

## **THE SUBSTANCE OF INSTANT PAYMENTS, THEIR DEVELOPMENT AT THE GLOBAL LEVEL, PROBLEMS AND SOLUTIONS**

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### **Abstract:**

Due to the rapid development of electronic Commerce, payment methods and types of payment systems have a rapid pace of development. The article discusses one of the innovative types of payment method - instant payments, their essence, development in the world economy, as well as in Uzbekistan, discusses the problems with the introduction of instant payments and their solutions, as well as the results of tangential conclusions.

**Key words:** instant payments, P2P payments, Cross-border P2P payments, P2M payments, B2B payments, B2C/G2P payments.

The growing needs of the economy in making payments, the increase in the cost of cash flows passing through many payment systems, require the development of the payment technology market, the constant search for innovative solutions. The process of globalization, which is actively developing in the world economy, accompanied by the integration of financial markets and the formation of a single information space, imposes specific requirements on national payment systems. In this article, we consider one of the innovations in payments - instant payments. First we give a description of the essence and origin of fast payments after describing prospects and impediments to adoption.

According to the Committee on Payments and Market Infrastructures of the Bank of International Settlements, fast payments are “payments in which the transmission of the payment message and the availability of final funds to the payee occur in real time or near-real time, and on as near to a 24-hour and 7-day basis as possible” [1]. In the dynamic payments industry, faster payments have become the norm and are no longer just an option for market participants and regulators alike. Faster payments can deliver payments at lightning speed, are available 24x7 throughout the year and enable extensive exchange of payments-related data between participants. These features of faster payments scheme significantly improve operational efficiencies, customer engagement and provide better cash flow management due to reduced clearing time, settlement time and data transparency.

The global value of real time payments was estimated to be around USD 6.9 billion in 2018 and is expected to expand at a compound annual growth rate of approximately 30% from

2019–2025[2]. Cashless transactions have been growing at a rapid pace across almost all geographies. The entry of BigTechs and the rise of mobile banking have resulted in the faster adoption of real-time payments globally. Also, multiple regulations around open banking such as the Payment Services Directive II in Europe, the General Data Protection Regulation in the European Union, digital and tiered know your customer guidelines have added impetus for existing and new market participants to adopt faster payments and become part of the modernization journey by providing alternatives to legacy payment modes.

A variety of FinTech players have emerged to offer their services, including person-to-person (P2P) payments platform Venmo, digital payment service PayPal and money transfer service WorldRemit, among others. These companies provide money transfer services for the quick exchange of funds between parties, and their solutions are opening up new innovation opportunities for point-of-sale (POS), electronic invoicing, mobile payments and eCommerce.

Several nations and regions have already launched faster payments systems, and others are now taking steps to roll out their own. The U.K. became one of the first countries to offer a nationwide faster payment system with the launch of its Faster Payments Service (FPS) in 2008. The FPS network's launch has allowed other faster payments offerings to emerge and leverage the service.

Similarly, India launched its Immediate Payment Service in November 2010 to offer real-time, 24/7 interbank electronic funds transfer services to users. Funds can be accessed via mobile devices, online, at ATMs, through text messages and at physical bank branches.

In the U.S. Federal Reserve organized the Faster Payments Task Force in May 2015, which included stakeholders from more than 320 organizations from around the U.S. financial services sector. The group's mission was to explore opportunities to establish and implement a faster payments system in the country. In addition to the Fed's ongoing efforts, payment speeds have significantly improved as a result of the Same-Day Automated Clearing House rollout that began in September 2016.

The European Central Bank (ECB) will launch the pan-European ECB TARGET Instant Payments Settlement (TIPS) in 2018, a new faster payments service that aims to offer real-time fund transfers on a 24/7/365 basis.

In most countries where faster payments have been implemented, the payment industry was initially driven to implement a faster payment system as a result of a government mandate or regulation. In some countries, central banks also own and operate the faster payment system (e.g., Mexico, Iceland, and Turkey). In other countries, private operators—often owned by major banks—provide faster payment services (e.g., UK, Sweden, Japan, and Australia). Even in countries where private operators provide authorization and clearing services for faster payments, settlement services are typically provided by the central bank.

Instant Payment System is to be launched in Russia on January 2019. The system will ensure money transfers between clients of the same bank or different banks by phone number, e-mail address, via messengers and social media. In Q3 2018, IPS will also support online shopping by means of a simple identification parameter [3].

In February 2020, the Central Bank of the Republic of Uzbekistan launched a pilot launch of the "Anor" instant payment system for interbank money transfers between legal entities and individual entrepreneurs. The system is based on web services technology using an electronic digital signature. Funds received to the recipient's account via this payment system become available at the moment of their receipt. Testing of the system, which involves a number of commercial banks, including "Hamkorbank", "Trustbank", "Ipotekabank" and "Turkistonbank", was initiated by the Central Bank at the end of 2019. Pilot operation was launched on February 18, 2020[4].

According to the Central Bank, mobile remote banking systems are popular among bank customers in Uzbekistan – about 9.5 million individuals use this service [5].

The Central Bank has developed and is currently testing a system for using QR codes based on a Clearing settlement system. Several commercial banks participate in testing, and mobile applications of the corresponding commercial banks are used.

Work is underway to organize remote and biometric identification of individuals. Thanks to this mechanism, it will become much more convenient for the client to receive services regardless of the time of day, location of the client or the Bank's branch network.

In addition, based on the analysis of international experience in creating and operating instant payment systems, have been developed uzbek model for implementing the instant payment system with the development of our own approaches to implementing and interacting with the banking system – the Central Bank's instant payment System.

Real-time payments essentially have two types of clearing – credit push and debit pull payments. Faster payments schemes around the world are experimenting more with credit push rather than pull payments. In a push payment scenario, the payment service provider (PSP) has more control over the security infrastructure, resulting in economies of scale due to factors like reduced chargebacks. In a pull payment scenario, the user needs to authenticate the payment and a mandate is created against a specified merchant wherein an amount of funds is debited at a specified date. Key use cases for a pull payment scenario would be subscription-based payments, merchant payments, bill splitting, bill payments, etc.

**1. Domestic P2P payments.** Domestic peer-to-peer (P2P) payment systems allow consumers to transfer funds to peers within seconds. Examples include bill sharing applications and conversational commerce. Faster payment systems start off by offering this as a use case for customers.

**2. Cross-border P2P payments.** Increased standardization in payments messaging for faster payments systems across global markets (ISO 20022 being a key example) enables interoperability and allows users to transfer funds across borders close to real time. The TARGET guidelines in the Euro region will enable real-time cross-border payments across participating banks and institutions.

**3. P2M payments.** Person-to-merchant (P2M) payments across the world can be made instantly using the faster payments rails. Payment systems like the UPI, PromptPay and Faster Payments Service (FPS) in the UK offer request to pay (RTP) proposition in addition to push payments. Merchant-based payments will be the most dominant use cases in P2M payments and the entry of multiple merchants will bolster faster payments, making it important for merchants to be a part of the instant payments bandwagon. This can be achieved by significantly modernising merchant services like easy resolution of refunds, invoicing support and provision of overdraft accounts.

**4. B2B payments.** Business-to-business (B2B) payments help businesses to transfer funds amongst each other instantly, thereby allowing organisations to manage their cash flows better and reducing risks related to settlements. Banks are providing real-time payments services to corporates through enterprise resource planning (ERP) integration, significantly increasing straight-through-processing (STP) rates and reducing settlement times. However, a key concern for the modernday treasurer is the limit on the value of transactions in any faster payments scheme which might inhibit businesses using them for B2B payments.

**5. B2C/G2P payments.** Refunds, insurance payments, benefit transfers can be made faster and more efficient with the implementation of business-to-consumer (B2C) and government-to-person (G2P) payments. Public identifiers like national identification and mobile numbers are being linked to faster payments services to enable disbursement of such payments, provided the payment falls under the faster payment scheme limit

Figure 1. Business use cases of faster payments [6].

Countries and financial institutions across the world had to overcome multiple challenges in the adoption of faster payments. These are:

1. **Legacy payment infrastructures.** Modern payment mechanisms require technology infrastructures which don't match with the current legacy architecture possessed by some of the largest global banks in the world. But with all payment headwinds moving towards faster payments, banks are moving towards either modernizing or overhauling their traditional architectures. Moreover, from a cost- or a load-handling perspective, banks find it more difficult to implement these modern payment mechanisms on legacy interfaces.
2. **Liquidity management.** The volume of transactions in real-time payments volumes is unpredictable and large. With faster payment services being operational round the clock, it becomes imperative for banks to manage their liquidity more effectively. In a normal business scenario, the treasury can generally estimate the probable cashflows for the bank and supply funding based on that projection. An example of streamlined liquidity management is the introduction of the Central Liquidity Management module as part of the new Target2 architecture in Europe for high-value euro payments.

3. Regulation playing a key role. As seen with the global implementation of multiple faster payments schemes, regulations have played a major role in shaping real-time payments infrastructure, participation rules, service-level agreements (SLAs) and penalties for non-adherence. A classic example of this can be seen with the implementation of UPI in India, where the National Payments Corporation of India (NPCI) played an active role in SLA management. In the UK, the FPS operator continually monitors performance across banks to minimize failed transactions. However, a high restriction compliance environment with multiple regulators can deter innovation, with market participants finding it difficult to interpret and implement complicated regulations from multiple regulatory authorities. This problem gets more magnified in the case of crossborder scenarios. The regulators need to ensure balance between a healthy participation model and compliance.

4. Real-time fund settlement. Globally, majority of the payments schemes are currently using a net deferred settlement (NDS) mechanism. In an NDS mechanism, transactions are settled multilaterally at specific time intervals based on the total debit/credit balance against a particular counterparty. The key drawback of using an NDS mechanism is that as settlement cycles are fixed during the day by the clearing authority, this can result in liquidity shortfalls for banks.

Real-time settlement on the other hand involves an offsetting mechanism wherein payments are queued and immediately settled as and when they are received. These payments are irrevocable and settled in central bank money and can help banks to monitor their liquidity better and fulfill their central banking obligations.

This however requires added efforts from all participants and the payment rail operator for proactive SLA management to ensure that the settlement risk is largely negated [7].

Some of the key considerations for successful implementation of faster payments systems are:

1. Open banking combined with real-time payments.

A combination of real-time payments and open banking will help in creating effective overlay services that will benefit from onboarding participants to payments and finally settlements.

2. Bank-wide modernization programmes of legacy payments platforms.

With real-time payments, defragmented current legacy platforms will not be enough to handle volumes, performance and SLA pressures accompanying real-time payment mechanisms. Banks need to focus their efforts on modernizing current payment platforms and reducing the sheer number of platforms they currently operate from, resulting in cost reduction, reusing shared resources, etc.

3. Real-time payments and security.

- Infrastructure and data-level security need to be considered.

- Harmonizing data laws with open banking regulations will act as an enabler for secure real-time payments.
- Clearly documented standardized APIs including metrics and key performance indicators (KPIs) must be in place. This ensures maintenance of optimum balance between security and performance.

Regions with limited regulation on open API or faster payments are considering a sandbox approach to pull in technology service/ financial solution providers to jointly develop and test innovative payment solutions.

4. Expanding the use case to payment adjacency will help bolster the business case for faster payments.

Building faster payments infrastructure involves significant investment from the industry bodies as well as participants. In order to build a compelling business case, it is imperative to look at other overlay/adjacency services that can be built on top of the faster payments rail. Banks across the world have built services like bill payments, lending, equated monthly installment (EMI) collections, credit scoring models and developing customer insights into areas like propensity to buy adjacent items like insurance. The exact overlay service that will be successful for a bank is a combination of multiple factors like the operating country, regulations, customer demand and other existing gaps in the market that need to be evaluated carefully[7].

We can conclude that, the national system of instant payments will be formed in the near future, with the inevitable reformatting of existing mechanisms conducting transfers and reducing interbank barriers. Along with continued growth in digital technology penetration and availability such a system will become the basic platform for the emergence and implementation of mobile services innovative banking products and online services. The implementation of the fast payment system opens up new opportunities for the development of a variety of customer-oriented services that can improve the quality of services provided-services by optimizing processes through the use of innovative information technology, additional services and products, high speed of mutual settlements between all market participants. Thus, the developed principles and mechanisms for the implementation of instantaneous the funds will be able to meet the current and future needs of the national economy and society in payment services.

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