The Rise of Real-Time Payments and Why CIOs Should Take Action

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Initiatives: Financial Services Technology Modernization and Transformation

Real-time payment networks now span the globe as a critical way to move money. Financial services CIOs defining their strategy for real-time payments must provide the products and services demanded by the market or risk losing revenue to alternative providers.

Overview

Impacts

- Legacy bank infrastructure is fragmented and does not operate fully in a real-time manner. This hinders retail and commercial banks’ ability to exploit real-time payments in order to innovate the delivery of payment products and services to the market.

- The business case for investing in enabling and innovating real-time payments is not always positive when narrowly focused on the technology aspect. It must always be considered in the context of the broader operational and risk impacts, as well as business and strategic objectives.

- Banks face a threat to traditional payment methods, as alternative networks are being created by nonincumbent players — such as mobile money providers — that are easier for consumers to access and more convenient to use.

- The real-time payments landscape is dynamic both within and across regions, requiring financial institutions to make continuous enhancements to business and IT strategy in order to remain relevant and competitive.

Recommendations

CIOs responsible for financial services technology modernization and transformation as they assess the impact of real-time payments should:

- Define their technology renewal strategy to align with their organizations’ strategic focus for payments by aligning with business line leaders and the products and services they seek to provide.
Introduction

CIOs must think strategically about the technology and opportunities for driving new revenue through new payment methods, rather than simply focusing on the continued execution of existing payment types, but with more modern technology. This is coupled with the introduction of open banking, alongside new payments systems in many countries.

Real-time payments saw significant global growth between 2019 and 2020, with total volumes increasing 41%. Not only are fintechs offering alternative methods of moving money, but governments are driving implementation and renewal of national central financial market infrastructure for real-time payments. This infrastructure is designed to make real-time payments ubiquitous and an integral part of the banking system that provides access to all participants. This is often an alternative to more closed and proprietary systems that have a more commercial model for use.

**Real-time payment infrastructure is a national-level payment rail designed to facilitate the real-time movement of money. Typically, this is a government-backed initiative to improve a financial system's capabilities and remove its inefficiencies.**

Real-time payments infrastructure continues to be deployed around the globe, with 61 countries live in operation and a further seven in the process of developing their networks. While many of the older networks were originally deployed to improve a nation's ability to move money in real time, increasingly governments cite innovation and greater access to payment networks as primary drivers of their continued investment in evolving network capabilities. Live networks are seeing technology refreshes and newer capabilities being added, which continue to improve the services.

CIOs must remain focused on the changes underway in real-time payments infrastructure in the geographies in which they operate. Engaging with regulators to understand their intention for payments and helping policy direction where appropriate enables them to have input into the strategic planning for payments evolution within their financial institution.

- Remove the possibility of delays in technology renewal programs by engaging with internal finance functions and business leaders early to address the operational impacts of moving money faster. Include an analysis of the operational needs for data and information.
- Foster payments innovation by aligning payment technology renewal with organizational fintech strategy and collaborating with business stakeholders to understand how payment-related services can meet changing customer expectations.
- Keep payment technology roadmaps current by monitoring leading markets, staying close to changes being planned by regulators, and fostering engagement with partners to drive new products and services and remain market competitive.
Consumers continue to change their use of technology in the way they move and manage their money. This presents the opportunity for banks, as well as fintechs, to create new products and services around payments such as QR-based payments of “buy now pay later” (BNPL) offerings. CIOs should not be averse to working with fintech partners to create propositions but should approach such engagements strategically and collaboratively with business leaders in their organization.

CIOs must balance the need for updating payments technology to operate more efficiently with the introduction of low-value, high-volume instant payments against the need to innovate and create new revenue opportunities enabled by new payment methods (see Figure 1).

**Figure 1: Actions for CIOs Aligned to Strategic Focus for Payment Technology Renewal**

**Impacts and Recommendations**

**Legacy Bank Infrastructure Continues to Hinder Banks**
Bank payments infrastructure has typically been created over time with the addition of new technology silos for each new payment type. These were designed when batch payment processes were the norm, so provide a difficult environment within which to address the needs of the modern bank. Twenty-two percent of retail banking respondents to the Gartner Financial Services Technology Survey indicate they have plans to invest in or adopt new mobile/digital payments technology, with 56% indicating a plan to replace or upgrade existing technology. From the same survey, 59% of corporate banking respondents have plans to upgrade or replace payments infrastructure, and a further 21% of respondents have plans to adopt or invest in new payments infrastructure.

CIOs must examine their payments infrastructure and take a critical view as to whether it is appropriate to continue evolving by modifying or adding to platforms that were not originally designed to process real-time payments. Consideration of the skills required to manage and maintain solutions created on older technology platforms cannot be ignored as these resources become increasingly scarce and thus more expensive.

Gartner believes that there are three key decisions that CIOs need to make regarding their payments infrastructure in the face of real-time payments (see Figure 2).

**Figure 2: Key Decisions for CIOs Evaluating Real-Time Payments**

<table>
<thead>
<tr>
<th>Key Decision</th>
<th>Considerations</th>
</tr>
</thead>
<tbody>
<tr>
<td>When to stop development on existing infrastructure?</td>
<td>A long-term payments strategy will influence different technology choices that simply addressing the needs of the present technology will not. Making a short-term technology decision might actually hamper future strategy.</td>
</tr>
<tr>
<td>Do you want to own the payments infrastructure?</td>
<td>Payments platforms delivered in the cloud as a service are now an option that CIOs did not previously have. Don’t assume you have to buy the technology for your data center or own it in a hosted environment.</td>
</tr>
<tr>
<td>Does the bank want to build a payments ecosystem to drive business value?</td>
<td>If the payments strategy for the bank is to evolve a payments ecosystem, then the demands of technology will be different and drive the renewal sooner.</td>
</tr>
</tbody>
</table>

CIOs should anticipate new payment types and methods that they must consider in their buying decisions. Composable architectures with low-code development tools will provide the technical foundation to enable new business propositions to be implemented rapidly and support payment innovation.
Payments as a service is a cloud-based, end-to-end managed payments service that provides payment processing, clearing and settlement to payment schemes. It offers CIOs a very different alternative to the software purchase model that has been the typical approach used by banks. Whether the technology was delivered in a bank’s own data center or through a hosting agreement, primary control of the solution remained with the bank. As-a-service offerings shift this control dynamic, but do offer a much more flexible mechanism to deliver payments capability.

Payments continue to evolve, and legacy technology platforms in many banks cannot keep up with the pace of change; they will increasingly hinder new payments strategies. The journey to a new payments infrastructure will undoubtedly take time, but having a clearly defined strategic destination will ensure the journey starts out in the right direction.

Recommendations:

- Critically evaluate existing infrastructure by prioritizing which payment methods should be modernized first when considering the potential risk to the business of a system failure or the inability to meet a new market need.
- Do not discount cloud-based payment technology platforms as they provide an alternative cost model and are highly flexible. Include as-a-service propositions in any evaluation.
- Define a strategy for modernizing payment technology, but don’t assume all payment types must be done together. Map it out as a journey with a well-defined destination.

Real-Time Payments Threaten Traditional Payment Methods

Older payment types within banking systems often have lead times for initiating, changing or canceling payments, which limits a customer’s ability to react or even change funding source, but real-time payments remove these limitations. Commercial customers can greatly benefit from improved cash flows too, as accounts payable and receivable can be settled more quickly, thus reducing need for cash in the business.

The impact of the COVID-19 pandemic on payment trends was quite dramatic, with digital payments being used increasingly to move money, whether person to person (P2P) or for payment of goods and services (P2B). As consumers have become familiar with these modern alternatives, it is unlikely that they will continue to use older payment types that have less flexibility. Seventy-seven percent of banking CIOs responding to the 2021 Gartner CIO Survey indicate that they have seen an increase in demand for digital products and services during the pandemic, with 86% expecting this to increase in 2021.

Card-based payments for so long have been the staple for the purchase of goods and service, but alternatives such as wallet-based mechanisms are viable alternatives that provide consumers with convenience and simplicity. PhonePe is the leading UPI payments provider in India in terms of both volume and amount, with the national volumes growing 73% year on year in transfers in 2020 over the prior year. This demonstrates how simplicity and ease of use attract consumers. Tying in merchants in
order to enable the digital wallet to be used for purchases offers consumers a convenient way to pay from a bank account that eschews traditional payment methods.

The role of open banking initiatives has to be considered too, as nonbanking providers are able to initiate payments that are frequently combined as part of an offering that addresses a customer need. Banks, of course, have the same opportunity to create alternative payment approaches. PayIt by NatWest provides merchants a mechanism for paying invoices and getting paid by customers through the combination of open banking and real-time payments.

International payments have not been ignored either, with the potential to be executed by joining national real-time payment networks that offer customers the opportunity for international real-time payments. While not only providing speed of funds delivery, it also offers the opportunity to reduce the cost of making such payments. This is a goal of the World Bank as part of its program to drive broader access to financial services.

Singapore and Thailand are working to join their respective real-time payment networks to facilitate cross-border real-time payments, while SEPA already provides such a facility for European countries. Wire payments and Swift payments now have legitimate alternative models.

Bank CIOs who fail to consider alternative methods risk seeing a continued decline in payment revenue as consumers shift to alternative payment methods that offer the convenience and simplicity that traditional methods do not. The role of innovation in payments must be regarded at a strategic level by a bank to ensure its impact is properly assessed. While not all banks will want to be a payment innovator and may simply embed services from a third party, those that do must look holistically across the business. The role of the CIO in supporting the business as a whole so that the technical options available are understood should not be discounted.

Recommendations:

- Take the initiative and plan for the technology implementation required to offer real-time payment services to customers if you’re not already doing so.
- Closely monitor the payment trends within your organization to anticipate any business loss due to customers shifting their payment habits. Waiting too long can mean the opportunity is lost to provide new services to customers.
- Engage with business line leaders to support the creation of new payment services to support customer needs. Understanding the broader gamut of open banking and real-time payments will be valuable to innovation.

Continued Evolution of Real-Time Payment Networks Will Further Disrupt Payments

More mature real-time payment networks across the globe are seeing technology being refreshed and are introducing better payment mechanisms in the process. Pay.UK, which manages the U.K. Faster
Payments Service is refreshing its technology infrastructure as part of its New Payments Architecture program. Specifically focusing on streamlining the clearing and settlement of payments using the network, it has a specific goal of fostering innovation in overlay services.

Overlay services (see Acronym Key and Glossary Terms section) provide improved customer experiences in a range of payment scenarios, including bill and invoice payments, at point of sale, social payments, in-app payments and QR-code-enabled payments. Payment changes may also provide a negative impact.

Real-time payments, being cleared funds upon receipt, gave fraudsters a new way to exploit vulnerable individuals as monies obtained deceptively could immediately be removed from a bank account. Overlay services enable banks to address risk issues by reducing the opportunity for fraudsters. Confirmation of Payee in the U.K. was introduced to specifically deal with authorised push payment (APP) frauds that exploit simple use of sort code and account number as a payment beneficiary. Banks must keep up with these changes in order to protect their customers, as well as their own reputations, while avoiding the financial impact through loss or fines.

Overlay services can normally be provided by anyone, and so we see disruption by fintechs and nonbanks that are able to come to market with a proposition that is of value to those making payments.

Combining payments into broader financial services offerings provides the opportunity to create solutions directed at solving consumers’ problems. Increasingly, the movement of money through payments is an adjunct to some other activity. The most obvious example is purchasing something, but services for small and medium enterprises offer great opportunities to create better experiences with embedded payments.

Payments are no longer simply about the technology enabling them; they must be understood in the context in which they are used by consumers and businesses in order to fully add value through their use.

Recommendations:

- Assess the technical developments that are planned within the real-time networks within which they operate to develop innovative propositions that exploit new features being enabled.
- Collaborate with business line leaders to clearly understand the problem that must be solved for bank customers through payment innovation and embedding of payments more fully into offerings.
- Do not discount fintechs and alternative payment providers; they offer opportunities to create innovative products and services when combining their capabilities with those of the bank in an ecosystem.

Payments Business Cases Require a Broader Assessment of Impact
Payments technology modernization within banks is, more than ever, being driven by the digitization of payments. CIOs should actively be engaged with the heads of payments and digital to ensure that a holistic view of the future of payments is being addressed.

While the real-time movement of money is desirable by customers who benefit from receiving immediate credit, it presents a number of challenges for banks. CIOs have a key role to play in supporting the creation of the business case. The technology impact will not only be on payment systems, but also on ancillary systems such as AML and fraud tools that must operate in a real-time model. While many banks will think of payments as a normal part of banking, there are now alternatives for customers to use, and banks must make a conscious decision to retain their payment franchise.

For some banks involved in money movement, the impact on the cash float in the business must not be ignored. Following the impact of the COVID-19 pandemic on banking, there is an increased focus on cash flow and time to value of new investments in technology, which will increase the scrutiny on these types of financial impacts. While many factors will influence the value of this for a particular institution, float is regarded as a cost of the inefficiency in the financial system, and examples show it is offset by a reduction in the costs of processing payments.  

Delays offer the potential for other banks or fintechs to step in and provide the payment services that your organization is not providing and engrain their services within your customer base. They also delay the revenue that new payment programs will generate. Venmo in the U.S. gained significant traction as a P2P payments solution before the banks created Zelle as an alternative. While Zelle has now surpassed Venmo in terms of volume, Venmo still maintains a significant share of the market with $159 billion of total payment volume in 2020. This is an opportunity lost to banks.

New payments technology does, however, offer the potential to deliver increased value to the business by delivering greater levels of information about payments. A centralized infrastructure enables real-time data flow to be provided about positions within the bank that need to be covered by treasury, as well as provide an improved data source for fraud and AML monitoring. This approach helps manage the financial risk of these payment flows and will, no doubt, increase the value of such investments to this group of stakeholders.

While CIOs will be able to provide the costs associated with the processing of payments, they must take the lead to engage the other stakeholders to provide input to the overall business case. Providing payments volumes currently processed and future projections created by collaboration with the business line leaders will provide valuable data to support this process.

Recommendations:

- As you implement real-time infrastructure, engage early with the business function of the bank to ensure its needs are addressed, rather than finding they are a barrier to renewal and innovation.
Include the need for real-time information out of new payments infrastructure in your RFI/P documents to support the needs of both the financial and operational aspects of the bank. More advanced solutions are able to provide predictive views of cash flow needs, which will be invaluable to treasury.

### Acronym Key and Glossary Terms

| Overlay Services | Overlay services are value-added payment or payment-related services owned and operated by a provider that can be deployed on top of real-time payments infrastructure to deliver value to a specific group of subscribers and/or end-user consumers. Examples include: Addressing services that link a phone number to a bank account, QR code payments that enable a QR to identify a payment recipient, Payee validation to confirm the payee on an account, not just the bank number and account number, as a fraud prevention measure. |
| Authorized Push Payment Fraud | This is a form of fraud in which victims are deceived into making real-time payments to fraudsters, typically by social engineering attacks involving impersonation. This exploits weakness in the payments system where beneficiary names are not checked on the accounts receiving funds. |

### Evidence

1. **Global Payment Trends**, ACI Worldwide
2. Gartner research on national payment infrastructure projects
3. **Zelle Network Exceeds One Billion Payments in 12 Months, Setting a New Record for the Payments Network**, Zelle
4. **Statistics**, Faster Payments
5. **2021 CIO Agenda: A Banking Perspective**
7. **Payit**, NatWest
8. **Migration and Remittances**, KNOMAD
9. **PayNow and Thailand's PromptPay to Link Up Next Year in Trailblazing Move**, The Business Times
10. **End-User Deliverables**, Pay.UK
11. **Confirmation of Payee**, Pay.UK
12 Top Banks Accused of Leaving Vulnerable Customers at Risk of Fraud After Failing to Implement Vital Safeguards, This Is Money

13 Costs and Benefits of Building Faster Payment Systems: The U.K. Experience and Implications for the United States — Federal Reserve Bank of Boston, Federal Reserve Bank of Boston

Recommended by the Author

Tech Providers 2025: Banking as a Service Will Drive Success Across Verticals
Payment Acceptance Will Never Be the Same After the COVID-19 Pandemic
Accelerate Financial Ecosystems to Keep Up With Digital Giants

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