Payments trends

July 2022
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Introduction

Have we reached the tipping point for digital payments adoption?

There has been, and will continue to be, a significant shift across the payments industry within both consumer and corporate sectors. While the COVID-19 pandemic accelerated movement toward digital payments, larger structural changes are driving innovation and customer acceptance. The growth of real-time payments, the increased access to and use of customer data, the expansion of consumer choice within digital and traditional payment methods, and the enhanced competition and collaboration between tech giants and traditional banks are key discussion topics both with customers and in boardrooms. These emerging and continuing shifts are forcing businesses to reconsider operating models to drive innovation and customer acceptance.
2022 is shaping up to be an important year in further driving these shifts in the payments industry, encouraging us to ask: Have we reached the tipping point for digital payments adoption and acceptance?

We see four emerging and/or maturing trends presenting challenges and creating opportunities in the US payments ecosystem, contributing to 2022 becoming the tipping point for the dominance of digital payments (figure 1).

**Figure 1. US Payments ecosystems trends**

1. **Consumer preference and necessity** is driving the demand for real-time payments and the shift to foundational digital payments usage
2. **Digital identity is integral** to bolstering infrastructure and will continue to progress toward widespread acceptance and adoption
3. **Next-gen money-moving technologies and digital currencies** are spurring operating model changes that speed organizational transformation
4. **Innovation is outpacing new regulation**; clarity is required to protect consumers and businesses while continuing to allow innovation to prosper

These four trends are key drivers toward a “digital-first” reality that will be foundational to the future of payments (figure 2). Historically, organizations offered “digital as a channel” to extend capabilities but utilized largely the same, traditional payments models. Businesses and consumers were given limited avenues to send, receive, and manage money outside of the traditional models. Over time, a shift occurred toward “digital as a feature”—digital functionality becoming more synchronized and less siloed with more advanced changes to payments models—where new, alternative technology was rolled out and oftentimes built onto existing payments technology to support and improve payments. However, with the current digital evolution comes a new reality—“digital as a foundation.” Digital technology is no longer just a component of the payments landscape, it’s an expectation.

As the four trends highlight, digital technology has become fundamental to payments models. Details on each of the four trends exemplify the breadth and impact of this shift to alternative payments technology, with real-time payments, blockchain, and digital currencies at the forefront of digital-first customer expectations.

**Figure 2. Digital payments evolution**

- **Digital as a channel**
  - Organizations offered digital technology to extend capabilities, but still largely the same, traditional payments models

- **Digital as a feature**
  - Digital functionality becomes more synchronized and less siloed with more advanced changes to payments models

- **Digital as a foundation**
  - Digital technology is no longer just a part of payments but rather has become fundamental to payments models
Real-time payments (RTP) is poised to transform payments processing from a commoditized service into a strategic imperative. Global market size, valued at $13.5 billion in 2021, is expected to increase at a compound annual growth rate (CAGR) of 34.9% from 2022 to 2030.\(^1\) In the United States, RTP is seeing significant year-over-year growth of 69%.\(^2\) The rise in RTP can be attributed to strong demand for quicker payment settlements by merchants, global proliferation of smartphones driving increased person-to-person (P2P) activity, evolution of P2P products into business-to-consumer (B2C) transactions, and adoption of cloud-based solutions for faster payments, as well as more recent pandemic-related health and economic pressures.\(^3\)

We anticipate continued maturity of RTP in the United States over the next year, with both customer preference and economic necessity spurring deployment and uptake. While RTP historically focused on simple P2P solutions such as Venmo and Zelle, increased consumer adoption has accelerated RTP innovation and expanded the focus toward B2C and B2B use cases, including bill pay, payroll, and request-for-pay (figure 3). One prominent way in which RTP is already being utilized in the B2C payments ecosystem is by supporting instant payments for gig economy workers who previously had to wait for traditional 14-day payout periods.\(^4\) The COVID-19 pandemic has further emphasized the urgency of RTP adoption amid increased pressure and focus for providing instant electronic payments. In underbanked societies where many people do not have access to bank accounts and bank branches, the adoption of RTP carries even more potential to make a real change in the payments ecosystem.\(^5\)

While we anticipate consumer adoption of RTP to continue at a steady pace going forward, further shifts toward global adoption are dependent on innovation to transform the underlying technology and overlay services. Newer innovations, such as blockchain, will enable improvement of existing use cases and spur the expansion of others, including government/insurance disbursements, supply chain, and cross-border transactions.

The continued rise of RTP has also changed customer expectations of various payment products across both the corporate and consumer sectors. These shifting expectations will be focused on four main areas in 2022: new features, convenience, adoption, and data innovation.

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Figure 3. Evolution of RTP use cases

<table>
<thead>
<tr>
<th>2015-16</th>
<th>2017-18</th>
<th>2019-20</th>
<th>2021-22 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>TCH announces partnership with Vocalink</td>
<td>TCH launches RTP(^\text{®}) network</td>
<td>Federal Reserve announces FedNow\™ service</td>
<td>✓ Exponentially higher adoption and ubiquity of instant payments</td>
</tr>
<tr>
<td>Visa launches VisaDirect and Nacha rolls out Same Day ACH</td>
<td>Zelle launches faster payments service</td>
<td>EWS (Zelle(^\text{®})) and TCH (RTP(^\text{®})) start combining forces for faster settlement</td>
<td>✓ Addition of instant payment options and solutions in the marketplace</td>
</tr>
<tr>
<td>Mastercard acquires Vocalink</td>
<td>SWIFT launches SWIFT GPI for cross-border payments</td>
<td>TCH (RTP(^\text{®})) pilots bill pay capabilities</td>
<td>✓ Expansion of use cases, including instant cross-border transactions</td>
</tr>
<tr>
<td>Fed forms Faster Payments Task Force and solicits proposals for instant payments</td>
<td>PayPal announces plans for instant transfers on Venmo</td>
<td>TCH integrates with Zelle(^\text{®}) and PayFi to facilitate increased RTP(^\text{®}) adoption</td>
<td>✓ Architecture evolution and coexistence with open banking and smart contracts</td>
</tr>
<tr>
<td>US Faster Payments Council formed</td>
<td>WeChat and Alipay expand to US market</td>
<td>PayPal-owned Venmo launches Instant Transfers</td>
<td>The Clearing House has enabled further use cases, including B2B and cross-border</td>
</tr>
<tr>
<td></td>
<td>Zelle transactions can be settled over RTP(^\text{®}) for P2P payments</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Bank of America and PNC Bank are the first to send Zelle payments over RTP(^\text{®})</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Federal Reserve announces FedNow\™ Pilot Program Participants</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RTP(^\text{®}) network reaches ~70% DDA accounts in the US</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
In terms of new features, there has been an explosion of B2B demand for buy now, pay later (BNPL) products. These new features also offer a potential replacement for traditional supply-chain financing and outdated payment term schemes to enforce "float." As a result, we anticipate seeing a shift from traditional credit products to bespoke BNPL personalized offerings. Additionally, payments transactions will have to meet customers’ increased expectations around convenience. Most prominently, we anticipate increased speed of payment transfer using crypto/blockchain rails. Central bank digital currencies (CBDCs) will allow businesses to accept burgeoning eMoney payments with increased confidence. Reinforced by the COVID-19 pandemic, we anticipate continued overall decline in cash (down 7% in the United States from 2019 to 2020), further pushing customers to digital channels.

Furthermore, more widespread adoption will likely continue as discussions around cryptocurrencies remain prevalent in mainstream public discourse. In our recent merchant survey, collaboration with PayPal, nearly 75% of merchants reported plans to accept stablecoin payments and almost the same amount reported plans to accept cryptocurrency payments, both within the next 24 months. With the continued increase in digital currency plans, we anticipate crypto issuers to increasingly attempt to appeal to mainstream audiences, doubling down on business and consumer education in order to further shift public opinion toward adoption. Lastly, in response to the increased demand for standardized data to be pulled via API and increased adoption of open banking, there likely will be customer expectations for continued data innovation driving toward the delivery of more comprehensive solutions. Looking beyond 2022, we anticipate this to result in increased financial inclusivity by offering simple setup options for merchants and customers, both within the United States and globally in underdeveloped economies.

Digitization is facilitating investments in and adoption of real-time payment solutions. Governments across the globe are promoting digital payments with an aim to increase the volume of digital transactions in their respective countries. In the United States, The Clearing House's RTP system has continued to expand and increase payments transactions will have to meet customers’ increased expectations around convenience. Most prominently, we anticipate increased speed of payment transfer using crypto/blockchain rails. Central bank digital currencies (CBDCs) will allow businesses to accept burgeoning eMoney payments with increased confidence. Reinforced by the COVID-19 pandemic, we anticipate continued overall decline in cash (down 7% in the United States from 2019 to 2020), further pushing customers to digital channels.

More broadly, the shift to a digital-first world has changed both consumer and corporate customers’ expectations of payments transacting. The challenge for 2022 and the coming years will be to understand evolving customer expectations and demand. Whether it is consumers expecting more convenience or alternatives (e.g., crypto/blockchain) to traditional payment rails, or corporations expecting replacements for traditional supply-chain financing or further API/data innovation, evolving customer needs will likely have downstream implications on payments organizations’ operating models.

Digital payments are gaining traction with mainstream consumers and businesses, marking an accelerated—and potentially permanent—shift away from traditional payment methods. The shift to digital payments surged during the pandemic, as previously cash-only businesses started accepting credit/debit cards and other alternative forms of payment, and shoppers did more of their shopping online. As figure 4 shows, consumers have more options than ever to transact, but with that choice comes fragmentation of services across multiple applications, solutions, and providers where often the only constant is the payment method used.

Additionally, we see an opportunity for card issuers, loan originators, and consumers to utilize newly available digital payments data to move away from traditional credit scores toward alternative sources of financial measurements. For example, US credit-reporting firm Experian offers a free program, Experian Boost, which allows consumers to add eligible, on-time payments (cellphone, utility, streaming services) to their credit report. Factoring in such payments is likely to boost the credit scores of millions of people and increase loan approvals.

Figure 4. Consumer payment options

<table>
<thead>
<tr>
<th>Time</th>
<th>Payment Option</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>7 AM</td>
<td>Pay by app</td>
<td>Consumer orders replacement toothpaste via online shopping app or through a smart speaker</td>
</tr>
<tr>
<td>11 AM</td>
<td>BNPL</td>
<td>Consumer breaks TV and orders new model online, using BNPL to fund the purchase</td>
</tr>
<tr>
<td>1 PM</td>
<td>Point-of-sale (POS)</td>
<td>Consumer pays for lunch at restaurant using retail POS solution</td>
</tr>
<tr>
<td>4 PM</td>
<td>Pay by app</td>
<td>Consumer orders and pays for transportation via rideshare app</td>
</tr>
<tr>
<td>6 PM</td>
<td>Bill pay split</td>
<td>Consumer pays their roommate for half of the month's utilities via a P2P app; roommate &quot;likes&quot; the transaction</td>
</tr>
</tbody>
</table>
Digital identity is integral to bolstering infrastructure and will continue to progress toward widespread acceptance and adoption

Digital identity is a potentially powerful tool to facilitate digital payments, but its broad implementation faces numerous challenges in the United States and globally. With digital transactions accelerating and extended into all areas of life—health, education, travel, commerce, and government—human-centric digital identity technology helps to reduce risks and build trust in the secure usage of personal data to authenticate transactions.\(^{12}\)

Digital identity is defined as “a collection of electronically captured and stored identity attributes that uniquely describe a person within a given context and are used for electronic transactions.”\(^{13}\) These attributes include biometric data (e.g., fingerprints, eye scans, 3D face maps) and life factors, including date and place of birth. They also can be combined with government-issued IDs (e.g., passports, drivers’ licenses), and digital behavioral attributes (e.g., social media activity, online search, and purchase history).\(^{14}\) User demands for seamless authentication and data privacy, as well as cybersecurity considerations, make digital identity a critical component in expanding online banking and retail transactions.\(^{15}\)

“Security is a global secular challenge, as is customer expectations and experiences. In a just-in-time world where you can point-and-click, [digital identity] is the new customer expectation . . . all these bottlenecks to prove that you are YOU makes no sense, doesn’t scale, and is not where the world is going. “

Caryn Seidman Becker,
Co-founder and CEO of CLEAR

Figure 5. Digital identity features increased options for data sharing
Compared to other trending technologies, the comfort level for digital identity is shifting more quickly as consumers become better acclimated to the features of the technology. While consumers were previously tentative to adopt technology solutions based on the sharing of personal data, steady adoption of digital identity features has driven an increased level of support and comfort in sharing that data. Historically, all forms of identification/user access devices (e.g., driver’s license, car keys) were physical. Consumers were hesitant to digitally store personal/payments information, access keys, or leverage biometrics (i.e., facial recognition) for identification purposes. As such, usage and adoption of digital identity services were limited. Today, customers are not only more open to sharing personal information, they have exponentially more opportunities to do so—such as with facial recognition for airline travel and entertainment venue entrance, digital wallets for a driver’s license or vehicle access, and one-click checkout options (figure 5). Additionally, consumers have the option to select different amounts and types of data they are willing to share—for example, choosing whether to mask their name or certain contact information—as opposed to earlier digital identity solutions where it was “all-or-nothing.”

Digital identity has become commonplace and will continue to expand its presence in consumers’ lives, both from a payments perspective and in other arenas. With 63% of US consumers having become more concerned about personal data privacy and security over the past few years (2017-2019), it is no surprise we are already seeing some organizations actively investing in the space via wireless technology, biometrics, and financial inclusion. There are three areas that could serve as a catalyst to widespread digital identity innovation and adoption:

- **5G-enabled authentication:** 5G technology represents a quick and secure transmission method for digital identity components, and continued adoption should increase consumers’ comfort in transmitting private data, leading to accelerated usage.
- **Biometrics usage adoption:** Biometrics, coupled with Digital ID, creates a dual authentication process to replace traditional authentication methods.
- **Financial inclusion acceleration:** Credit scores are not applicable to wide swaths of the population; using a digital ID to judge creditworthiness opens new, untapped markets for financial services providers to increase financial inclusion.

As organizations unlock the full potential of these functionalities and consumer adoption continues to rise, further opportunities for financial institutions and businesses to incorporate digital identity tools into their digital payments process will likely multiply. As such, we anticipate the following digital identity-driven activities in 2022 and beyond:

- **Omnichannel customer verification:** Creation of a proposed digital ID across online and offline channels will enable seamless, holistic, and robust customer verification, not just in one technology ecosystem—for example, mobile phone facial recognition—but across use cases.
- **Products and services improvement:** Increasing access to holistic information of existing and prospective customers will allow financial institutions and businesses to provide tailored services, including financial assistance.
- **New revenue streams:** New revenue streams, such as offering ID as a Service (IDaaS) to relaying parties (e.g., telecom providers) for customer verification and authentication, will arise from digital identity use.
- **Competitive positioning:** Businesses will improve their ability to establish and sustain trust-based relationships with relaying parties and customers to enhance their competitive position in the digital ID ecosystem.
Next-generation technologies to move money are accepted today more than ever. Payment processing leaders such as Visa, Mastercard, and American Express, which provide the network between the card-issuing bank and the merchant accepting that card as payment, are realizing bottom-line and stock valuation benefits, particularly as they continue to facilitate digital payments from technology giants including Apple, Google, and PayPal. Meanwhile, innovative financial technology firms (fintechs) and other market disruptors are building their businesses around owning customer relationships rather than incumbents’ model of moving money from point A to point B. The combination of these technologies with new CBDCs and other digital currencies may force banks and businesses to adapt their operating models to keep pace. As companies continue to move to digital, the payment experience has become increasingly standardized. Companies must look beyond transactional fees for added value leading to a shift in the payments ecosystem as companies take advantage of this change.

These “neo’ players leverage a different set of economics than the networks, financial institutions, and tech giants that comprise the payments industry today. Owning the customer relationship enables these businesses to offer enrollment in more products, increase account stickiness, generate new sources of revenue and, potentially, threaten established competition. While traditional players will continue to benefit from increased digital innovation and cooperation, innovative fintechs demonstrate that untapped sources of revenue still exist in this market and are making moves to gain competitive ground generated by the consumer shift to digital.

In addition to owning the customer relationship, digitizing a portion of our currency may open new sources of revenue for organizations but may require companies to completely redefine the way their payments business functions. We anticipate CBDC-focused research, proofs of concept, and/or pilots to continue this year. As has been the case with other payments technologies, CBDC advances may move slowly; however, major players, including financial institutions, networks, and fintechs, will focus on CBDC due to its potential to alter and enable the way they operate. We also see stablecoins progressing into more mainstream discussions as a method of moving money around, especially inside a bank—facilitating account transfers, stock trades—where large amounts of money require quick movement. However, there is potential risk around being an early player in stablecoins, given uncertainty about how to regulate this emerging technology from tax, security, and liability perspectives.

Multiple fintechs, as well as the crypto-enthusiast community, tout blockchain as an enabling—and more elegant—solution compared to ACH, paper-based processes, and other B2B payment methods, especially for cross-border payments. Blockchain can build trust, user empowerment, and transparency and help reduce transaction settlement time and costs. Still, payments executives stress that regulatory standards require development and strong enforcement in order for payments to be transformed.

As next-gen digital currencies and money-moving technologies proliferate and disrupt established payments systems and processes, banks will likely look to establish intermediary data-sharing consortia and other partnerships (with banks serving as a central hub) to share consumer data that may assist with predictive analytics to better customize the services and technology they offer customers. The future will be focused on not only data collection and data usage, but also where data is coming from. Operating models will need to evolve to enable financial institutions to leverage digital technologies and data analytics across silos. Organizations already are trying to solve for the shift in operating models through: (1) new organizational roles and teams focused on enterprise payments and addressing the changing payments landscape; (2) convergence of products and technology into more robust, single solutions to better serve customers and streamline middle- and back-office functions; and (3) investment in emerging technologies such as artificial intelligence (AI), machine learning (ML), and cloud solutions to enhance operational capabilities and performance. These changes are necessary for banks not only to continue to operate efficiently, but also to remain competitive with the emergence of new institutions and mechanisms.
A key driver of digital payments growth is expanded adoption and use of digital currencies, such as stablecoins, tokens, CBDCs, and other trustworthy cryptocurrencies. As discussions about cryptocurrencies become more and more prominent in mainstream discourse, consumer adoption of crypto will continue to rise. In fact, Gen Z employees are already more willing to have a portion of their salary paid in crypto rather than fiat currencies. We will likely see crypto issuers become mainstream financial powerhouses and double down on consumer education to continue to shift public opinion toward adoption. Furthermore, as digital currency becomes mainstream in business operations, nonfinancial organizations will also need to take steps to solve for digital currencies’ impact on their business—such as dedicated lines of business for purchasing and managing digital currencies for employee payroll, accounts receivable/accounts payable (AR/AP), and other functions.

As the United States continues to develop the digital currency foundation, we anticipate seeing the government and private sector collaborate to determine which digital currency options provide the greatest efficacy; banks conduct digital transactions more frequently to test and solidify the supporting rails and build the technology architecture to support multi-asset chains; increased private-sector partnerships and pilots; and the rise of tokenized deposits in the use of the US dollar and other networks (e.g., BLINC network, JPM coin).
Innovation is outpacing new regulation; clarity is required to protect consumers and businesses while continuing to allow innovation to prosper

While financial institutions, businesses, and customers continue to innovate, regulators are challenged to keep pace with the market and provide the clarity required for sustainable growth. Needs include a definition of standards and clarity on everything from accessibility to interoperability and value-added services.

In the near future, US regulators will likely take a more active role in clarifying the emerging digital infrastructure in three key areas: (1) regulated financial instruments (e.g., deposits, futures, securities); (2) regulated entities (e.g., banks, broker-dealers, money transmission entities); and (3) customer-focused regulation (e.g., disclosures, consumer protections, financial inclusion). Flexibility is essential as the rules unfold, and firms will need to respond quickly. For example, crypto banks managing digital assets will need to secure the licenses for such payments and to gain Federal Reserve Board (FRB) approval. (In 2021, the FRB released a consistent set of standards to use when reviewing requests to access the US banking system.)

As cryptocurrencies continue to explode in popularity and the FRB studies CBDC options, state regulators are also taking a closer look at the industry. We anticipate that more states will require a crypto-equivalent license as they evolve their regulatory frameworks.

More broadly, top-of-mind questions for US regulators include whether certain crypto asset-related activities should be limited to banks with FDIC insurance or entities that are subject to comprehensive and consolidated federal bank regulatory supervision.

Digital payments also present regulatory challenges on a global scale, especially when they involve cross-border transactions. Major US payments players and banks aspire to serve customers outside of the United States; however, it can be difficult to navigate disparate regulatory regimes that rarely act in concert as countries individually and collectively struggle with regulating the rapidly evolving payments landscape. We anticipate there will be increased public/private cooperation in rolling out and protecting existing and new products and services. This should help craft appropriate guardrails in the form of guidance and research that tie back to existing risk and regulatory requirements.
Considerations and potential next steps

What implications could these four trends, individually and collectively, have for payments ecosystem players in 2022 and subsequent years? What new stakeholder strategies and actions might be taken in response to emerging opportunities and challenges?

As leaders consider their options, we see the following points as important for organizations to survive and thrive as we potentially reach the tipping point in how payments are made where our new reality is “digital as a foundation”:

• As technology continues to drive digital payments usage, companies will need to be more proactive and predictive in the payments services they offer to meet evolving customer demands. Owning payments will serve as a proxy for an organization to own the customer experience.

• The push for digital identity solutions will require organizations to 1) address their underlying data collection methods to understand how the data they are collecting can be used to better provide Digital ID functionality for their customers; and 2) address customer concerns with what data is being collected, how the data is being used, and how the data is being protected.

• Organizations need to better assess their operating model and how they will support a new digital infrastructure, including identification of capabilities they will provide versus partnering, and associated investments in talent and technology.

• Increased cooperation between regulators and payments business pioneers will speed up the continued digitization of payments and likely drive increased innovation. Enterprise clients are already engaging in the digitization process; however, proper systems around both data privacy and control will need to be in place for a proper market shift to occur.
Endnotes

5. Ibid.
14. Ibid.
15. Ibid.
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19. Ibid.
20. Ibid.
23. Bhat and Rosenthal, "2022 banking regulatory outlook"
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