Security is the critical element to expanding digital-first payments.

Moving money in a digital world
The rising adoption of digital financial services — mobile banking, online purchasing, and peer-to-peer payments — means that these days, money most often passes not through human hands but from computer to computer. No cash, no plastic cards, no paper bills or checks or envelopes or stamps. Digital is no longer just another way to move money. Every organization that moves money must meet users via computers, smartphones, and other devices, and offer rapid, secure payment services.

The COVID-19 pandemic gave a boost to digital money movement, from online purchases to contactless payments and smartphone wallets, as consumers worldwide sought to shop without touching anything or going anywhere.

“The common denominator across almost all post-pandemic behavioral shifts is the growing importance of digital payments,” says Paul Fabara, executive vice president and chief risk officer at Visa, whose worldwide networks handled an estimated $13 trillion worth of transactions last year.

“Covid forced a market that was already growing to greatly accelerate,” says Fabara. As of 2021, 76% of adults globally have an account with a financial institution or mobile money provider, up from 68% in 2017 and 51% in 2011, according to the World Bank’s Global Findex Database. That number includes 71% of adults in developing countries. In high-income economies, nearly 95% of adults either made or received digital payments in 2021. In India, 80 million adults made their first digital payment during the pandemic; in China, 100 million.

Fraudsters famously go where the money is, and their online activities are expanding right along with the growth in digital transactions. Annual losses from cybercrime in the U.S. nearly doubled between 2019 and 2021, from $3.5 billion to $6.9 billion, according to the FBI’s Internet Crime Report for 2021. Fortifying cyberspace against theft and fraud has always been urgent, and the post-pandemic boom in transactions intensified matters.

Driving digital transactions
Business-to-business customers are beginning to insist on the same seamless real-time transactions they expect as consumers, says Aaron Press, research director, worldwide payment strategies at IDC, who tracks the development and adoption of real-time payments. “If you think about the way you shop online for personal things or pay your friends using a mobile-to-mobile app, those expectations are finding their way into the business environment,” he says.

Methodology
In March 2022, MIT Technology Review Insights surveyed executives about their current and future use of digital payment technologies. Of the 265 respondents, almost 80% were C-suite executives or directors. They represented a broad range of industries, from retail to transportation and logistics, and an equally broad range of regions: only one in five were from North America. Respondents’ companies ranged from less than $50 million to more than $5 billion in annual revenue.
End-to-end digital transactions are here to stay. An MIT Technology Review Insights survey of global business leaders found high interest in digital payment technologies across all types and sizes of businesses. Although 36% of respondents are just getting started with digital payments, 43% expect to expand their offerings over the next 18 months, and many are venturing into cross-border transactions (37%) and cryptocurrency (18%).

What’s driving businesses to all-digital payments? The largest share of survey replies, 70%, indicate businesses prioritize improving customer experience, by offering multiple payment options and saving customers time. Respondents want the benefits of operational improvements (48%) and reductions in processing costs (37%). Many want expanded options for securing payments (36%) and personalized offers to customers (35%).

“Digital payments are more efficient and dramatically reduce errors,” says Press. “You’re much less likely to fill out something the wrong way, because there are checks and balances within the system.”

The digital future of money
Businesses will see fundamental changes in their relationship to money as digital payments take over. They will gain real-time control, or close to it, over when transactions happen. “Float” — the period between when a payment is sent and when it clears — will all but disappear. While instantaneous money movement will limit opportunities to profit from the float period, precise timing and predictability have benefits, says Press: “If there are terms attached to your payment, you can make sure the payment goes precisely when it needs to, to take advantage of the best terms.”

By 2024, seven out of 10 respondents plan to use the analytics capabilities enabled by digital financial services to grow their customer base and improve engagement with existing customers. Offering customers new options is also high on the to-do list: for example, installment payments or “buy now, pay later” (43%) and access to banking services (21%).

Lingering obstacles to adoption
What’s holding some companies back from a full embrace of digital payments? Mostly inertia, says Press. “Sometimes recognizing the value of something new is hard, when what you’re doing is working just fine,” he says. “Companies need a compelling reason to change.”

Press says that compelling reason is the ease of tracking and analyzing where their money goes. “You will get much better data, and you can apply analytics against your accounts to understand your cash flows better, and to optimize payments,” he says.

Increased processing costs were cited as a concern by 42% of survey respondents. Fear of new expenses is common in small businesses especially, says Fabara. “There’s a belief that doing business digitally means they’re going to have to

“Sometimes recognizing the value of something new is hard, when what you’re doing is working just fine. Companies need a compelling reason to change.”

Aaron Press, research director, worldwide payment strategies, IDC
pay more,” he says. However, businesses that accept paper checks must pay for a service to verify them. “That cost alone can exceed what a business would pay for full end-to-end transactions.” Verification is built into digital transactions rather than being a separate step.

Survey respondents acknowledged that expanding use of digital payments presents challenges, including building a secure processing network (24%), battling downtime (42%), and handling international transactions (30%).

Integrating digital payments
Respondents are concerned about integrating digital payment technologies (49%). No one wants to rip out usable systems to accommodate a single new function, says Press. “You’re not going to renovate your kitchen to the studs just because you need a new stove.” In many cases, organizations can slip a “new stove” into existing systems via software-as-a-service offerings.

Some sectors have famously grown by layering new functionality onto legacy systems to avoid disrupting operations. Press says most digital payment vendors recognize the need to work with clients’ existing systems, though clients may need to hire or train IT staff in house to make the interfaces work smoothly.

Fabara says continuing to support legacy systems may be a false economy for many organizations, and digital payments may be the boost they need to upgrade. “When you write down the pros and cons, you quickly realize that the cost of supporting antiquated technology is more than getting brand new technology that allows you to be a lot more nimble in the marketplace,” he says. “And if you want to attract good talent, people want to work with the latest and greatest.”

‘It’s a war’
Then there’s the problem of cybercrime. During the past five years, Fabara estimates Visa has spent more than $9 billion to boost cybersecurity to reduce fraud and theft. Visa employs more than 1,000 cybersecurity specialists to monitor the network 24/7. The company invested $500 million in artificial intelligence and data infrastructure to analyze threats.

“It’s a war,” he says. “I have learned not to underestimate these crooks, because they have access to the same technology as many companies out there — in some
cases better. We’re one of the most protected networks out there, but we’re attacked thousands of times a week.” He estimates that Visa’s vulnerability testing alone prevented $31 million in fraud in 2021.

Smaller businesses that can’t muster these defenses can be sitting ducks for fraud, Fabara says. A study of almost 1,500 small business owners, conducted by the Identity Theft Resource Center, showed 58% had experienced at least one security breach or data breach. Of those, 44% had paid between $250,000 and $500,000 to cover the cost, and another 16% had paid between $500,000 and $1 million.

“Once they go through a fraud experience, we see that they convert quickly into safer and more secure ways of conducting commerce,” Fabara says.

More secure payments
Cybersecurity threats are survey respondents’ biggest challenge in expanding to digital payments (59%). Adopting more advanced security capabilities is a priority for many, including digital tokens and other forms of enhanced authorization (32%) and improving fraud detection through biometric authorization, artificial intelligence, and other advanced technologies (43%). About 42% say their security measures are important to their customers.

“When you shop online, when you make a payment, you want to feel confident that the company you are paying is going to protect your data,” says Press.

Visa saw its volume of security threats skyrocket during the pandemic, as new buyers and sellers flooded into e-commerce for the first time. “Phishing attacks went through the roof,” says Fabara.

“Cybercriminals have access to the same technology as many companies – in some cases better. We’re one of the most protected networks, but we’re attacked thousands of times a week.”

Paul Fabara, executive vice president and chief risk officer, Visa
“Lots of consumers weren’t prepared for a fully digital environment and fell victim to emails and texts that look like they are from a company they’ve done business with but were fraudsters,” he adds. Merchants were also caught unaware, especially those whose businesses were primarily brick-and-mortar before the pandemic and had to hastily acquire online capabilities to survive.

Thieves may not be after the business's money, but something potentially more valuable: its customers' data. “They steal information and use that information to steal money,” says Press. “A business becomes a custodian of data,” in a way that it wasn’t before it took up e-commerce.

With effective security, follow-on fraud of this type disappears, but Press says many businesses don’t take advantage of advanced encryption features and multifactor authentication: “Sometimes those hurt the user experience or are just more difficult.” He says outsourcing payment services is often the best answer, especially for businesses that don’t have in-house technical capabilities.

Ultimately, Fabara says, digital payments offer better control for all parties: “To remain competitive, digital payments are the one thing that you want to buy into as soon as possible.”

### Biggest benefits to expanding use of digital payments

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<thead>
<tr>
<th>Benefit</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Better customer experience/convenience</td>
<td>70%</td>
</tr>
<tr>
<td>Operational improvements</td>
<td>47%</td>
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<tr>
<td>Reduction in processing costs</td>
<td>37%</td>
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<tr>
<td>More ways of securing payments</td>
<td>36%</td>
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<tr>
<td>More ways to personalize offers and discounts to customers</td>
<td>35%</td>
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<tr>
<td>Growth opportunities through new experiences</td>
<td>33%</td>
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<tr>
<td>Expanding access to people who are unbanked</td>
<td>22%</td>
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<tr>
<td>Contactless service</td>
<td>17%</td>
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### Biggest challenges to expanding use of digital payments

<table>
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<tr>
<th>Challenge</th>
<th>Percentage</th>
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</thead>
<tbody>
<tr>
<td>Cybersecurity threats</td>
<td>59%</td>
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<tr>
<td>System integration</td>
<td>49%</td>
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<tr>
<td>Technical issues resulting in application downtime</td>
<td>41%</td>
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<tr>
<td>Increased costs</td>
<td>41%</td>
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<tr>
<td>Education and training on digital currency adoption</td>
<td>32%</td>
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<tr>
<td>Handling cross-border transactions</td>
<td>30%</td>
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<tr>
<td>Filling e-payment processor certification criteria</td>
<td>24%</td>
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<tr>
<td>The need to adopt standards for payments messaging</td>
<td>23%</td>
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Source: MIT Technology Review Insights poll, 2022
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From the sponsor

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