

WHITE PAPER

Immediate payments: Beginning of a new journey



Abstract

With immediate payments initiatives gaining pace worldwide, banks have been focusing on building and implementing immediate payment solutions to comply with the regulatory requirements of regions they operate in. However, once the enhanced infrastructure and processing capability of immediate payments are in place, banks can explore further options to create new revenue streams and realize return on investments made in these systems. This can be achieved by designing and offering new payments services, finding better ways for competing with conventional and non-conventional payments players, and increasing the retail and corporate customer base by covering newer payments scenarios.

Introduction

Adoption of immediate payments is probably the most important trend in the payments industry today. The speed with which immediate payments are being adopted varies in different countries. However, regulators all over the world are putting equal emphasis on rolling out these schemes at the earliest.

Immediate payments are providing both bank and non-bank payment service providers an opportunity to offer various payments and related value-added services to their customers. Scheme regulators, banks, and other scheme participants are building solutions using technological and functional advancements, not only to make

payments easier, faster, convenient, and more secured, but also to support newer methods of making payments covering a lot of new business use cases. The impact of this advancement on personal, business, merchant, and government payments is changing the market landscape faster than ever before.

Adoption of immediate payments across the globe

'Real-time payments' has been around for quite some time now. Though started in the early 80s, it gained momentum in the last two decades with its coverage

spread across all the geographies. Leading economies like the United States, Australia, Canada, and the European regions are also in the process of evaluating /

implementing instant payment solutions. Figure 1 shows immediate payments rollouts in different countries.

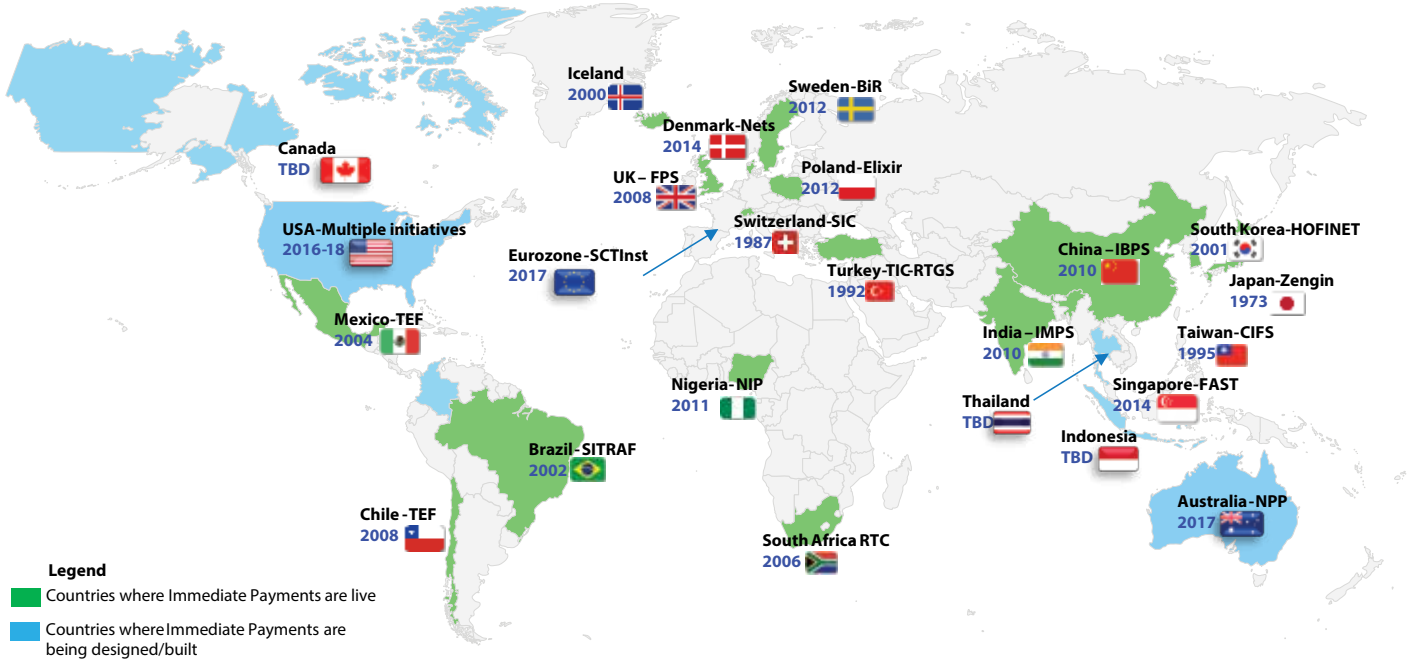


Figure-1: Adoption of immediate payments across the globe

Benefits of adopting 'immediate payments'

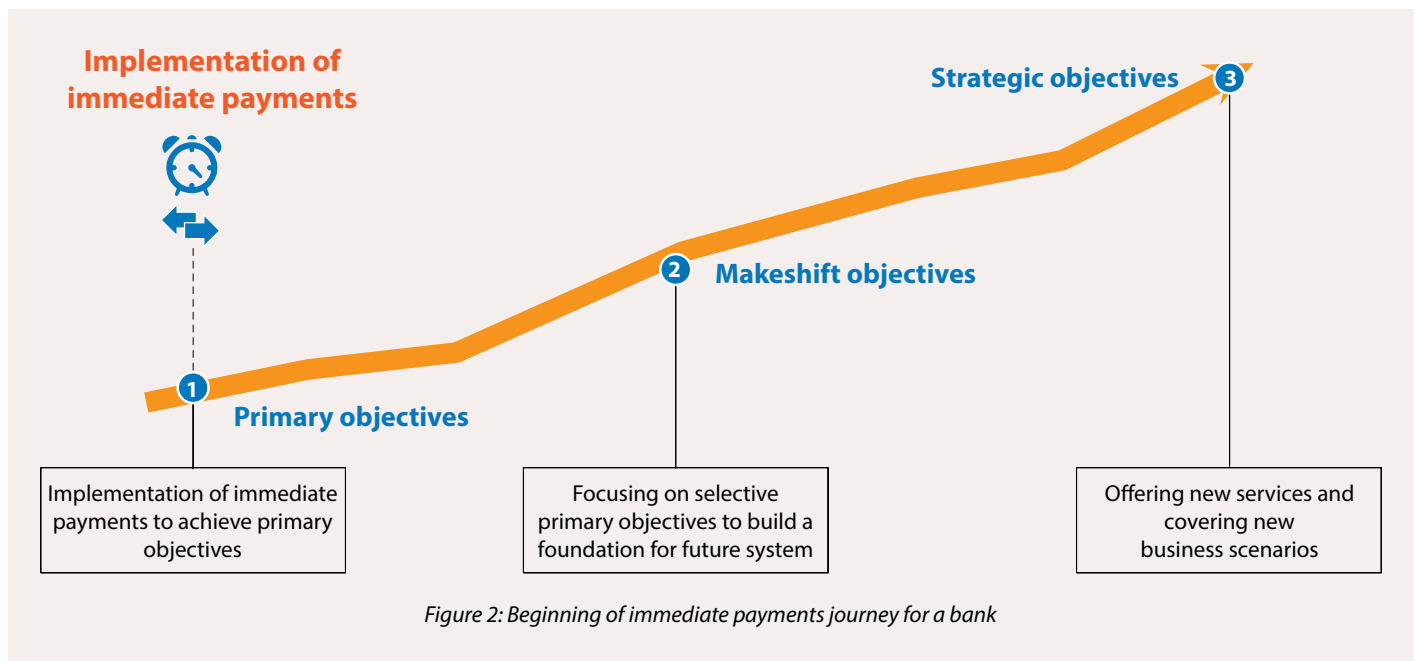
- Real-time payments system with 24x7x365 accessibility
- Immediate availability of funds to the beneficiary
- Support for a wide range of payments like utility, credit card bills, household purchase, travel-ticket booking, online shopping, donations, etc.
- Cost-effectiveness compared to other electronic payments
- Better accessibility because of higher mobile phone penetration in all developed / developing markets
- Enhanced security and authentication procedures
- Provision of interoperable fund transfer service involving various stakeholders, such as banks, non-banks (PPIs), merchants, and telecom services
- Facilitating governments to transfer benefits directly to end customers
- Catalyst in facilitating financial inclusion process by providing banking services to even the last-mile customer
- Indirectly serving the goal of central banks / payment councils in electrification of retail payments

▶ Beginning of a new journey with 'immediate payments'

Compliance with scheme guidelines is only the first step for all banks participating in any immediate payments scheme. In light of these new generation payments schemes, banks are now forced to redefine their long-term payments strategy considering the following points:

- **Scheme flexibility** for banks to design and offer payments services. For example, Additional Optional Services (AOS) in Single Euro Payments Area (SEPA), New Payment Platform (NPP), overlay services, unified payments interface in India, etc.
- Mandate from schemes to **share a part of bank-owned information with other payments players** (both bank and non-bank entities). For example, revised payment services directive (PSD2) forcing banks to share account information with service providers
- **Functional and technological advancements** in the payments space. For example, contactless payments using cards or mobiles, biometric data for authentication, distributed ledgers, blockchain technology, and a few others
- **Competition from FinTechs and other non-bank players.** For example, Ripple, Bitcoin, payments banks in India, and a few others are providing domestic and international payments services
- **Changing customer preferences** such as mobile banking, e-commerce, payments using social media, and a few more
- **Various payments initiatives across the globe,** such as International Payments Framework Association (IPFA) providing worldwide acceptance of a payments framework to facilitate interoperability between counterparties and enabling more efficient cross-border payments processing

While defining long-term payments, strategy banks may follow a three-step approach as shown in Figure 2 .



Primary objectives

The primary objective for any bank participating in immediate payments scheme is to provide its customers a ubiquitous, efficient, fast, and safe option to avail payment services. Apart from early adopters (usually the big banks), most of the banks participate in the scheme, primarily to comply with the regulatory changes.



Ubiquity



Safety and security



Speed



Efficiency



Legal and governance

During initial stages of implementation, banks may partially achieve these goals and keep building on the remaining aspects during subsequent phases.

The following details the five objectives:

1. Ubiquity

- Better accessibility to payments via newer modes of payments initiation
- Improved usability with easier ways of making payments and high availability of all systems involved
- Higher predictability with well-defined scheme guidelines and timely notifications to various parties involved
- Improved data capture using various fields (e.g., extended remittance info) to capture more details for various business use cases
- Better flexibility and extendibility for future payment use cases

2. Efficiency

- Introduction of new payment service providers (FI and non-FI) and creation of competition among them to provide better services to end customers
- Lower immediate payments costs / fees for businesses, retail customers, and entities
- Better scheme design to take care of usability, reliability, performance, information security, operations, compliance, risk controls, etc.
- Higher scalability and better adaptability for future use cases and payment volumes

- Well-defined exception handling and investigation process for all payment types

3. Safety and Security

- Improved end-user authentication during payer / payee registration and payments initiation
- Better payments authorization via advanced methods like three-factor authentication, cryptographic key exchange, tokenization, out of band authentication to detect suspicious transactions, and a few more
- Higher security via data encryption during transit and at-rest, better integrity controls and improved data retention, and disposal controls
- Stronger resiliency via better business continuity management and disaster recovery plans, ensuring timely recovery and resumption of critical services in the event of an outage
- Better end-user privacy with no sharing or display of sensitive information to other / unauthorized parties. In most of the cases, payments can be initiated with only the payer and payee virtual IDs

4. Speed

- Faster payments initiation by keying in minimum details

- Speedy payments authentication and authorization by the relevant parties involved in payments approval / processing
- Faster clearing of payments information and immediate availability of funds to payee
- High availability of all systems 24x7x365 with minimum / no downtime
- Well-defined payments processing service level agreements (SLAs) for various steps during processing and end-to-end payments execution
- Timely notifications and prompt visibility of payment status to all participants, including the end-users

5. Legal and Governance

- Well-defined legal framework for all parties involved and clear identification of their binding with each other and to the scheme
- Clear guidelines on payment system rules governing the rights and obligations of all users, consumer protection data privacy, to name a few
- Effective and inclusive governance via transparency and involvement of various stakeholders at all stages of scheme design and maintenance

Makeshift objectives

Banks can focus on specific areas under primary objectives in order to build new service offerings of their customers. These second-level or 'makeshift' objectives also include banks' participation in optional value-added services, which they can offer to their customers at additional costs.



Standardization



Interoperability



Support services



Value-added services

1. Standardization

Standardization with common messaging formats, shared message validations and predefined processing steps is a key towards unifying various payments. For any bank, streamlined and regularized workflows ensure flexibility of system(s) for future changes and reduced 'go-to-market' time for new offerings. Standardization of processes across payment types also reduces the redundancy of static / reference data maintenance in the system and operational processes.

Standardization is important, even for the scheme designers or regulators since it lowers the barriers to entry, unlocks competition, and in turn promotes innovation. Even the small players can offer payments services to their customers with standardized formats, processes, protocols, and workflows. This is very important, especially in payments, since the space until now, had been dominated by a handful of large service providers (banks), thus giving limited options, lesser transparency, and higher costs to the end users.

2. Interoperability

The next step of standardization is interoperability where standard message formats, common payment attributes, and use of unique references throughout the message life cycle enable banks to switch from one domestic payments scheme to another with minimum or no switchover time.

Though the growth of immediate payments and the pace with which they are replacing the other payment types is not similar in different countries¹, eventually all payments are going to be processed real time. Most of the banks, therefore, are laying down a sound foundation for an interoperable payments ecosystem that has already started with implementation of immediate payments.

3. Support services

As a part of new industry initiatives, regulators are demanding that payments players offer different services to end users. Under these services, the established players (especially the banks) may be required to share a part of their information with other scheme participants. Though established banks do not have a choice over sharing these details, they can still decide whether to extend their services beyond the minimum mandatory requirement set by the scheme. This could then be an additional service offering, leveraging the unescapable regulatory requirement. For example, PSD2 in Europe mandates banks to share a part of account information (account details, balance data, account identity verification) with account information service providers (AISPs). However, the banks can share additional data with customer consent (e.g., non-payment accounts, demographics, preferences, KYC details, and direct debit mandates) with the third parties to create new product and service offerings.

Such support services can provide banks an opportunity to get additional revenue by sharing details with other players.

4. Value-added services

Most of the new scheme designers encourage individual scheme participants and their communities to offer value-added services to their customers. These services, though based on the core payment schemes, are normally a matter for participants and their customers in the competitive space. Participants use the existing payments / scheme infrastructure to cover more business scenarios and offer additional services to the end customers. Under these services, participants exchange additional payments details, perform specific validations, and encourage automatic matching and reconciliation of auxiliary payments data.

Under all such initiatives, participants have to subscribe with the regulator for services that they offer to their customers. AOS in SEPA or Overlay Services in Australia NPP are some examples of value-added services.

Since these services are offered at an additional cost, they can provide banks an opportunity to create additional revenue. They can also help in capturing more contextual details and performing automatic matching and reconciliation in case of business-to-business (B2B) payments.

¹As per SWIFT white paper on 'The Global Adoption of Real-Time Retail Payments Systems (RT-RPS)', the speed and success of adoption of immediate payments varies significantly from country to country. Though the United Kingdom, South Korea, Taiwan, Switzerland, and Japan are on a typical adoption plan, countries like Poland, India, South Africa, and Brazil are moving at a much slower pace. Countries like Chile and Mexico are on the rapid adoption path where majority of their CT and DD payments are migrated within a decade.

Strategic objectives

Once the immediate payments foundation is laid, banks can design and offer new services to their customers using the same infrastructure. With new modes of payments initiation and new business scenarios evolving every day, banks can leverage their payments systems to support newer type of payments and services.



New business use cases



New service offerings



Commercialization



B2B payments promotion

1. New business use cases

Immediate payments have unlimited use cases that a bank can offer to its customers. Since the new business scenarios and use cases will keep emerging, the bank can leverage on its highly flexible architecture to support them. Some of the most common use cases for different types of payments are listed below.

- **Business to person:** Temporary employee wages, emergency payroll, urgent B2C payments (e.g., disaster relief), collection of funds (one-time or recurring) for services offered
- **Person to person:** Non-commerce payments, urgent account-to-account transfers, payments for informal services, pull / collection of funds (one-time collection) for various personal reasons
- **Person to business:** Various types of person-to-microbusiness payments, immediate bill payments with

acknowledgment, e-commerce purchases, ticket, and other bookings

- **Business to business:** Just-in-time payments to vendors / suppliers, electronic invoice processing, immediate bill payments with acknowledgment, etc.
- **Government payments²:** Direct benefit transfer to individual's accounts, salary and pension payments, tax payments, and refunds

2. New service offerings

With schemes providing the basic payments infrastructure, the participant banks can come up with their own new offerings for different customer segments. Some of the areas where these offerings can be made are as follows:

- Support for more **innovative ways of making payments**, mobile payments, digital wallets, and social media payments

- Banks have an opportunity to provide **better payments services** not only to their own customers but also to customers holding accounts in other banks. Initiatives like Unified Payments Interface (UPI) in India or PSD2 in Europe allow customers to use a single payments application to manage payments for all their accounts. With these solutions, the service provider that designs better applications will end up capturing more payments customers
- Making **authentication** simple and still more secured for the end user is a key driver for all banks offering innovative payments. Use of biometric data or multifactor authentication on various payments initiation devices are the key focus areas. For example, under UPI in India, banks are offering 1-click 2-factor authentication just by using a personal phone without any acquiring devices or physical tokens



²Use of electronic means for Government payments has unlimited growth potential. In the United States alone, for year 2017, the expected direct benefits credit transfers to individuals is expected to be over US\$2 trillion, whereas total tax collection is over US\$7 trillion.

- New technologies like **Distributed Ledgers** support smart contracts that are self-executable based on external factors or events. Banks can explore this option to trade multiple things, including physical or digital assets, company governance, intellectual property, etc

3. Commercialization

Commercialization or monetization of payments is another avenue for banks to generate additional revenue. Banks can extend payments services to other smaller players via multiple ways. The most common are listed below:

- **Agency banking – Indirect clearing participation:** This is being used in almost all domestic clearing schemes across the globe. The new immediate payments schemes also support this model so that the small payments players (banks) can offer services to their customers
- **Payments or receipts on behalf of non-bank customers:** The bank can extend its payments support to non-bank payments service providers who in turn can process payments for their customers. The payments service provider (as debtor or creditor) maintains an account with the participating bank allowing its customer (ultimate debtor or creditor) to send and receive payments. Most of the new clearing schemes support capturing,

validating, and exchanging these details as a part of their messaging formats

- **API-based solution for external customers:** The bank can support various **application-program interfaces (APIs)** from internal and external systems to propose payments and other value-added services to its customers. The bank can also define its own set of APIs to offer payments services to other smaller players. API-based solutions enable the bank to support:
 - New modes of payments initiation which include mobile, e-commerce, digital wallets, and others
 - Corporate payments and access to related details / documentation using corporate ERP connectivity
 - Payment-as-a-Service (PaaS) enabling payments utilities, payment hubs, and payments clouds
 - Compliance to regulatory changes, e.g., European PSD2 XS2A
 - Better security measures, e.g., tokenization of credit card, and a few more
 - Specific offerings for merchants and consumers by hiding bank's internal system complexity

4. B2B payments promotion

In all geographies, the rate of adoption of electronic payments for B2B use cases is much slower than consumer

payments. The major hurdle in this is the lack of simple, easily adoptable standards that can automate the reconciliation of payments and remittance data. Making the payments electronically without relevant remittance data may result in a lot of reconciliation and manual handling issues. To avoid this, bank communities can focus on the following areas to promote B2B payments³:

- All new immediate payments schemes using ISO20022 messaging formats provide banks the flexibility to capture, validate, store, transmit, and reconcile a lot of contextual / remittance information required in B2B payments. Banks revisiting their corporate channels and checking more remittance details could be captured during payments initiation
- Banks can focus on a specific market vertical and assess what formats are required for making B2B payments in that area more efficient and effective
- Further, banks can assess format differences among different industries, investigate the reasons for these differences, and evaluate if they could be merged into a single standard format capturing all the required details



³Central authorities in many countries are already in the process of promoting B2B payments. Australian NPP is working with BPAY to support payments with URLs to business documents stored on a third-party server or 'Remittance Coalitions' in the USA is focusing on standardization of message formats for electronic exchange of remittance information.

Conclusion

In today's dynamic landscape, the central banks and payments regulators are providing participants the underlined payments infrastructure and encouraging them further to design their own payments solutions. This approach provides an ecosystem-driven scalable architecture, which allows the participant banks and other players to innovate and offer a superior customer experience. In doing so, the participants can come up with numerous solutions to support new payments scenarios, additional business use cases, innovative modes of payments initiation, and value-added and other support services. This opens a door of new opportunities for both banks and non-banks allowing them to engage with new customers, support unconventional / unexplored payments scenarios, and generate additional revenue. Since the implementation of immediate payments is the first step in this process, it can be considered as the beginning of a new payments journey, but not a destination.

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Vijay heads the Cards and Payments Practice at Infosys. He has over 20 years of experience in IT services and cards and payments. He has deep experience across the value chain and in delivering cutting-edge solutions to global payment providers and banks across mobile payments, cards, loyalty, and channels. He brings in expertise across the cards and payments value chain, and has been instrumental in managing large cards and payment relationships in Infosys.



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