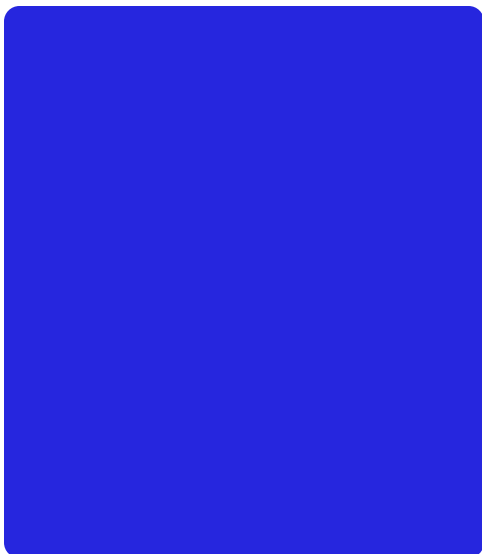
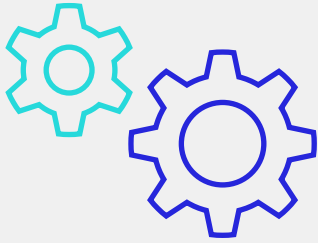




Banking on a Real-Time Balance System

Leveraging ACI® Enterprise
Payments Platform™
for a real-time balance
system solution





1 Overcoming the Challenges of Legacy Payment Systems

With advancements in delivery technology, new payment channels were added by banks to compete for the consumer's banking relationship. These new channels included ATMs, online banking, eCommerce, point of sale, ACH, wire transfer and telebanking. Each has its own front-end, channel-specific solution and is connected to the core banking system for final authorization against the customer's available balance. In response to this advancement, some banks developed an intraday balance system.

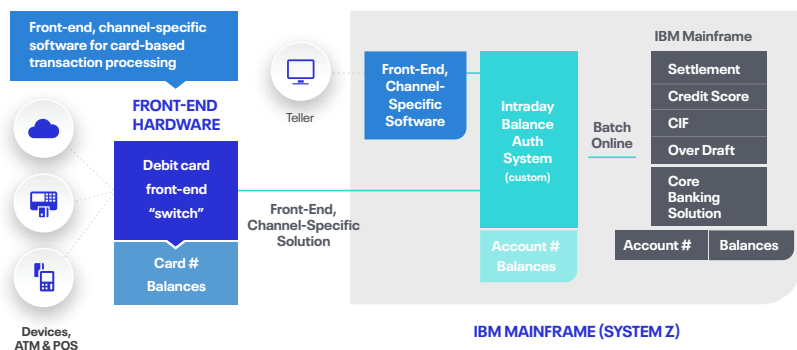
Today, at most banks worldwide this same architecture developed over a 50-year span still exists. The in-house written software behind both core and intraday balance systems are, in most cases, ultra-legacy, with many written in the original "assembler" language of the late 1960s blended with other languages, such as COBOL, as they were enhanced for new channels.

These core banking and intraday balance systems need to be modernized for immediate P2P, P2B, B2P and B2B payments through both in-country gateways (e.g., U.S.: Clearing House and Zelle), as well as providing a solution for "Open API banking" (e.g., PSD2 in Europe). Each of these new channels will be integrated through messaging interfaces into the core and intraday balance system to get an authorization against a single "available balance" for all channels.

Modernization Needs Real-Time, Something Legacy Systems Cannot Provide

- Most systems operate on centralized IBM mainframe technology, one of the most expensive platforms to process transactions in a continuously available environment.
- All new products and integration points require coding events in multiple legacy environments.
- Personnel resourcing is difficult and expensive.
- Interoperability with other systems within the bank requires significant investments of time and resourcing.
- Maintenance of legacy environments and underlying architectures for integration and interoperability eats up much of the IT budget.

Typical Bank Payments Ecosystem



2 Examining Change Drivers

For Business Owners

Business owners need to create additional revenue through new products and services sold to grow market share. These business owners need to rapidly deploy new capabilities in the market to effectively combat the increasing competitive pressures posed by competitors and new entrants in the payments market.

For Technology Owners

The drivers for technology owners are many and complicated, with the primary drivers being to evolve IT infrastructure, reduce IT spend, develop interoperability, and manage risk and convergence. Tech owners must also evolve platforms in a way that leverages legacy systems, creating a stepping stone which better supports the new modern payment services today's business demands — all without sacrificing availability and performance.

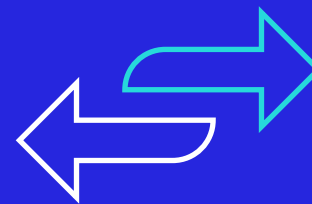
3 How Banks Can Take the First Step to Modernization

ACI's Active, Real-Time Balance Solution/Configuration

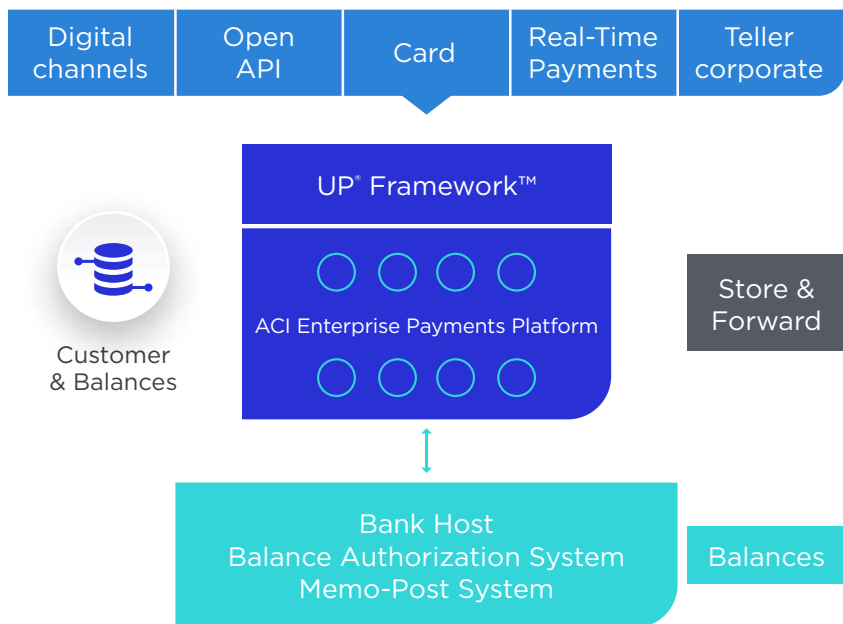
The "real-time balance solution" does not replace the core or intraday balance system. Instead, it leverages the "API layer" of ACI's payment engines to service more than just the card-based transaction space. All banking transactions needing 24x7x365 availability of a payments authorization system with customer balance capabilities are routed to the ACI Enterprise Payments Platform. The ACI Enterprise Payments Platform then normalizes all the transactions to one messaging format, converts all customer form factors to an account number structure for authorization purposes and sends them to the intraday balance system.

The ACI Enterprise Payments Platform sits between the transaction acquiring systems (channel-specific solutions) and the bank's core or intraday balance system. If they become unavailable or respond too slowly to a payments request, the ACI Enterprise Payments Platform will stand in and authorize the transaction based upon the balance it has on file, in real time. The bank's customer gets the highest levels of service and is completely unaware that the core infrastructure of the bank is unavailable.

ACI ENTERPRISE PAYMENTS PLATFORM ACTS AS THE "ALWAYS-ON, REAL-TIME BALANCE" FAIL-SAFE SYSTEM FOR PAYMENT TRANSACTION PROCESSING.



Real-Time Balance Configuration



4 The India Revolution

India is one of the most obvious examples of how these digital overlay services can create an explosion in cashless payments, as well as drive the adoption of instant payments specifically. The launch of the Unified Payments Interface (UPI) was designed to enable simple real-time payments for consumers and merchants. UPI has focused on the consumer purchases use case and solving challenges in the customer experience.

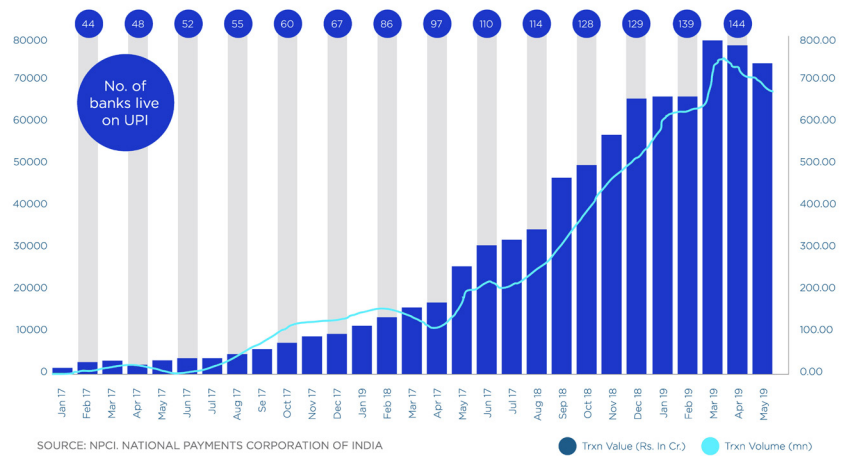
And the proof is in the pudding. Banks offering UPI services in India report that these transaction volumes are growing faster than cards, with some research predicting non-card payments such as UPI, mobile wallets and Rupay cards — a domestic card payment gateway launched three years ago — to quickly account for two-thirds of the digital payments market by 2027.¹

UPI enables service providers, such as Paytm, to leverage UPI capabilities through banking partners. Taking this approach, Paytm has reported a seven-fold growth in the number of transactions over the last six months. Perhaps most interestingly, Paytm also reports that 50% of bill payments in India are now being made using their service.

As can be seen in the chart below, UPI has seen phenomenal growth as consumers and businesses alike latch onto the benefits of instant and open payments. UPI started with support for only P2P transactions, but put in place key capabilities like “Collect” (an RfP concept as part of the UPI 2.0 launch in September 2018). These new capabilities successfully target the needs of the merchant community.



Tracking digital payments *NPCI* growth

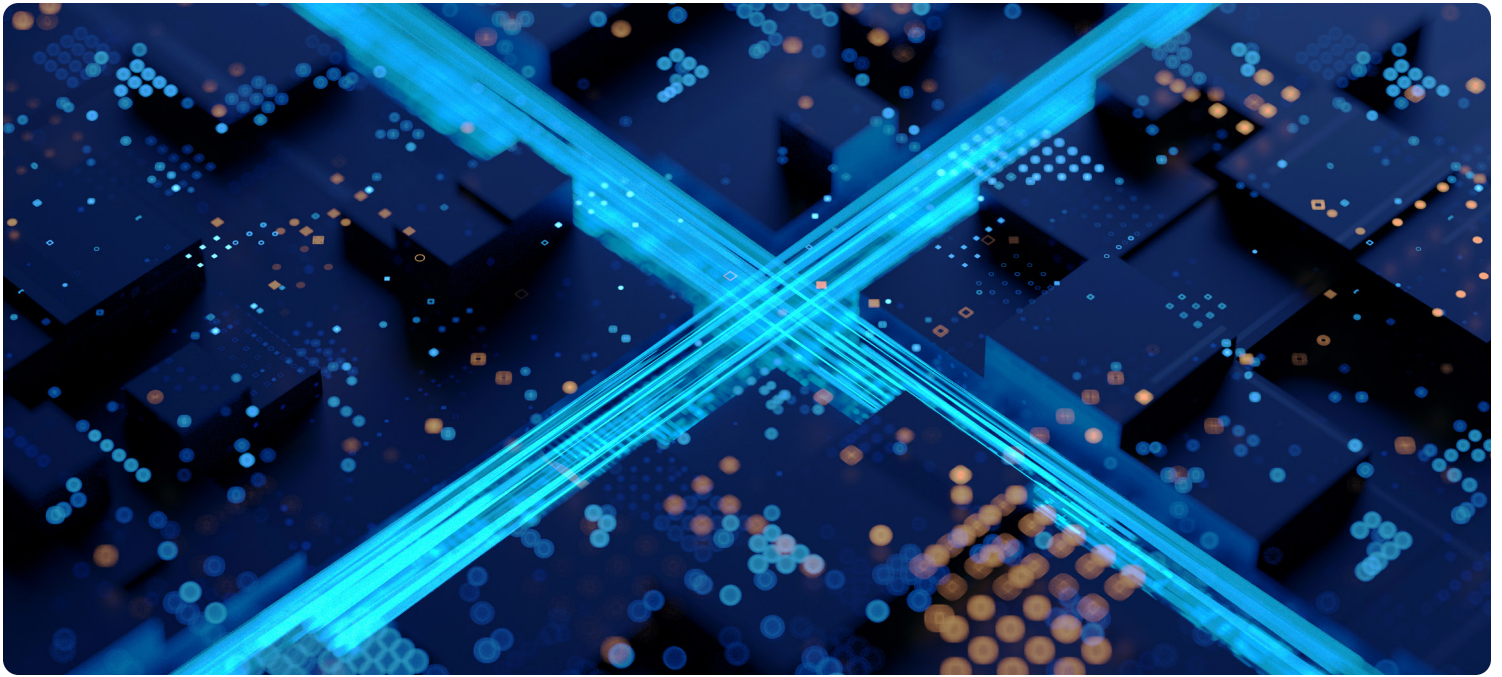


Reports on merchant UPI transactions vary between 100 to 120 million per month, while other experts in the industry are seeing this rise even faster. With the likes of WhatsApp, Google Pay, PhonePe (owned by Walmart) and now the mighty Amazon all offering instant and open payments between consumers and merchants, we are going to see continued growth in these types of transactions. India as a society seems well-positioned to capitalize on real-time payments transactions, thanks in part to the positive consumer attitudes toward new payment methods: 88%² of people are willing to adopt new digital payments.

5 ACI's Overall Payments System Strategic Value

There is a need in today's market to have a consistent, proven payments solution that can address the customer identification, authentication and authorization of any payments transaction from any endpoint. Enabling this using a flexible architecture on commodity hardware, database and O/S for all payment engine functions is key to modernizing payments infrastructure. The ACI Enterprise Payments Platform delivers choice in how banks provide what customers expect: an always on, accurate, real-time balance.

[Learn more](#) about how the ACI Enterprise Payments Platform can help you to ensure a return on investment from open and real-time banking.



ACI Worldwide is a global software company that provides mission-critical real-time payment solutions to corporations. Customers use our proven, scalable and secure solutions to process and manage digital payments, enable omni-commerce payments, present and process bill payments, and manage fraud and risk. We combine our global footprint with local presence to drive the realtime digital transformation of payments and commerce.

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