



Industry Point of View

# The New Normal In Payments

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# Foreword

Although there was a decline for a brief period in global payment revenues in 2020, due to the sudden impact of the pandemic, digital payment adoption has accelerated to an unprecedented level fueled by market conditions, customer preferences, and convenience. Disruptive technologies like IoT, Blockchain, Cloud, Artificial Intelligence and Machine Learning combined with the API ecosystem are further enabling this growth driving the industry players to transform the traditional payment ecosystem.

The “Great Restructuring” of Payments in the post-pandemic era will play a significant role in shaping the future of digital economies globally. All players in the payments ecosystem including banks, consumers, and technology providers will benefit from the massive transformation that the industry is going through related to real-time payments.

**Banks** will unlock the real potential of payments, including cross-border payments. As a result, globally, payments’ revenue is expected to grow at a 7% CAGR from 2021 to 2025 – reaching a market potential of 2.5 trillion USD by 2025<sup>[1]</sup>.

**Small and Medium Enterprises** will have better working capital to manage and grow business. They will also benefit from the reduced cost of transactions compared to traditional wires or checks. It will also improve the overall supply chain via an enhanced use of instant payments and digital currency.

**Regulators**, with the inception of Central Bank Digital Currency, will impart greater transparency and predictability and will help remove intermediaries which in turn will lead to reduced complexity, cost and time.

**Corporates and Large Businesses** will have increased liquidity of ~200 billion USD<sup>[1]</sup> over the next 5 years. They will retain float (as a result of instant payments) and will have greater efficiencies with a reduction in OPEX by ~2022<sup>[2]</sup>.

**Consumers** will have an enhanced user experience due to irrevocability and assurance of instant payment.

**Technology Service Providers** will tap this overwhelming opportunity of creating new infrastructure, providing standardization, and exploring payments on the cloud and as a service.

## This paper sheds light on how.



The payment industry is transforming and what are the key drivers of growth.



Cross-border payments are becoming fast and efficient due to the interoperability of networks and digital currency.



The open banking framework, driven by the customer convenience, is paving the way for an embedded finance ecosystem.



Payment service providers, technology providers, system integrators and fintech players are playing a key role in this transformation.



Banks and regulators are helping unlock the potential of payments by facilitating digital payment adoption through real-time payment infrastructures powered by ISO 20022.

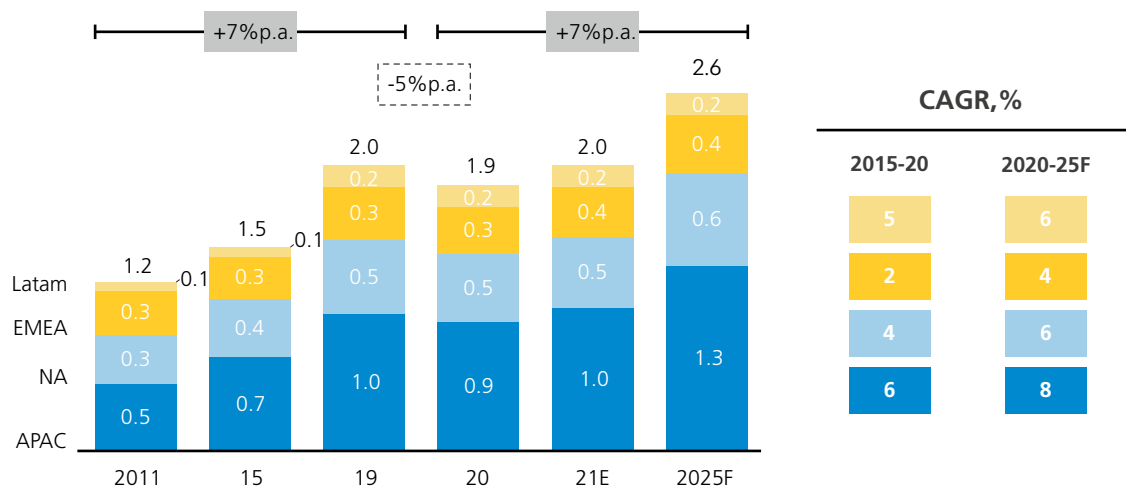
Towards the end of this paper, we will also briefly outline how LTIMindtree is uniquely positioned to help banks and financial institutions accelerate their payment modernization journey.

# The Great Restructuring of Payments

The last two decades have seen how technology has enabled the adoption of digital payments. Mobile, web, tokenization and contactless technologies aided by Europay Visa MasterCard Consortium (EMVCo) regulations have transformed retail payments and have transitioned consumers from cash to cards, digital wallets (like Pays), contactless cards and e-commerce payments.

Below is a representation of Global Digital Payments Revenue Growth in current days and beyond -

## Global payments revenue, \$ trillion



## Share of banking revenues, %

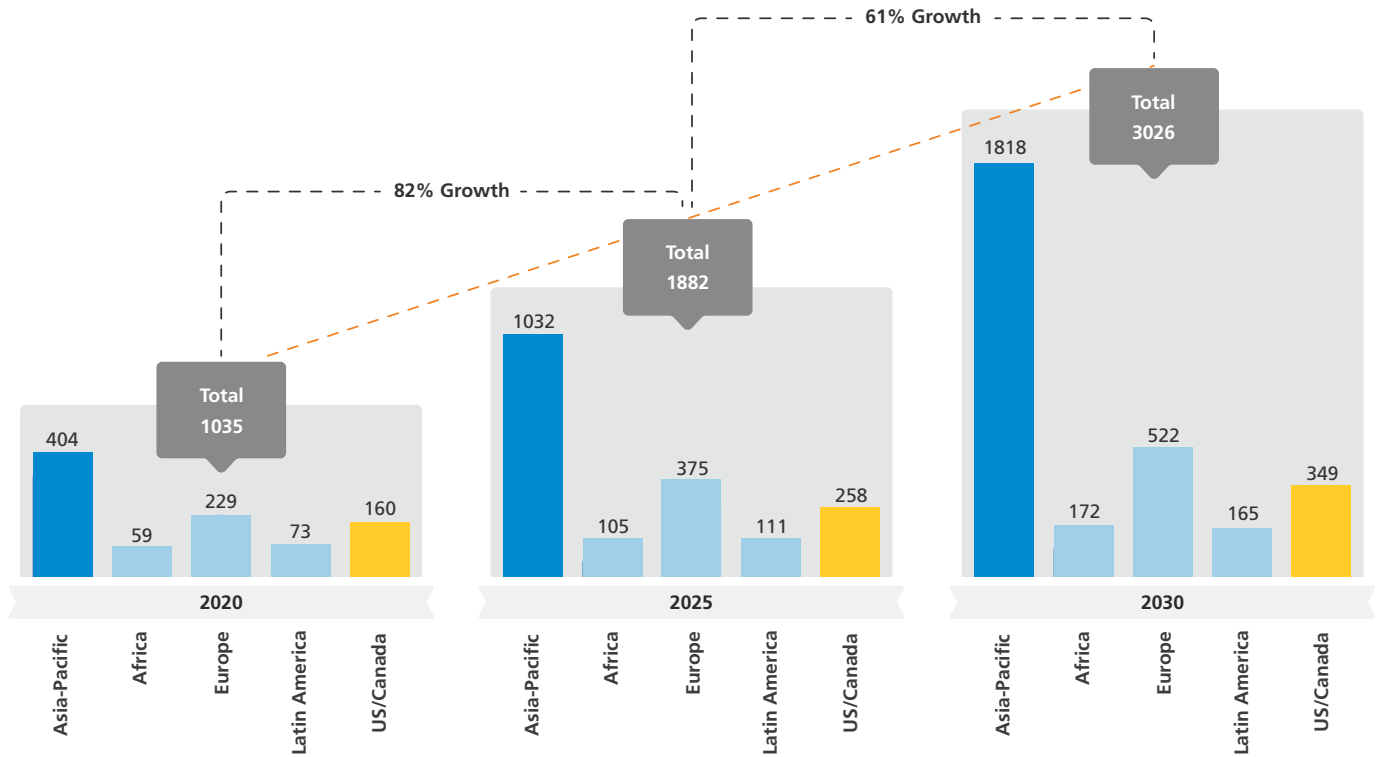


Figure 1: Global payments revenue map<sup>[1]</sup>

Source: McKinsey Global Payments Map

The pandemic has reinforced major shifts in payments behavior leading to an accelerated decline in cash usage, migration from in-store to online commerce, and adoption of instant payments. Cashless transactions have doubled over the years and are going to boom significantly in the years to come.

## Number of cashless transactions in billions



Note: Cashless transaction totals for 2025 and 2030 are projections

Figure 2: Trend of Cashless transaction<sup>[3]</sup>

Source: PwC strategy & global payments model, 2021

The emergence of ISO 20022 as a global and open standard for payment messaging, the rise of real-time payment infrastructures across the globe, and the advent of digital currency are all set to fuel the next phase of the transformation of payments in the coming decade.

Instant payments reached a global market value of USD 10.6 billion in 2020 and are expected to grow at a compound annual growth rate (CAGR) of 33% from 2021 to 2028<sup>[1]</sup>. Additionally, technology like Blockchain is set to revolutionize both retail & corporate payment. Digital tokens issued by Central banks along with private-sector cryptocurrencies (Digital Currency) are predicted to have the biggest disruptive impact on cross-border instant payments. 60 Central Banks are exploring Digital Currency<sup>[4]</sup> and 36 are already conducting pilot tests<sup>[4]</sup>.

All the stakeholders in the ecosystem will need to work together in tandem to propel this transformation.

## 01

Banks will play a crucial role by adopting the full potential of ISO 20022 & Instant Payments and enabling corporates and consumers alike.

## 02

Central bodies and infrastructures need to provide guidelines, simplify regulations, and provide the necessary infrastructure.

## 03

Payment Service Providers (PSPs), FinTechs & Technology Providers need to enable both banks and central bodies by providing the right solutions.

## 04

Corporates will have to leverage the new rails for their payment operations.



# Key Drivers of Instant Payment Adoption

## Data-rich ISO 20022

All new payment infrastructures are built on ISO 20022 financial messaging standards. This global messaging standard is set to improve the quality of data exchange, reducing manual review, and creating higher straight-through-processing rates.

## Liquidity and steady cash flow

Immediate availability of funds increases the liquidity position of corporates and financial institutions. Higher liquidity frees up lending capacity which in turn will encourage corporates to invest for further growth.

## Reduction in risk exposure

With enhanced liquidity and predictable cash flow, risk exposure (liquidity risk, currency risk, or risk of defaulting) reduces drastically.

## Predictability in forecasting

Reduced risks and increased payment assurance/predictability improve cashflow forecasting accuracy. With the rich data of ISO 20022, it is much easier to implement AI ML-based forecasting algorithms.

## Technology innovation

With the advent of technologies like open API, Cloud, and Blockchain, Financial Institutions and Fintechs across the globe are coming up with new value-added services that can be developed by leveraging the instant payment rails.

## Regulatory obligations and interoperability

With global ISO 20022 messaging standards adoption, interoperability between central payment infrastructure has laid the foundation for instant cross-border payment.

## Instant Cross-border Payment

Interoperability of payment rails aided by common messaging standards and Blockchain-based Central Bank Digital Currencies will bring in the much-needed speed and transparency in cross-border payments.

# Unlocking the Future of Payments

There is significant potential for banks to offer value-added services to their corporate and retail clients by leveraging real-time payment infrastructure. Instant payment combined with open banking initiatives provides the foundation for a wide array of new, innovative services.

**Corporate to Business** - Letter of credit, issuance of credit

**Corporate to Government** - Treasury payments, government bonds

**Corporate to Corporate** - Cross-border fund transfers, domestic fund transfers, corporate invoice payment

**Person to Person** - Payment to family members, friends

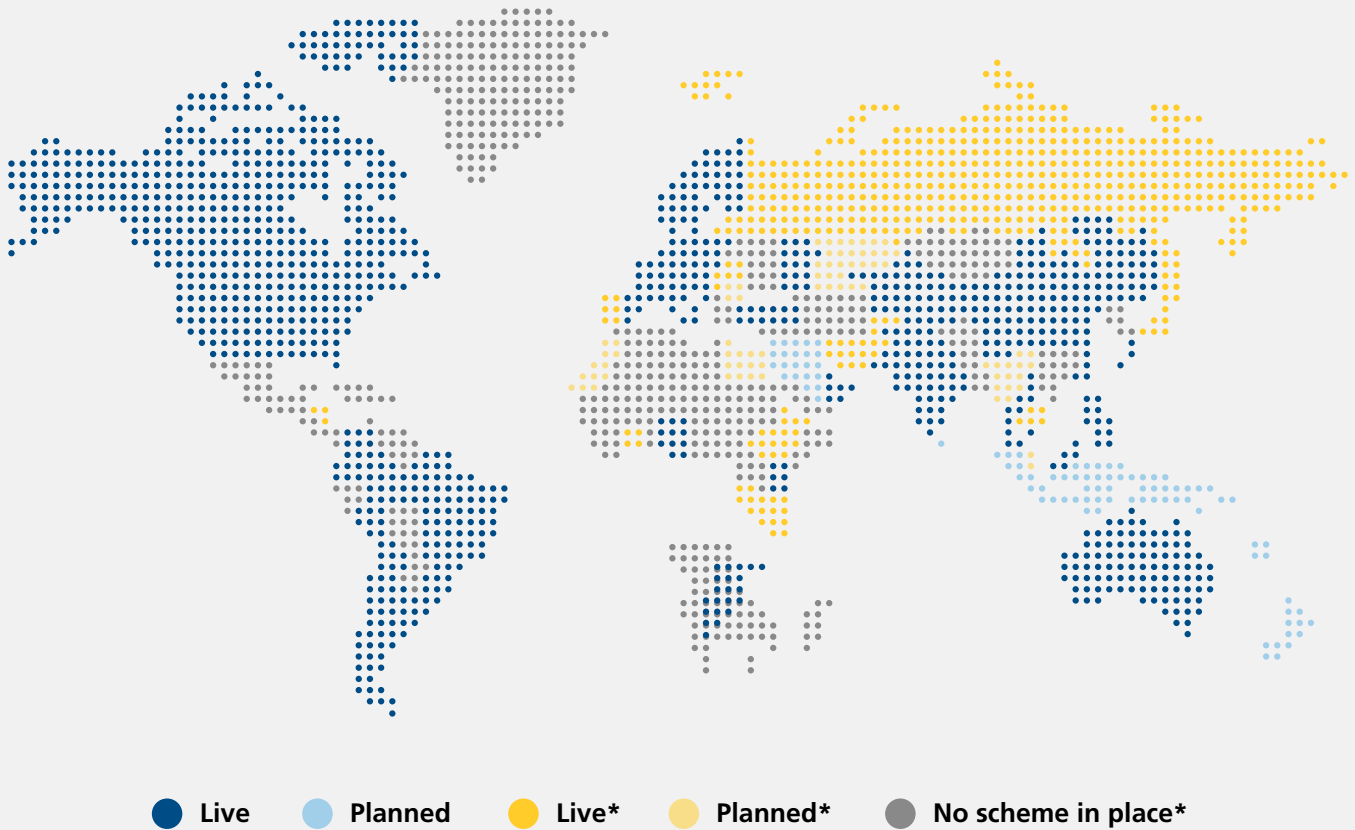
**Consumer to Business** - Merchant payment, bill payment, hospital co-pay, insurance payment

**Consumer to Government** - Tax payment, bill payment

**Business / Govt. to Consumer** - Salaries, insurance claim, government pay out for relief funds



The map below provides a view of real-time payment adoption status globally – 70+ countries are already live with real-time payment.



**\*Not included in report**

Source: ACI Worldwide 2021 Prime Time Report<sup>[5]</sup>

While the initial push for instant payment was not entirely directed to the corporates, there are already initiatives underway to either increase the transaction limit to align with corporate-level high-value transactions or build new infrastructure to support instant high-value payment e.g., Lynx in Canada<sup>[5]</sup>.

## Notable points that are essential to realizing the potential of Instant Payment.

Use of additional metadata available in ISO 20022 helps in improved transparency, greater efficiencies in reconciliation, and generates better insights from payment data.

Linking messages to business processes, makes it easier for corporates to maintain cash flows.

Implementing real-time fraud and AML detection ensures secured payment and mitigates the risk associated with irrevocability.



Increase straight-through processing rates of instant payment systems by using AI/ML technology in tandem.

Leverage the emerging central bank digital currencies to remove inefficiencies in cross-border payments.

Interoperability of real-time payment infrastructures to drive instant cross-border payment.

# Bringing Speed & Transparency to Cross-Border Payments

Globally, the value of cross-border payments is projected to hit more than US \$250 trillion by 2027, or an increase of more than US \$100 trillion in 10 years<sup>[6]</sup>. Hence, payments will never become truly “instant” unless there is efficiency, speed, and transparency in cross-border payment.

Currently, cross-border payment is having several bottlenecks and friction points that need to be addressed. The picture below summarizes the challenges that exist in the current correspondent banking arrangement in across border.

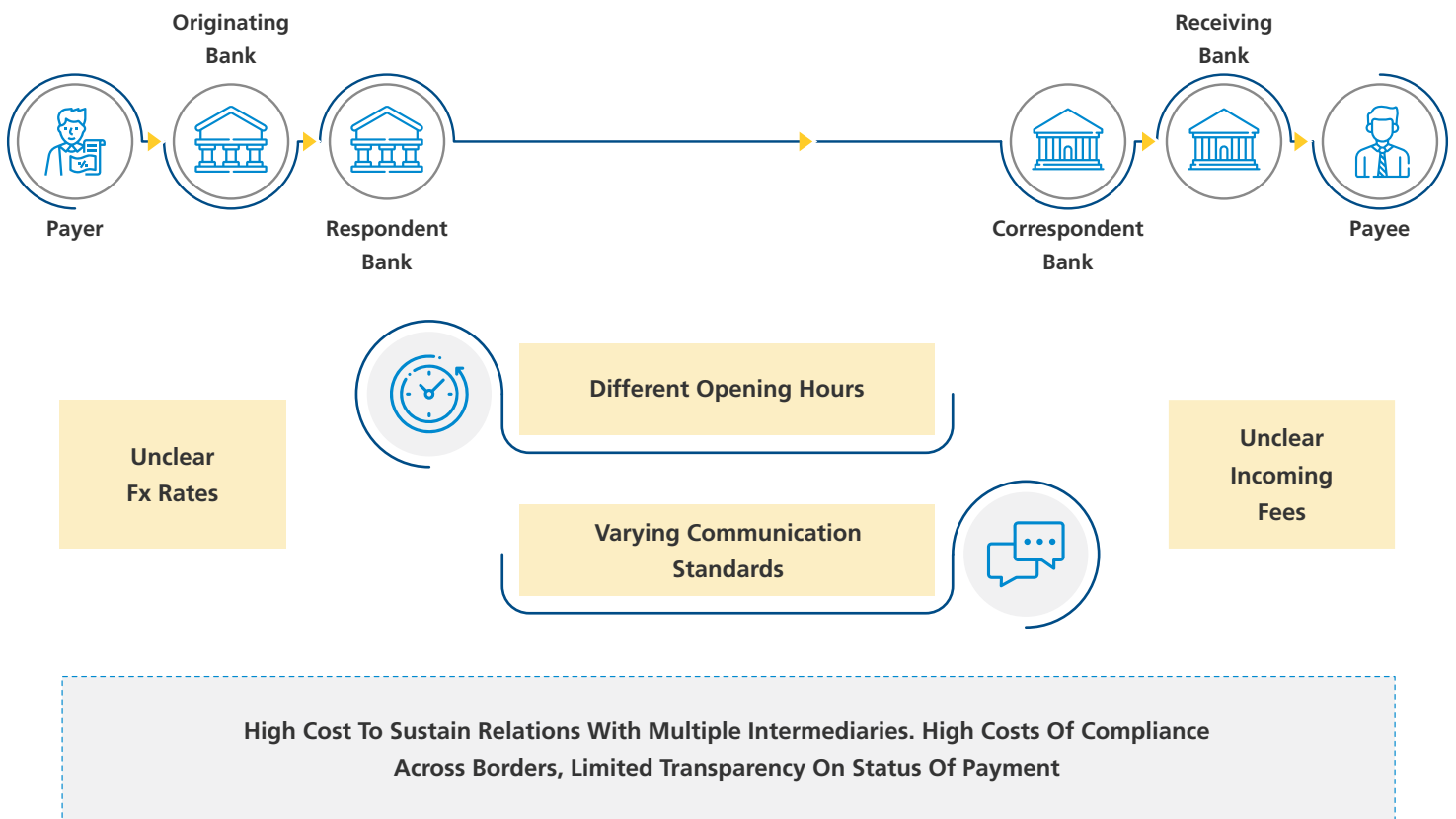


Figure 3: Cross-border payment frictions<sup>[7]</sup>

Source: R Auer, P Haene and H Holden, “Multi-CBDC arrangements and the future of cross-border payments”, BIS Papers, no 115, March 2021

## **Interoperability of payment networks enabled by common ISO 20022 standard, SWIFT GPI & CBDCs are at play to revolutionize cross-border payment and address these pain points.**

- CBPR+ or Cross-Border Reporting Plus is the first initiative from SWIFT to standardize the cross-border ISO 20022 payment types across the world and has been the backbone of the SWIFT Instant payment system. This is scheduled to go live by 2022.
- SWIFT Go is a low-value cross-border solution based on the SWIFT GPI service which provides the banks cross border instant payment rail for the low-value segment. This has been launched in July 2021 with many banks coming on board.
- P27 aims to establish a single pan-Nordic payment infrastructure that will enable real-time, batch, domestic, and cross-border payments at a low cost.
- Apart from this, Fintech players like Earthport, TransferWise, and Ripple have already built several solutions around instant cross-border payment on Blockchain technology.

### **Pilot initiatives are underway between several countries. For example -**

- RBI (Reserve Bank of India) and MAS (Monetary Authority of Singapore announced a project to link their respective fast payment systems by 2022)<sup>[8]</sup>. Under this initiative, India's home-grown payments system, the Unified Payments Interface (UPI), will be linked to Singapore's PayNow.
- Banks from US and UK successfully exchanged real-time cross-border payment messages as part of a proof-of-concept trial conducted with SWIFT, EBA Clearing, and The Clearing House.

# Digital Currencies - The Digital Future of Cross- Border Payment

Central banks across the globe are actively researching the potential of digital currency. The map below provides an overview of CBDC projects across the globe.

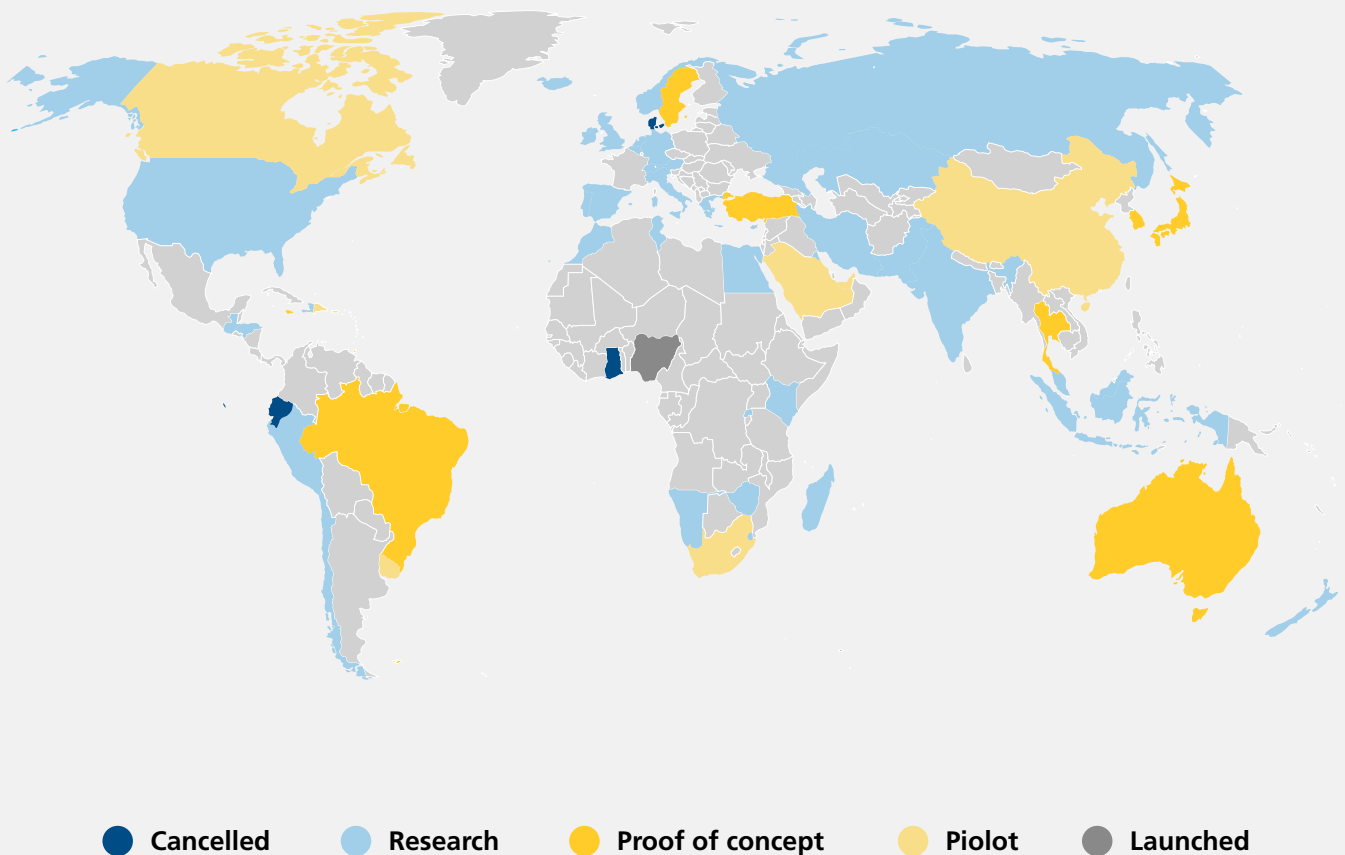


Figure 4: CBDC projects across the globe<sup>[10]</sup>

The following picture shows how CBDCs can help remove the bottlenecks in cross-border payment.

## Summary of the potential to enhance cross-border payments with CBDCs

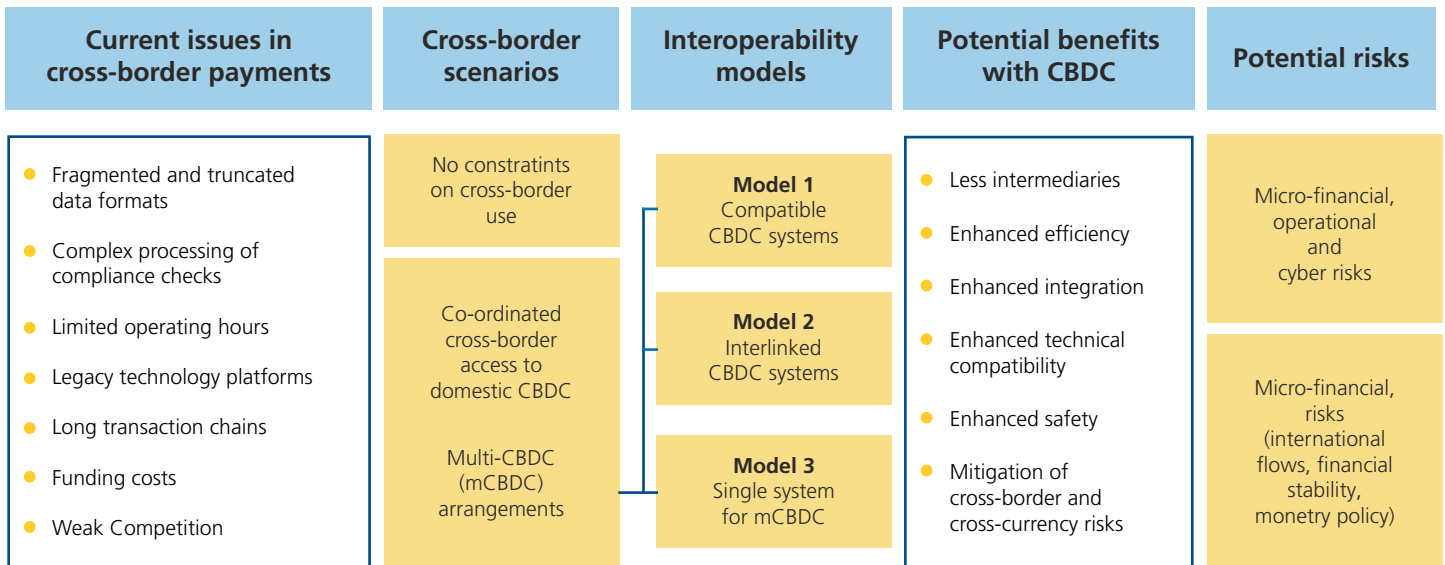


Figure 5: Cross- border CBDC system models<sup>[7]</sup>

Source: CPMI; BIS Innovation Hub; IMF; World Bank

**Model 1** considers the interoperability of separate CBDC systems through adherence to common international standards and resembles traditional cross-border payment arrangements.

**Model 2** incorporates additional interlinkages, through either a shared technical interface or a common clearing mechanism.

**Model 3** implies cooperation of a higher magnitude among central banks. It considers an arrangement where there exists a single multi CBDC system across jurisdictions.

There are initiatives underway where central banks aim to develop shared platforms for cross-border transactions using multiple CBDCs e.g., Central banks in Australia, Singapore, Malaysia, and South Africa plan to conduct a cross border payments trial using different central bank digital currencies to assess if this allows transactions to be settled more cheaply and easily.

# Payment Service Providers, Technology Partners & System Integrators are helping banks accelerate the adoption

The majority of the banks are running on legacy infrastructure, and it will take them a significant amount of time to modernize their systems and fully embrace the potential of instant payment and ISO 20022. Hence, banks are looking at off-the-shelf products, cloud-based solutions, and system integration partners to help accelerate their transformation journey.

Payment product players, in partnership with public or private cloud providers, are offering Payments Platform-as-a-Service (PPaaS) either on-premises or on public or hybrid cloud. These micro-services-based offerings, along with connectivity for major instant payment schemes, are playing a significant role in modernizing the payment ecosystem. Following is the high-level business reference architecture of the core payment engine. PPaaS providers are giving flexibility to the banks to pick & choose specific services as per their modernization initiative.



## Core Payment Engine

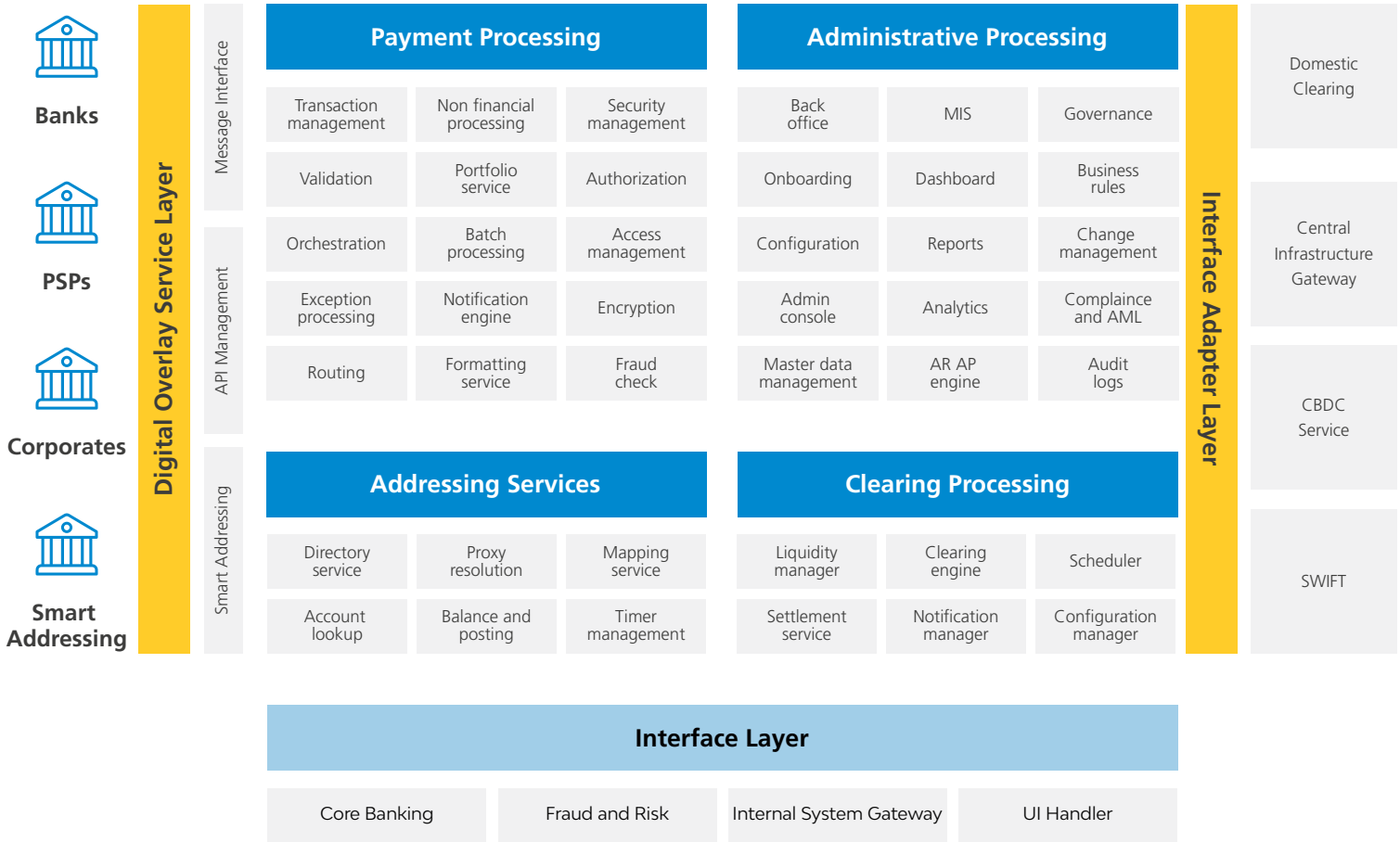


Figure 6: Reference Business Architecture of a Payment Processing System

System integrators are helping banks to do necessary plumbing with their peripheral systems, implement AI / ML technologies for generating meaningful and actionable insights from payments data & introduce automation to bring efficiency to the overall payment ecosystem.



**Following are the leading Payments Service providers with feature-rich payment hubs as per Businesswire research paper “Payments Hub Market and Vendor Solutions Overview: Technology Advances Offer a New Perspective”<sup>[9]</sup>**

- ACI Worldwide – Enterprise Payments Platform
- Bottomline Technologies – GT Exchange
- IBM – Financial Transaction manager
- Finastra – Fusion Global pay plus
- FIS – Open Payment Framework
- Fiserv – Enterprise Payment Platform
- Temenos – Temenos payments hub
- Volante Technologies – VolPay



# The Road Ahead

Instant payment combined with ISO 20022 open messaging standard provides the necessary framework to make payment fast, frictionless, and ubiquitous. While the majority of the payments will happen over real-time payment infrastructure, legacy payment rails such as ACH and Wire will continue to exist for some time until all payment infrastructures and players have modernized their payment rails and migrated to ISO 20022. Banks will have to implement intelligent routing to decide which payments to go through which rail irrespective of the payment initiation channel. This will help banks manage the risk associated with high-value payments.

Fintechs are leveraging an open banking framework to provide value-added services paving the way for embedded finance, which enables on-demand contextual financial services to customers, anywhere, any place, and at any time. Financial institutions, in partnership with fintech, are offering banking as a service (BaaS), often white-labeled or co-branded services, that even non-banks can use to serve their customers.

As the world accelerates toward embedded finance, financial institutions will have to increasingly recognize the value of ecosystem partnerships to deliver innovative payment services as quickly as possible. Below is an API-based payment ecosystem representation.

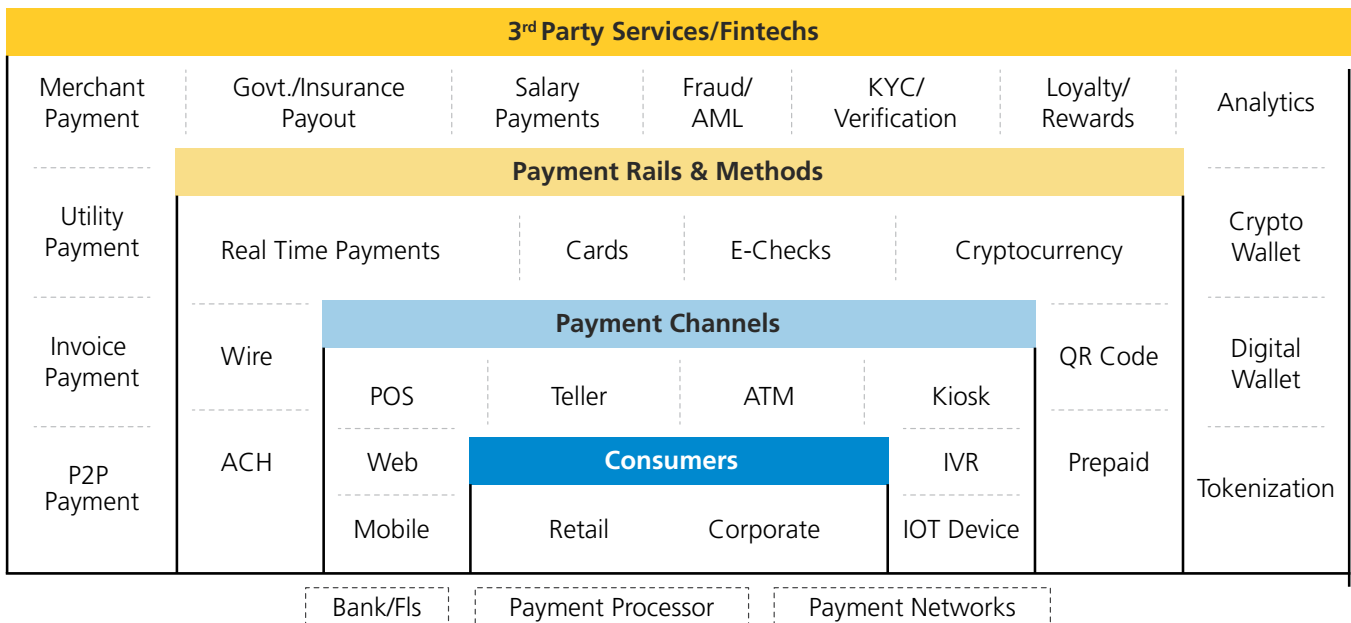


Figure 7: API-based Payment Ecosystem

# How can LTIMindtree help?

At LTIMindtree, we are powering the future of payments by leveraging our expertise in leading payment products, deep experience in payment transformation, established Blockchain practice, accelerators for ISO 20022 adoption, data analytics product FOSFOR and our partner solution.



## RTP Enablement

RTP Roadmap & Advisory

360-degree platform profiling for the future-readiness



## ISO 20022 Adoption

Legacy to ISO 20022 message transformation

Easy integration



## Real Time Monitoring

Reduction in unexpected failure

Intelligent streaming & analytics



## Payment Insights

Leverage ISO 20022

Translation of payments data into actionable insights



## Single Gateway to Payment Schemes

RTP Roadmap & Advisory

360-degree platform profiling for the future-readiness



## Automated Testing

Rapidly test and certify integration with new payment rails

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