renewed emphasis on data and significant improvements in the fraud detection and anti-money laundering (FRAML) technology available. Modern platforms enable the generation and usage of data as a core asset rather than a by-product. By prioritizing control and system observability, these platforms enable financial institutions to proactively position for potential challenges, respond to market shifts, and continuously refine products and experiences. In turn, the ability to easily harness data plays a fundamental role in the technology available from FRAML providers.

Embracing real-time transactions and data

The momentum of the global financial landscape continues Historically, fraud and risk monitoring has been focused to shift to real-time payment systems, Brazil's Pix instant on outbound transactions. Traditional measures included payment system processed more transactions in the first scanning against established industry resources like guarter of 2023 than credit and debit cards combined after sanction lists, PEP lists, anti-money laundering screening only launching in late 2020. Driven by evolving consumer systems, and identifying common fraud patterns with behaviours and escalating expectations, these instant outgoing transactions. payment systems are becoming the standard for multiple Modern payment fraud and related financial crime have use cases as availability expands and payment limits increased significantly in scale and sophistication, widening increase. While local transactions currently dominate the gap between criminal innovation and the defensive volumes for real-time payments, linking and integrating measures employed by financial institutions and related domestic systems for real-time cross-border payments stakeholders. Governments worldwide are increasingly offers significant opportunities for upgraded customer scrutinising the ecosystem with updated legislation, such experiences. as the new APP fraud rules announced by the UK Payment Systems Regulator (PSR) in June 2023.

The shift to real-time transactions isn't without challenges. With recent moves towards standardisation, especially with recent schemes converging on ISO 20022, local variations can still present some complexity. Payment schemes differ from region to region, with distinct technical connectivity and operational requirements. Financial institutions are tasked with navigating operational variances such as disparate exception handling protocols and divergent non-functional requirements unique to payment schemes and regions.

Dealing with Authorised Push Payment Fraud (APP)

Regulations such as these mandate financial institutions to bridge security gaps and rank them based on their effectiveness in fraud detection and prevention. In the increasingly high-stakes APP games, financial criminals employ evolving ingenuity to target the most vulnerable.

Financial institutions are sluggish in embracing and implementing best practices in fraud prevention risk, becoming more prominent targets for bad actors and governments. However, financial institutions that adopt a platform-centric approach can easily integrate with any best-in-class provider, such as <u>Feedzai</u> and <u>Featurespace</u>, to leverage cutting-edge AI and ML technology.

The increasing impact and sophistication of payment fraud and related financial crime have raised the stakes for financial institutions and increased the importance of staying ahead of bad actors. Modern platforms with greater flexibility, broader fraud and risk provider ecosystem integration support, and enhanced observability provide vital capabilities for addressing this.

Conclusion

The complexities and demands of the modern payments landscape have necessitated a step change in approach for financial institutions, especially those with legacy architectures. Evolving customer expectations and payment schemes managing higher volumes and reach of instant payments place higher demands on the ecosystem.

Embracing a platform approach is critical to managing these evolving requirements. The approach enables streamlined operations, minimised friction, simplified integration and access to the latest technological advancements and standards, and more scalability than legacy solutions. Modernisation is table stakes for financial institutions, and progressive transformation with a payments platform strategy is essential for not just leadership in the modern payments era but participation.

FORM^J

Form3 is the market leading cloud-native account-to-account payments platform. Founded In 2016, Form3 set out to revolutionise the world of payment processing and disrupt the traditional payment infrastructure model, with an always on, cloud-native, Payments-as-a-Service platform. Today, Form3 is trusted by some of the UK's and Europe's and the US's biggest tier one banks and global financial institutions to handle their critical payments architecture. Form3 has been awarded Tech of the Future for Banks & Financial Institutions 2023 by the Paytech Awards, Payments Tech of the Year 2023 at the UK Fintech Awards, Engineering Team of the Year 2023 at the Europe Fintech Awards, Payments Innovation of the Year 2022 by FSTech Awards, and was shortlisted as Diversity Champion of the Year 2022 run by British Diversity Awards. For more information visit www.form3.tech

O: Thought Machine

Thought Machine has developed the foundations of modern banking with its cloud-native core banking and payments technology. Its cloud-native core banking platform, Vault Core, is trusted by leading banks and financial institutions worldwide, including Intesa Sanpaolo, ING Bank Śląski, Lloyds Banking Group, Standard Chartered, SEB, Lunar, Atom bank, Curve, and more. Vault Payments is a cloud-native payments processing platform – launching first with card processing on the Mastercard network, with full coverage available from 2023. The Vault platform has been written from scratch as an entirely cloud-native system and gives banks full control to build any product required to flourish in a rapidly changing world. For more information visit www.thoughtmachine.net

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