TRANSACTIONS

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The social network formerly known as Twitter may be in for a bigger challenge than it bargained for.

Guess Who Else Wants to Cap Card Acceptance Costs?

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the gimlet eye 20 YEARS AND COUNTING. THANK YOU

Welcome to a party. *Digital Transactions* is 20 years old, and with this issue we're celebrating that milestone with a package of stories tracing the development over the years of 10 key topics in digital payments. You'll find that piece on page 18.

But first, we wanted to pause and take stock of the payments industry and our place in it, if we may be permitted that small indulgence. Twenty years is a slight sliver of time in the scheme of things, after all. The United States is more than 250 years old, and European and Asian nations can count their histories across centuries and millennia. But for magazines, 20 years isn't a bad indicator of longevity. Many don't get much past the startup phase, or flame out within a few years.So it's with a sense of pride—tempered by a due recognition of our need to earn your readership each month—that we mark our 20th anniversary. We also thought it might be timely to review the purpose of this magazine, with a nod to why we started it 20 years ago.

Here's what we said in our first issue, which mailed in January 2004 and carried a January/February date (we were a bimonthly then): "[B]ankers, retailers, and independent sales organizations (ISOs) confront a market in ferment, one that's giving rise to trends requiring a new arsenal of competitive strategies... But opportunities abound for those who understand and come to grips with this revolution, not just to make money, but to re-make the way consumers spend money, indeed, the way they interact with business and government."

Somewhat immodestly, perhaps, we said our purpose was to "interpret these trends and spell out these strategies" for a comprehensive audience of merchants, bankers, and the processors and acquirers in between.

Through the years since we started, the technologies, strategies, tactics—and even the players—have undergone many changes, but our purpose in bringing you this magazine, along with *Digital Transactions News* every business day, remains unchanged. Indeed, there's little point in publishing a business magazine unless the publishers can adhere to a purpose like this year in and year out.

If anything, given the pace of change in tactics and technology, the need for *Digital Transactions* has only grown over the past 20 years. We hope this magazine has been of some service to you as you launch new products, enter new geographies, map new strategies, and seek to understand the strategies of your competitors.

In that first issue, I invited readers to contact me any time with questions, comments, or story ideas. I repeat that invitation here. I'm at john@digitaltransactions.net.

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trends & tactics

WHY FISERV IS SEEKING A BANK CHARTER

Giant payment processor Fiserv Inc. wants to take on another aspect of the business with its application for a special bank charter in Georgia.

The charter for a merchantacquirer limited purpose bank, if approved, would enable Brookfield, Wis.-based Fiserv to interact with card networks directly instead of operating through a financialinstitution sponsor, according to the Georgia Department of Banking and Finance definition of this type of institution.

Fiserv, in a statement, says the charter will enable it to authorize, clear, and settle credit and debit card transactions.

"Fiserv has no intention to become a traditional financial institution or regional bank. Fiserv also will continue to partner with financial institutions that want to remain active in the market as acquiring sponsors," the statement says.

"We are taking this step in response to recent market changes, as third-party financial institutions that



Note: 2023 organic growth through the third guarter was 17%. Source: Fiserv

have traditionally provided access to the card networks as sponsor banks increasingly focus on other areas of their business," the statement continues. It is uncertain which financial institutions may have withdrawn as sponsor banks.

As of mid-January, Fiserv was waiting for Georgia to review its application. Generally, a decision on such an application will be delivered within 90 days after the official acceptance of it, the Department says, though it could be extended if needed.

If approved, the charter would enable Fiserv to have more control over the payment process, says Jared Drieling, chief innovation officer at TSG, an Omaha, Neb.-based payments advisory firm. "...Acquirers are required to use bank partners (sponsor banks) as part of payment processing. This would allow Fiserv to provide processing without a sponsor bank. This would drive down costs for Fiserv," Drieling says in an email message.

Other experts suggest similar benefits. "If Fiserv gets the charter, they will have greater control over the process flow and they will be free to price their services independent

from third-party processors," says Thad Peterson, strategic advisor at Datos Insights, a Boston-based financial-services advisory firm. "That said, it's an added layer of complexity for Fiserv to manage efficiently, and that's a challenge for any large, horizontal organization."

Greater competitive pressures may be a factor for Fiserv, too, especially as banks themselves set up direct relationships with merchants and as tech entrants like Stripe and Adyen eat into processing market share, says Matthew Goldman, founder, chief executive, and managing member of Totavi LLC, a Pasadena, Calif.-based consulting firm.

"Payment acceptance is about technology, but also scale and pricing," Goldman says. "If Fiserv believes they can squeeze a few basis points of margin out of their proposals and undercut competitors by pursuing the charter, then I think it makes a lot of sense for them to pursue. Fiserv can win deals on pricing if this structure works. It absolutely has the potential to shift spend from higher-cost providers."

As for which current sponsor banks may have reduced their acquiring footprint, Drieling says there are some financial institutions that have left or are planning to leave the BIN-sponsor business. These institutions issue a bank identification number to enable payments providers to connect to card networks. Fiserv's statement noted this change, he says.

"However, this [move by Fiserv] may also be part of a larger strategy as it relates to offering (or having more control over) embedded-finance tools as it relates to retaining and attracting software partners who are seeking these types of services," Drieling says.

"On the flip side, Fiserv will be exposed to more regulatory challenges, burdens, and oversight" because of its banking move, Drieling continues. "The acquisition of Finxact a few years back may have been an early move on a larger embeddedfinance strategy. Finxact focuses on powering bank technology systems through APIs."

Embedded finance refers to cases when financial services, such as banking, insurance, or lending, are integrated into non-financial user experiences, as defined by Juniper Research.

-Kevin Woodward

X PLANS A P2P NETWORK. IS MUSK'S BRAVADO ENOUGH TO GET IT DONE?

Despite its formidable reach, the social-media platform X faces a steep climb to achieve its goal of launching a peer-to-peer payments service, according to payments experts.

X, formerly known as Twitter, announced in a blog post early last month its plans to add P2P payments to its platform this year as part of the company's ambition to turn its platform into the next super app.

The obstacles facing X in this venture are many. They include building scale and achieving a solid user base, along with challenges concerning brand recognition, trust, and interoperability issues, according to Ariana-Michele Moore, an advisor in retail banking and payments for Datos Insights.

"And of course, you must overcome the classic payment conundrum: which comes first, the payer or the acceptor. Zelle, despite its link to the largest U.S. banks, is still struggling to get consumer wallet share," Moore adds by email. Zelle is the peer-topeer payments network launched in 2017 by Early Warning Services LLC, a bank-controlled entity. Other challenges facing X include protecting against fraud and attracting users in the face of competition from other P2P services such as Pay-Pal and Cash App, besides Zelle. Add to this user errors and interoperability issues, according to Moore. "It's simply not easy," she says.

X Corp. announced its intention to become a player in payments in January last year when chief executive Elon Musk broached the topic publicly. At the time, the company announced it had begun working on a payments app and applying for licenses across the United States to support the service. X Payments LLC, the payments subsidiary of X Corp., has reportedly obtained money-transmission licenses in just 14 states.

Moore points to research from Datos indicating that PayPal, which has a well-established brand name, still accounts for only about 10% of P2P transactions. Zelle also struggles with adoption, Moore says. She attributes this to the fact that the service is typically buried within a bank's online portfolio or mobile-banking app, which in turn buries the brand behind the bank's brand and requires several steps to initiate payment.

The bottom line for X is that brand recognition is a not a guarantee it will succeed in P2P payments, Moore says. "Facebook tried to launch a P2P network via MetaPay that didn't really go anywhere despite Facebook's huge user base and brand," she says. In spite of the obstacles X faces, it boasts one major advantage: its reach. X reportedly has more than 500 million active users, which means it is more likely a consumer will have an X account than a Venmo account, says Kate Hampton, chief strategy officer at NMI, a Schaumburg, Ill.-based payments provider.

"X is a mature, scaled network," says Hampton. "It also has a product customers interact with several times a day, unlike a banking app that Zelle uses for an interface. Additionally, the growth of embedded payments suggests consumers are increasingly placing [a] higher value on simplicity of experience in their interaction with payments."

P2P payments are not necessarily new to X. More than a decade ago, a company called Twitpay Inc. began providing social-media payment services, primarily over Twitter Twitpay, however, was not owned by, or affiliated with, Twitter.

While Musk has a history of turning grandiose ideas into reality, there is no guarantee X's P2P gambit will come to fruition any time soon. Building a P2P network requires investment and a broad range of competencies, according to NMI's Hampton.

"This can mean things like deploying new technology, growing existing teams from engineering and product to sales and support, building new muscles to satisfy new regulatory requirements, or thinking through brand positioning and identity to become a company that users can trust with their money," she says.

Nevertheless, Datos Insights' Moore is bullish X will eventually deliver the goods. "Given his background, Elon Musk gets my attention when he says he's interested in creating a P2P payments network," she says. —Peter Lucas

GUESS WHO ELSE WANTS TO CAP CARD ACCEPTANCE COSTS?

Having taken aim at credit card late fees and interest rates, and having targeted non-bank digital wallet providers, Consumer Financial Protection Bureau Director Rohit Chopra indicates his regulatory agency is turning its attention to credit card acceptance costs.

Chopra's comments in December came as the Credit Card Competition Act, which is aimed at reducing merchant card-acceptance fees by requiring network choice, has been re-introduced in Congress.

During an interview on CNBC's "Squawk Box," Chopra said the agency has heard from merchants that credit card acceptance fees have reached a point where they "don't know how much they're going to pay when a card is swiped depending on if it's a credit card or debit card or something else."

While Chopra addressed credit card acceptance costs, his primary focus was on ensuring competition. "It's not about price setting, it's about competition," said Chopra, who did not specifically mention the CCCA or take a position on it.

The CCCA would require financial institutions with \$100 billion or more in assets to enable at least one network other than Visa or Mastercard for credit card transaction processing. The bill, initially introduced in 2022, was reintroduced in the Senate last year by its primary sponsors, Senators Richard Durbin (D-Ill.) and Roger Marshall (R-Kan.).



During the interview, Chopra acknowledged there is "bipartisan interest in Congress" in how to deal with acceptance costs. But, he added, as a regulatory agency the CFPB is going to "look to stop abuses and anti-competitive conduct" on the consumer side of the business. Chopra said the CFPB regulates only the consumer side in payments.

Chopra's remarks were welcomed by the Merchants Payments Coalition, which supports the CCCA and the need for more competition when it comes to credit card acceptance costs.

"Swipe fees have a huge negative impact on consumers, and it's significant to see the head of a consumer-protection agency expressing concern about them," Doug Kantor, an MPC executive committee member and National Association of Convenience Stores general counsel, said in a statement. "These fees are too much for small businesses to absorb, so it's consumers who ultimately pay swipe fees through higher prices."

Some payments experts, however, counter Chopra's contention that the card-acceptance business lacks competition. "Director Chopra manages to suggest that payments aren't competitive, which doesn't bear even cursory scrutiny," Eric Grover, proprietor of the payments consultancy Intrepid Ventures says by email. "Retail-payment-network competition including Visa, Mastercard, American Express, Discover, PayPal, Venmo, increasingly Zelle, open banking, and cash, is intensely competitive. Issuing and acquiring, too, are ferociously competitive," Grover adds.

Grover, who opposes the CCCA, says, "The CFPB has been clever and relentless expanding the scope of its regulation."

The CFPB has been active this year in seeking to expand its oversight in such payments-industry segments as non-bank digital wallet providers and in arguing that credit card late fees and interest rates are taking a financial toll on consumers.

The Electronic Payments Coalition,

a trade group for banks and payments networks, countered Chopra's position that lack of competition is inflating card-acceptance costs.

"Credit cards are the safest, most convenient and cheapest way for consumers to pay and businesses to accept payment," an EPC spokesperson says by email. "Placing mandates on our nation's payment system similar to those in other countries where the government set price controls will limit access and increase costs for consumers.'

"The real question supporters of Durbin-Marshall haven't answered," the spokesperson adds, "is why should anyone believe these mandates will result in savings for consumers?"

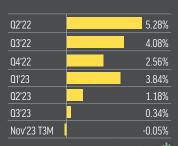
-Peter Lucas

MONTHLY MERCHANT METRIC Total Same Store Sales YOY Growth %

This is sourced from The Strawhecker Group's merchant datawarehouse of over 3M merchants in the U.S. market. The ability to understand this data is important as SMB merchants and the payments providers that serve them are key drivers of the economy.

All data is for SMB Households defined as households with **less than \$5M in annual card volume**.

Metric Definitions: (Only use definitions related to an individual month's release) Same Store Sales YOY Growth % - Annual volume change/growth of retained (non-attrited merchants with positive revenue and volume) accounts for given period divided by total portfolio volume from same period of the prior year



Note: Previous metric included all active merchants, those with positive revenue, whereas the new metric shown only includes merchants with postive revenue and volume

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Security notes trends & tactics TIME FOR HARD THINKING ABOUT CRYPTO

ON JAN. 10, 2024, the Securities and Exchange Commission enabled the public to trade Bitcoin without resorting to its cryptographic attributes. This action opens the maverick currency to a massive influx of U.S. dollars—a critical milestone in world affairs.

When *Digital Transactions* was launched, digital transactions were transactions of digitally represented money secured by cryptography. Nobody imagined that a few years later cryptography would rise way beyond its role as a security guard, to assume a role as the building blocks money is made of. It was an intellectual surprise at the level of Einstein's observation that the sun bends rays of light. And now, with Bitcoin in its second decade, we are still grappling with this new form of money.

Bitcoin inspired a remarkable insight: motion creates value. The more you trade something, the more inertia its price develops, even if this something is vague, unexplained, abstract, and useless per se. I will pay \$10 to buy something, even though I have no idea what it is, because I believe I will be able to sell this mysterious thing for \$11 tomorrow. I so believe because I expect the buyer is confident she will sell the same "black box" for \$12 the day after tomorrow.

This is an earth-shattering idea. The essence of what is being traded



is irrelevant and does not have to be understood at all. Until Bitcoin, the assumption was that money the public uses must be an entity the public understands. People used to bite metal coins to sense they are real. But Bitcoin's foundational ingredients are obscure mathematical constructs that almost nobody fully understands. And yet that ignorance is irrelevant. Remarkable!

And where do we go from here? Money is the lifeblood of society. When money transforms in its essence, the impact on society is enormous. Financial experts, economists, sociologists, politicians, and philosophers are grappling with both the threat and the opportunities presented by a financial edifice created with cryptography as its cement.

This dilemma reflects the global question of democracy versus authoritarian governance. Bitcoin reflects the idea of democracy—power in the hands of the multitude, in this case, the trading community. But the oncoming waves of central bank digital currencies (CBDCs) exploit the tenets of crypto money to effect a massive destruction of privacy and thereby itrtoduce the specter of population control through central control of who pays and gets paid.

For visionary thinkers, digital money stands to solve the age-old conflict between capitalism and socialism. They see it creating a core of capitalism, enveloped in socialism at the bottom and at the top. Survival paychecks for the poor, and a wealth ceiling for the very rich, with free trade in between.

Digital-money technology can support this or similar visions. It is now a political question. And while we are at it, here come quantum computers that threaten the entire cryptographic foundation that the new money is built upon. Will money cryptography hold out against the quantum attack, or will everything that has evolved since 2009 quietly, or not so quietly, fade away?

The most remarkable thing is we will soon all be guided by personal AI avatars that would motivate us to act for the good of society. Given that the mission of money is to motivate members of society to contribute to it (and get paid), if this motivation can be achieved otherwise, money will become useless and passé. It is not easy to think about this, but think we must lest we are carried away by unknown forces into an unknown destiny.

HOW DO YOU CREATE AN OMNI-COMMERCE SOLUTION PAYMENTS THAT GO BEYOND CONTACTLESS

Back in 2019, we were all wondering if contactless payments would ever catch on in the United States. Then the pandemic hit, and contactless payments went from curiosity to safety and health-influenced requirements. The payments industry found itself in a mad dash to add contactless payments into applications, access control, and everywhere else. Now, we have the opportunity to look at contactless payments with fresh eyes and see how it has evolved, how we can make it better and how to offer consumers a preferred way to pay.

QR Codes, digital invoicing, card-on-file, loyalty, subscriptions, and reward programs have brought payments beyond contactless into the domain of touch-free. We have been doing it for years with eCommerce, but now eCommerce is expected to allow for mobile wallet payments, Venmo[®], PayPal[®], and include conveniences and coupons that Apple[®] VAS and Google[®] Smart Tap afford.



Independent software vendors encounter significant challenges in developing an application that allows consumers to pay from their mobile wallet, bank-issued cards, and other methods. This challenge is compounded when considering consumers may be paying in-person, online, paying within the retailers' application, or even over the phone. And on top of this is the need to secure these payments. Fraud threats from spoofing, phishing, and more require protecting payment methods in a variety of environments.

Having a solution provider deliver security through dynamic encryption and tokenization, with a PCI-DSS infrastructure, and offering omni-channel support to initiate and complete payments becomes critical.

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payments 3.0trends & tacticsA TREND TO CASH AND PAY BY BANK

THE FIGHT OVER interchange—and the future of payments—is moving to a new arena – the point of sale.

Proposed rules on debit card interchange could become a sideshow to the main event that seems to be gearing up at cash registers and in remote payments.

Two trends seem to be shifting the market. The first is merchants trying to influence payment choices with discounts and fees. The second is technology that encourages direct payments from bank accounts.

Since the Dodd–Frank Wall Street Reform and Consumer Protection Act of 2010, merchants have been able to offer cash discounts to shoppers. Cash discounts have been used by gas stations since the early 1980s, and by 1989 just over a third of gas stations in the United States offered discounts to cash customers, according to a 1991 paper from Purdue University. That paper recorded a subsequent decline, but a 2022 survey by NACS, a convenience–store trade group, found that 29% of c–stores offered cash discounts on gas.

Gas stations are not alone. Restaurants, retailers, and even gyms and nonprofits are pushing customers towards cheaper payments.

The flip side of discounts is fees. Merchants have been allowed to add a surcharge to credit card transactions since 2013, according to a Visa FAQ on surcharging. An additional Q&A



document from Visa says that only four states—Connecticut, Maine, Massachusetts, and Oklahoma prohibit surcharging. Surcharging is not allowed on debit transactions. About 23% of merchants were surcharging as of 2022, according to a report by The Strawhecker Group.

The interest in surcharging has no doubt grown as cash use has declined. We can probably blame Covid for this, too, as card transactions increased during and after the pandemic.

The second trend, related to the first, is that merchants are encouraging people to pay directly from their bank accounts. For example, in December the YMCA of Greater Cleveland, Ohio, sent a letter to its members stating that, as of Feb. 1, "if you are paying for your membership or program by credit or debit card, you will begin to see an infrastructure fee of three percent added to your monthly transaction ... Those who pay by electronic funds transfer (EFT) directly from your bank account or with cash will not incur this fee."

When I contacted them, the Cleveland YMCA told me they were

not alone in adopting this strategy. In fact, so many other YMCAs using the same payments platform were planning to add a similar fee that Cleveland had to delay the start of its infrastructure fee. The platform provider, Daxko LLC, did not respond to a request for comment.

Payments processor Fiserv Inc. has been marketing its pay-by-bank service as a way to disintermediate card payments. It says it uses the recently launched FedNow real-time payment service to facilitate transactions.

The push toward cash for in-person payments, along with direct payments from bank accounts, creates a challenge for payments companies: the push aims to displace all cards. Debit cards may be less expensive than credit cards, but they are still a target.

While consumers are creatures of habit, habits can change with discounts and rewards. Payments companies will need to take a holistic look at their businesses to adapt to the changing payments climate.

Banks may find opportunities to offer pay-by-bank services. Card companies may find ways to provide closed-loop or semi-closed-loop cards on restricted authorization networks. Card-fee reimbursements could become the next big credit card perk. Regardless, every link of the value chain needs to be on the lookout for new opportunities.

acquiring DON'T LOSE THE KEY TO YOUR DATA VAULT

For payments software platforms, control of transaction data is the key to a smooth M&A process.

BY RUSTON MILES

Ruston Miles is founder and strategic advisor at Bluefin.

ANALYSTS AND BUSINESS leaders have spent the past year scrutinizing the impact of increasingly volatile revenue streams on critical organizational functions. Across industries, this includes variables like employee headcount and retention, physical office requirements, and sales strategies.

While decision-makers have tailored their resources toward addressing these high-profile factors, limited capital is surfacing a new and potentially unexpected consideration in 2024: a mergers and acquisitions (M&A) boom.

But as software-as-a-service (SaaS) organizations turn to M&A strategies



for growth opportunities that would be difficult to achieve independently, owning their own data may be the missing piece to a proper valuation.

Why is data ownership so important to potential investors? In an increasingly data-driven world, it makes sense that ownership of organizational data can significantly impact the M&A process. For SaaS players, this means owning data related to payments processing as well as transactional data and other customer-relationship information.

While it may seem like a no-brainer that SaaS companies would own their data, this isn't always the reality. For example, many organizations partner with a large payments processor (for example, Stripe or PayPal) to offload the bulk of their transactional responsibilities. This approach allows early-stage SaaS companies to focus on other mission-critical work.

But over time, the dynamic poses a threat to organizations that are ready to enter the next stage of business growth.

A KEY FACTOR

Eventually, most SaaS payments companies want to break away from large payments processors. There are a couple of reasons for this. First, they want to maximize revenue earned from handling their own payments processing. Second, they want to increase the appeal of the SaaS side of their business.

However, the large payments processor they've historically outsourced to likely owns all card-on-file data, preventing the data's portability and usefulness. Data portability is a key factor in an organization's claim to ownership over payments-processing revenue. This means that a lack of data portability downgrades the company's quality of revenue and its overall valuation.

By contrast, the inclusion of payments revenue would lead to a substantially higher valuation than could be achieved through SaaS revenue alone.

Imagine you're an investor. You're interested in acquiring a software company that provides services to gyms. When you inquire about key metrics and ask to review gym membership card-processing data for the past few months, the company's officers inform you they lack access to this crucial information.

That's a problem. In many scenarios, this lack of data ownership may ultimately disqualify the company from consideration as part of your acquisition portfolio.

And even if the company remains a part of your potential acquisition pool, you know the upcoming process of helping the gym software break away from its existing large payments processors will be a painful one, characterized by high transfer fees and time-consuming re-onboarding of merchants on your new processing platform.

This is how allowing third-party processors to retain ownership of data poses a significant risk to companies' valuations. It simply doesn't make sense to invest in a software company that is unable to access its operational and customer data—one of its most valuable assets.

TOKENIZATION AS STRATEGY

As the need to secure ownership of data increases, a key strategy is emerging to allow organizations to retain ownership of their data. This strategy is characterized by tokenization.

Tokenization is the process of replacing sensitive information found in a company's systems with one-of-akind "tokens." These tokens represent our personal data during transactions and other types of digital engagements, making this information easily accessible but much less vulnerable to hackers and system breaches.

Even if a bad actor acquires a customer's token, the tokenization security measure leaves the token unreadable and the customer's sensitive information untouched.

It's important to recognize that tokenization is a familiar concept in the relationship between SaaS companies and the large payments processors they work with. Payments processors are often prepared to offer customers free tokenization, or to charge very little for the service.

But while this offering seems like an upfront value-add for customers, it's also self-serving. Tokenization via a large payments processor can act as a mechanism to lock in companies by making it difficult for them to terminate partnerships.

Let's revisit the example of our fictional gym-membership software company. If the company listened to your feedback as a potential investor, the leadership team may decide it's time to cut ties with their payments processor and either switch to a new processor or take the work in-house.



Miles: Companies should be doing all that they can to increase their attractiveness to investors. After all, you never know when a potential deal might pop up.

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But the choice is not that simple. The existing processor agreement may preclude this kind of change. Or the processor could charge a significant fee to convert token data off their platform, dragging out the process in terms of both time and money.

Either outcome negatively impacts the strategic value of acquiring the company and leaves you, the investor, more aware of the risks involved. You may pass on the transaction altogether in favor of a deal for a similar company that already owns its own data. Or you may attach a lower multiple to the payments revenue included in the valuation as a reflection of the risks posed to you as the investor.

Let's be clear, though: Tokenization is the right idea. However, the key is to separate the tokenization process from these large payments processors.

CRITICAL ACCESS

While large payments companies could easily share tokens with their customers, many choose not to, instead using this critical financial information as a means to bind customers to their services. This unwillingness to share transactional data significantly raises the costs associated with switching to another provider and deters customers from leaving due to the high operational burden of doing so.

But the data at stake is too important to let go so freely. SaaS companies should start by demanding tokenization portability—and then, rather than rely on a large payments processor for tokenization, migrate to a third-party tokenization provider when the opportunity allows. A third-party partnership offers:



- The ability to easily detokenize data and quickly share access to transactional information;
- The opportunity to develop multiple payments- processing relationships at once and maximize the strategic options each vendor provides, uniquely routing transactions to the processor of choice;
- The synergy required to appeal to potential investors and/ or acquirers, with reliable data portability showcasing greater value, flexibility, and strategic options;
- The control over components of tokens required for sharing, which reduces cross-partner and cross-organizational risks.

Some SaaS companies will reject the notion of controlling their own transactional data. They would rather avoid touching card data due to complex PCI compliance rules, security requirements, and other privacy regulations and concerns.

However, there's a big difference between the ability to easily access card and merchant data when required, and having your system and teams touch this data on a regular basis.

This access factor is most critical in the M&A arena. With a leading third-party tokenization vendor, SaaS companies can be assured their card and merchant data remains protected and stored for them, without the need to access detokenized data until an opportunity demands it — whether it's to migrate to another processor or to share business insights with a potential investor.

STRONGER OPTIONS

Regardless of whether your organization is nearing an acquisition in 2024, don't lower your company's valuation by leaving a key asset your data — off limits.

When it comes to any potential M&A, companies that own their own data are more attractive to investors, and independent tokenization is a critical step in ensuring a proper valuation.

In a sale scenario, the final price tag boils down to revenue times a multiplier. If your company lacks data portability, your revenue valuation decreases and you're forced into discounted multiples.

Conversely, SaaS leaders that have architectured easy and reliable access to merchant and card data can tap into stronger investment options and avoid having their valuation lowered due to perceived risks—or, worse, losing the offer altogether.

strategies Al'S TIME HAS COME

Machine learning has long been a tool used by payments companies. Now, artificial intelligence is poised to offer even more utility. Safeguards will be needed.

BY KEVIN WOODWARD

ARTIFICIAL INTELLIGENCE IS on

the cusp of changing how payments companies interact with each other and extract insights from the billions of units of data they collectively hold and gather. All in all, AI is about to make some aspects of payments processing easier.

But adoption of the technology is not without costs. How that will play out, which factors will be most influential, and which basic choices payments companies make regarding how they employ AI will determine their success.

As defined by IBM Corp., artificial



intelligence is a field that combines computer science and robust datasets to enable problem solving. It is not a new endeavor for the payments industry. Machine learning, a branch of AI that uses data and algorithms to imitate the way humans learn, has been in use in the payments industry for years, again according to IBM.

"AI models communicate and appear to reason like human beings," says Paul Harrald, chief financial officer at Curve Ltd., a London-based fintech, "whereas machine-learning models are numerical computations. In effect, AI models influence human observers in a way that ML models do not—they appear to communicate and reason to be creative." AI today is sometimes labeled generative AI, or genAI for short, because it can generate content.

"AI will undoubtedly expand the scope of opportunities for banks, fintech companies, payment services providers, and other entities in the financial sector," says Tue To, head of advanced payments and fintech for North America at Edgar, Dunn & Co., a San Francisco-based payments consultancy.

"We are currently witnessing only the initial days of generative AI," says Luis Silva, chief executive and founder of CloudWalk Inc., a Brazilbased payment provider planning a U.S. expansion for this year. "Existing forms of AI are propelling innovation in payments, and increased customer satisfaction."

How this may play out, and specifically how payments companies may incorporate AI into their operations beyond any direct payments application, could add value beyond the transaction itself.

THE IDEAL PROBLEM

"There are a number of promising applications for [generative AI] in the payments industry," says Shannon Johnston, chief information officer and senior executive vice president at Atlanta-based Global Payments Inc. "I would put them in five main categories: managing fraud and risk; enhancing operational customer support; delivering friction-free payments; enhancing operational efficiencies; and enabling new payment products."

Johnston says managing fraud and risk with AI assistance has emerged as an obvious application. "Currently, fraud-detection systems have too few 'genuine' or strong fraud cases to analyze and learn from," she says. "With genAI, you could produce synthetic examples of fraud based on the patterns established by actual cases. These sequences would, in turn, help improve fraud-detecting systems."



Other observers similarly view fraud as an ideal problem for AI applications to work on.

"Payments fraud has gotten significantly worse in recent years," says Tony DeSanctis, senior director at Cornerstone Advisors, a Scottsdale, Ariz.-based firm. AI could improve the ability to identify fraud and risky behavior, he says. Like many current tools, AI could be used to reduce fraud to zero. But that would risk impairing a consumer's ability to make a payment and a merchant's ability to accept one.

As an example, AI could help with the auto-decision process that occurs when a consumer who reliably purchases a cup of coffee once a day suddenly makes a purchase of six laptops, DeSanctis says.

And while machine learning has been used in helping with fraud mitigation, AI could advance these efforts, says Malcolm DeMayo, vice president of financial services at Nvidia Corp., a Santa Clara, Calif.-based computingtechnology provider. There may be an envelope of only 1,500 milliseconds from tap or dip to a go-no-go decision from the issuer—to determine whether the transaction is valid or potentially fraudulent, he says.

"Being able to identify fraudulent activity in that 1,500-millisecond envelope is really super important," DeMayo says. AI can help improve the accuracy of these decisions, he says.

AI-enabled companies will be able to do more, DeMayo says. "Technology has always enabled us to do more. AI is allowing us to do more better."

That's how fintech One Inc is viewing AI's potential for its operation. Based in Folsom, Calif., One focuses on payment services for the insurance industry.

AI could produce multiple benefits for the payments industry, says Ian Drysdale, One's chief executive,



Gundabattula: "There could be financial gains for payments companies as a result of leveraging GenAl." among them more secure transactions, optimized processing that lowers costs, and enhanced experiences.

"With the ability to understand and adapt to emerging fraud patterns, generative AI can continuously evolve security measures. This adaptability is crucial in staying ahead of everevolving threats in the landscape of payment security," Drysdale says.

"Generative AI can also assist in making data-driven decisions by analyzing vast amounts of transaction and customer data," he adds. "This efficiency can lead to operational and strategic improvements, benefiting both payment providers and consumers."

As DeSanctis says, AI employed to aid messaging could avoid the problem of consumers receiving multiple messages that repeat previous ones or don't apply to that consumer.

As an example, DeSanctis says he recently opened an account with an online financial-services firm. He then received four emails a day at least three days a week from that firm. "I got emails about student-loan refinancing," he says. "I haven't had a student loan in years."

AI could also help improve the customer focus and make marketing messages more personalized. "For end customers, if the AI application is more customer-focused, we could see less friction and more fine-tuned step-ups," says Ananth Gundabattula, cofounder and senior architect of AI, data, and privacy at Darwinium, a fraud-prevention platform for payments providers and fintechs.

"There could be financial gains for payments companies as a result of leveraging GenAI to make better-informed recommendations of exchange rates, dynamic pricing [and so on]," he says.



To: "AI will undoubtedly expand the scope of opportunities for banks, fintech companies, payment services providers."

YOU HAVE TO BE SMARTER

AI has a lot of potential benefits, but there is a cost. First, across many cultures, there is some broad distrust of artificial intelligence that comes without human control. The European Parliament has proposed the AI Act, which would require the use of AI to be declared when users interact with applications that use it.

And, as DeMayo says, AI is a tool that anyone can use, and that includes bad actors. "You know some bad people are going to get their hands on it," he says. "The only way to fight that is to make sure we stay ahead."

There also are concerns about a lack of transparency regarding AI's decision-making protocols. "While there are lots of benefits with the usage of AI, it also raises valid concerns regarding lack of transparency ... potential discrimination or bias, data privacy, and the absence of human empathy in interactions," says Edgar, Dunn's To.

"Balancing automation while preserving a human touch and ensuring robust data privacy and security, coupled with ethical considerations, is crucial for long-term success in business," To argues. Johnston at Global Payments suggests financial, environmental, and governance issues may impede AI growth. "In a conservative environment in terms of macroeconomic headwinds, brands will be careful about spending substantial resources on AI unless it truly has a counterbalance of cost savings. Many CIOs will be asking, 'How do I make this technology affordable?'" Johnston says.

The energy to power the considerable computing needs of AI also could affect a company's carbon footprint and its energy use, she says. A lack of a formalized policy or strategy could be an impediment, too. Such a policy "includes providing a forum for people across an enterprise to talk to each other, so they are sharing their knowledge around best practices, successes, and failures," Johnston suggests.

Another issue may be the perception that AI will replace human workers, especially those in programming positions.

"AI will not replace people," DeSanctis declares. "People who know how to use AI will replace people who don't know how to use AI. You have to be smarter."



YEARS OF PAYMENTS COVERAGE

Digital Transactions celebrates its 20th birthday with a review of the 10 major themes that continue to preoccupy the industry

By Peter Lucas, John Stewart, and Kevin Woodward

When publishers start a magazine, whether in print or online—or both—there's simply no way to tell how long it will last. There are too many unpredictable factors. But the publishers can count on one thing: editorial rigor won't guarantee success in this crazy business, but it will help make it more likely.

We like to think we've applied that rigor over the years, and are now blessed to celebrate the 20th anniversary of a business magazine we started because we didn't see another one in the market that was bringing a critical eye to the reporting of a remarkable development—the steady, inexorable digitization of payments, one of the world's oldest industries.

Nor has that trend exhausted itself. Coins, bills, and checks continue to circulate as industry potentates work to solve issues both real and political. From the beginning, our stress has been not so much on the mechanics of this digitizing trend, but on the thinking the strategy—behind it. We've also paid close attention to exogenous factors that tend to change the color of those strategies month to month and year to year, things like state and federal regulations and overarching trends in the economy.

In this mix, we like to think we haven't lost sight of the pace of change in the technology that has emerged, and evolved, over the years. We don't mind saying the arc of innovation in digital payments never fails to impress us. Imagine 20 years ago—for that matter, 10 years ago—processing a transaction by lightly tapping a card on a mobile phone, with no attachments and nothing but installed software to handle the details. It would have been the hobgoblin of only the keenest imaginations a generation ago.

Still, the pace of change in this business can also surprise us, so we hesitate to predict what we might find when the time comes for a 30th anniversary issue. That milestone will arrive early in 2034, should we be so fortunate. If you'd care to hazard a few predictions, we'd be only too happy to hear from you. You never know, your insight may wind up gracing our narrative in that issue. It will arrive sooner than we—and you—may think.

But for now, in the pages that follow, you'll find our review of 10 major trends that have emerged or maintained their significance since that 10th anniversary celebration in 2014.

ACH

The automated clearing house remains one of the stalwarts of the payments industry and for good reason: the network's reliability and ubiquity.

Even competition from the RTP and FedNow networks, which settle transactions in real time compared as many as three days for the ACH, is not expected to harm ACH volume. If anything, the three networks are considered complementary to one another.

"Although distinct, instant payments (RTP and FedNow) and ACH payments, including same-day ACH payments, are complementary," says Michael Herd, senior vice president of ACH network administration at Nacha, the governing body for the ACH.

"These faster payments will coexist and offer more choices, which benefits customers and the payments industry," he continues. "Nacha is forecasting that ACH payment volume will continue to grow, especially as businesses reduce check usage and shift to traditional and same-day ACH."

A key factor for the ACH is that the network reaches all bank and credit union accounts in the United States. With funds settling four times a day, that means ACH payments are available to clients throughout the business day. Plus, ACH payments and interbank account transfers of up to \$1 million can be completed in a few hours using same-day ACH, according to Nacha.

Going forward, Nacha says it will continue to explore ways to improve the ACH, such as extended hours and international ACH eligibility to improve same-day ACH.

DEBIT CARDS

It's been a busy decade for debit, and one that has largely benefited the product. Indeed, in a dramatic turnaround, fully 56.2% of consumers named debit as their primary payment card in 2022, up from 40.2% only a year earlier, according to an S&P Global Market Intelligence survey that queried 1,259 consumers in 2021 and 1,691 the next year. The turnabout came at the expense of long-time favorite credit cards, which slumped from 54.6% to 39.5% in that one-year span. That, quite simply, had never happened before.

Why the big turnaround for debit? Well, Covid, for one thing. The effects of the pandemic sent consumers scurrying to squirrel away cash and keep tighter reins on spending—all while controlling debt. In this environment, debit became popular for everyday spending. But two other factors also account for the turn to debit: the rise of contactless payments and the emergence of the buy now, pay later option online and at the point of sale.

BNPL attracted consumers—especially younger ones—with the allure of easy payments they can make with cash through a debit card. Meanwhile, merchants' rapid adoption of contactless-payment technology encouraged consumers to tap a card, a habit that boosted debit usage as readily as did that of credit cards.

At the same time, consumers have become increasingly comfortable using debit to pay bigger tickets, including hotel bills, airline fares, and car rentals. This, too, springs largely from the impact of the pandemic, but the turn to debit is expected to last as consumers show interest in using debit as they once did cash—to monitor and control spending.

How long issuers will promote debit, though, is an open question as the Federal Reserve plans to reduce a long-standing ceiling it imposes on how much issuers can earn on transactions. In October, the Fed proposed a 31% cut in the main component of debit card interchange, a move that would drive that fee down to 14.4 cents from 21 cents. The reaction from the banking lobby was, to say the least, quick and emphatically negative.



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INTERCHANGE

In the 20 years *Digital Transactions* has been publishing, not much has really changed on the interchange front. Merchants still hate it, the card networks still refuse to change the model, and legislators and regulators still haven't tackled the issue head on.

That's not to say efforts to reign in merchants' interchange costs have dried up. In early 2023, Georgia introduced legislation to ban the portion of credit and debit card transaction fees that apply to sales tax. The bill was aimed at restoring fairness to the collection of sales tax and reducing the impact of inflation on Georgia merchants.

Despite such legislation, federal regulators and Congress aren't expected to take up the fight against interchange. "The Federal Reserve has said in the past it has no authority to regulate interchange and there is no indication the critical mass exists in Congress to tackle it," says Eric Grover, proprietor of payments consultancy Intrepid Ventures.

Two potential forces that could prompt the card networks to revamp interchange are alternative and real-time payments. While both are cheaper for merchants to accept, they currently lack the ubiquity to force the card network's hands when it comes to interchange, Grover says.

That could change within the next decade, argues Cliff Gray, a senior analyst for consultancy TSG. "Interchange is ultimately going to drive merchants to prefer to accept lower cost alternative payments, as well as real time payments, which cost less to accept, too," says Gray. "How can merchants not love lower-cost alternative payment methods? I don't see the interchange model surviving as is."

ISOs

Predictions that the independent sales organization model would disappear were easy enough to find 10 years ago. Yet, today there are 1,341 ISOs on record serving merchants in the United States, according to the Visa Global Registry of Service Providers, updated Dec. 30.

Clearly, the ISO model has not gone away, but it hasn't remained static, either. Indeed, ISOs adapted in three key ways: offering integrated payments; working with software developers and vendors to ensure merchants have access to secure payment processing; and courting new markets.

ISOs have not been free of external forces, either. Consolidation has been a driving force among them. Still, while the big may get bigger, there's plenty of room for smaller ISOs and payments companies. The key to survival is adaptability. That's what worked for ISOs in the past and what will be required in the months and years ahead.

"Flexibility in target merchants, flexibility where marketing funds are invested (if at all), and the ability to pivot when an opportunity presents itself," Jeff Fortney, senior associate at TSG, an Omaha, Neb.-based advisory firm, told *Digital Transactions* last year.

The outlook is solid for ISOs as long as they can help solve payment problems for merchants. "There's plenty of opportunity for smaller ISOs and ISVs," says Justin Passalaqua, country director for Worldline's North America operations. "There's always going to be problems that need to be solved in the commerce of our world." For ISOs, especially smaller ones, the drive to reach scale is critical. Adds Fortney: "The small ISO is primarily a sales engine. Their sole goal should be to sell."



MOBILE PAYMENTS

Ten years ago, the idea of mobile payments changed forever with the debut of Apple Pay. Though other mobile-payment services had been around—Google Wallet launched in 2011 and is now known as Google Pay—the buzz around Apple Pay generated widespread consumer interest. The advent of smart phones, along with a continued push from card brands to expand contactless-payment acceptance, helped fuel the growth of mobile payments.

While mobile payments had long since been adopted in some international markets—Japan, for example—they had yet to gain significant consumer interest in North America. Apple Pay helped change that, but only so much. The Covid pandemic, as it had done with many other aspects of consumer activity, definitively changed that.

Just before the pandemic, in November 2019, one survey found that, globally, 16% of consumers on average returned to a payment app the day after installing it. For context, by 2015, 25% of U.S. consumers had made a mobile payment—defined as at least one payment within the last 12 months and by 2021 that proportion had ballooned to 68%, according to the 2021 Federal Reserve Diary of Consumer Payment Choice.

The EMV migration, which began in earnest in 2015, also helped as most new point-of-sale terminals included contactless-payment acceptance technology. Concurrently, POS systems were designed with contactless in mind.

"Operating systems had already been upgrading to more modern standards, especially Linux. The explosion of mobile phones completed the migration to Android and iOS, both Linux derivatives," says Cliff Gray, senior associate at TSG, an Omaha, Neb.-based payments-advisory firm.

"Square, Clover, and other similar products, along with Android-based platforms from Ingenico and Verifone, are leading product offerings in many traditional verticals, as well as enabling full EMV acceptance in previously impractical environments," Gray adds. "Players of sizes all have heavily invested in mobile technology, with no signs of that lessening. Developer communities have already made the decision, and it's all mobile, all the time.

PREPAID CARDS

Perhaps one of the cause-and-effect outcomes that could not have been precisely predicted was the impact widespread bank closures have had on prepaid cards and other banking products. As *Digital Transactions News* reported late in 2019, a recently released Federal Reserve report had found "that while banks opened some branches in the study period, 2012 to 2017, they closed many more, leading to a net loss of 6,764, or 7% of all branches." Both urban and rural counties were affected.

Rural ATMs and payday lenders benefited from that culling, but so did prepaid cards as consumers turned to the product as an alternative to banking.

Indeed, that move prompted some banks to offer deposit insurance on prepaid card balances. In Canada, for example, "Vancouver-based Peoples Trust Co. is extending eligibility for deposit insurance from the Canadian Deposit Insurance Corp. to general-purpose reloadable prepaid cards and payroll cards issued by the financial institution," *Digital Transactions News* reported in January 2021.

But last spring, the Consumer Financial Protection Bureau issued a broadside against the use of prepaid cards as a means to deliver government benefits to consumers. The CFPB's complaint? Lack of consumer choice, poor customer service, and high fees. But the regulator's broadside skipped over some important factors, as Ben Jackson, the Payments 3.0 columnist for *Digital Transactions*, noted at the time.

"The Bureau's critique seems to ignore the cards' cost savings for governments," Jackson said in his April 2023 column. "Fair enough. This is the Consumer Financial Protection Bureau. But it also ignores the cost of the alternative for unbanked recipients. Paper checks would lead to check-cashing fees and costs for things like money orders, as recipients without cards would be cut off from electronic payments."

REAL-TIME PAYMENTS

Fifty-two pages. 853 posts. That's what you get when searching on the term "real-time payments" on DigitalTransactions.net. The notion of real-time payments has been around for many years, but the conversation around it ramped up when The Clearing House Payments Co. LLC debuted its Real Time Payments network in 2017, accompanied by real-time person-to-person payments from Early Warning's Zelle earlier that year.

Through the years as the ACH system added same-day processing and the card brands added real-time capabilities for their cards—Mastercard Send and Visa Direct—interest in real-time payments again ramped up last year. That's when the Federal Reserve's FedNow service launched, lending credence to the idea that instantly cleared and settled payments are part of the payments establishment now.

"There have been core advances over the past five years in the U.S., including the development of the RTP Network, FedNow, and Zelle (which utilizes the RTP Network and ACH to push fast payments between peers). Outside of the [United States], other countries also utilize a variety of real-time payment rails, most of which were developed in the past 10 years," says Sheridan Trent, director of market intelligence at TSG, a payments advisory firm, in an email message.

While Zelle is consumer-facing, much of the action in real-time payments has been on the business side. "Real-time payments are still, by and large, a [business-to-business] phenomenon used for large transactions," Trent says. "In terms of impact, the Clearing House's RTP Network has been around the longest, and [it] reported \$74 million [in] transactions in the fourth quarter of 2023, which is substantial."

The outlook likely is strong for B2B payments through real-time payments networks, Trent says, with potential strong growth in crossborder applications.

REGULATION

While regulation tends to ebb and flow depending on the political climate, the payments industry has seen a more active regulatory climate since 2020. Leading the charge has been the Consumer Financial Protection Bureau, which has increased its oversight of buy now, pay later loans, peerto-peer payments network scams, and late fees, among other matters.

But payment providers and networks aren't the only ones in the payments industry coming under the scrutiny of the CFPB. Big Tech is also on the regulatory agency's radar with a proposal that non-digital wallet providers such as Apple Inc., Pay Pal Holdings Inc., Alphabet Inc.'s Google unit, and Block Inc.'s CashApp be regulated like digital wallets provided by financial institutions.

And the CFPB isn't the only regulatory agency turning up the heat. The Department of Justice has opened its own probe of Visa Inc.'s and Mastercard Inc.'s debit card practices. Even Congress is getting in on the act with the re-introduction of the Credit Card Competition Act, which takes aim at lowering credit card swipe fees by giving merchants a choice of network, other than Visa and Mastercard, over which to route credit card transactions.

"Regulatory enforcement has clearly been picking up," says Doug Kantor, an executive committee member at the Merchants Payments Coalition and general counsel for the National Association of Convenience Stores.

One area where Kantor sees regulators turning their attention lies in anti-trust issues, which means large companies. "There is a growing concern in general in government about large companies," says Kantor. "As more scrutiny comes, there will have to be changes to the way the payments industry operates."

SURCHARGING

Few, if any, topics in payments are as vexed as that of surcharging—the practice by merchants of adding on to the price of a product purchased by credit card to cover the seller's credit card acceptance costs.

States at one time forbade the practice, but now all but two states—Connecticut and Massachusetts—permit surcharging so long as the added charge does not exceed the merchant's fee from its processor. And while surcharges can vary widely, they are capped by credit card network rules. Visa Inc., for example, last spring ratcheted its surcharge cap down from 4% to 3%.

In many cases, states have allowed surcharges but have added clauses to prevent sellers from profiting from them. For example, New Jersey in August passed a law permitting surcharges but limiting them to what the merchant pays to accept a credit card.

But late last year, Visa said it would step up its enforcement of surcharging rules, including the new 3% cap. Surcharges, Visa says, are generating some 6,000 complaints to the network annually from consumers. The network said it is increasing its merchant audits of merchants it finds out of compliance with its rules, and underscored fines it can levy against merchants that try to mask a surcharge as some other fee.

But at the same time, some acquirers have added surcharge programs to their merchant offerings, and the networks are stepping lightly to avoid hampering those services. "We are not going to take away your ability to surcharge or do cash discounting," a Visa executive told acquirers at a conference last fall. "That is not on the table. However, what is in jeopardy is the ability to do it incorrectly."

SECURITY

Cybercriminals have significantly upped their game the past decade. So much so, it is difficult to name a payments platform or device that hasn't been compromised in some way. Whether it be a mobile phone, POS terminal, a back-office system, or a consumer's personal computer, cybercriminals have numerous ways to beat cyber defenses to steal account and personal data.

One of the most concerning developments in the payments industry in recent years is how skilled criminals have become at persuading consumers to give up their identity-validation credentials through phishing scams. Once in possession of a consumers' or employees' credentials, no firewall or data-encryption application will protect account and personal data.

"If a criminal can get someone's cyber credentials, they can become that person in cyberspace and use that identity to breach systems [and accounts]," says Gideon Samid, chief technology officer for McLean, Va.-based BitMint, a digital-currency platform. Samid is also author of the "Security Notes" column, which appears each month in *Digital Transactions*.

Virtually impersonating accountholders or employees using their own credentials dramatically changes the cybersecurity game. "It's now less about prevention and more about early detection when it comes to breaches," says Samid. "Eventually, a criminal is going to use stolen credentials to gain access. That makes understanding your system, and who is accessing it, key."

That type of awareness starts with diligently tracking the behavior of every user on the system, because the behavior of cybercriminals is significantly different from that of regular users.

"We live in a global cyber village and criminals are our neighbors," says Samid. "The chance for someone to have their credentials stolen is enormous, which is why alertness and early detection are so important now."

THE ACH'S STAR STILL BURNS BRIGHT

Despite increased competition from real-time payments networks, the automated clearing house remains a force in payments and is expected to remain one for the foreseeable future.

BY PETER LUCAS

"UBIQUITOUS," "RELIABLE," "lowcost," and "highly efficient" are the adjectives that payments executives seize on when asked to describe what makes the automated clearing house the dominant network for accountto-account payments.

But with the launch last July of the Federal Reserve's FedNow network, which followed the 2017 debut of The Clearinghouse Payment Co.'s Real Time Payment network, realtime payments systems have firmly established themselves as competitors to the 52-year-old ACH. Indeed, the emergence of these new networks raises in the minds of some observers the question: Just where does the



ACH fit in the payments landscape going forward?

While slower than real-time payments, transactions routed through the ACH, whether they are sameday ACH or traditional ACH—which processes in up to three business days—the ACH provides plenty of value to businesses and financial institutions. This is especially the case when it comes to processing transactions in bulk.

And it is the value that businesses and banks see in the ACH that drives their continued use of the network, even in the face of real-time alternatives, payment experts say.

ACH volume so far shows no signs of slipping. During the third quarter of 2023 alone, the latest figures available, the network handled 212 million same-day payments with a total value of \$608 billion, increases of 20% and 27.1%, respectively, over the third quarter of 2022, according to Nacha, the ACH's governing body.

Through the first three quarters of last year, the ACH handled 597.6 million same-day payments totaling \$1.78 trillion, up 16% and 42.4%, respectively, compared to the first three quarters of 2022, Nacha says.

"Banks are bolted to the ACH, which is why it is so ingrained in the payments ecosystem," says Cliff Gray, a senior analyst for the payments consultancy TSG. "Asking a bank to move away from using the ACH is like asking Ford Motor Co. to completely retool its plant. It would be an extremely heavy lift."

<u>ACH'S COST EDGE</u>

Nevertheless, real-time payments networks are already proving they are better suited to certain types of transactions, such as paying gig workers, sending funds that must be available immediately, expediting refund and disbursement processes, and handling rebates and peer-topeer payments.

But, just as real-time payment networks have their own strengths, so too does the ACH. Transactions for which the ACH is well-suited include recurring payments, payroll, and business-to-business payments, observers point out.

"The ACH continues to work well for many use cases, including payins where real-time rails don't have a mainstream solution yet, and payouts that don't require speed," says Ajay Andrews, payments product lead at Plaid Inc., which enables fintechs to connect apps with users' bank accounts.

"Many of our customers are using the ACH and Plaid Signal for account funding use cases for investments, digital wallets, [and so on]," Andrews says. "For low-risk transactions, companies can confidently provide nearinstant access to those funds so users can start buying stocks or using the app right away." Plaid Signal enables businesses to evaluate the likelihood that a specific ACH transaction will result in a return.



Gray: "Asking a bank to move away from using the ACH is like asking Ford Motor Co. to completely retool its plant."

Other transactions well-suited to the ACH include consumer and business bill payments and recurring payments between known counterparties on known due dates—such as payroll and benefits—donations, and payments for health-care claims. "The ACH also works well for onetime and not-previously-scheduled payments of all sizes and volumes for consumers, businesses, and governments," says Michael Herd, senior vice president of ACH network administration at Nacha.

The greatest strength of the ACH, however, is that it can reach all bank and credit union accounts in the United States, and can be used for both debit and credit payments, something the RTP network and FedNow can't do, according to payments experts.

Also, one other advantage the ACH has lies in recurring payments, such as monthly bill payments or subscriptions. Those payments can be set up with relative ease by the consumer, according to Herd. "Furthermore, ACH payments enhance security by reducing the risks associated with paper checks," Herd adds.

Transaction cost is another advantage of the ACH. The Federal Reserve's public fee schedule shows that it most commonly charges financial institutions \$0.0035 (three-and-a-half tenths of a penny) per ACH payment originated, compared to 4.5 cents per payment as the system operator for FedNow, according to Nacha.

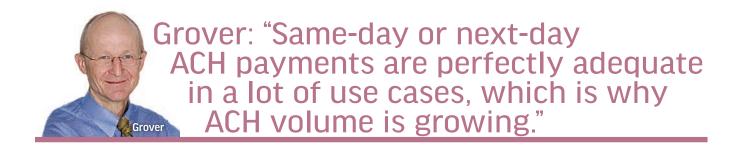
For business users, the cost of an ACH transaction is also far lower than it is for real time networks. The median cost of processing an ACH debit or credit is 40 cents. By comparison, the median cost of an RTP payment is calculated to be below \$2.50. "Banks won't find a lower cost alternative to the ACH," Gray says.

The lower cost of ACH transactions is a big selling point to businesses initiating large numbers of payments on a regular basis. "When it comes to large volumes of transactions, cost is a factor, as the savings from initiating an ACH transaction can add up quickly," says Eric Grover, proprietor of payments consultancy Intrepid Ventures.

THE VALUE CHAIN

Still, while cost will always be a factor in determining whether the ACH or a real-payments network is used to initiate a transaction, there are times when the speed of real-time networks will be seen as a value add—and an imperative.

To help financial institutions and businesses understand the value that real-time payments bring, Elena Whisler, chief client officer for The Clearing House, says the company regularly talks with users to help them understand the economic value of real-time payments, as well as use cases for the RTP and ACH networks.



"We talk to banks about the customers they serve, what their customers' needs are, and what kind of experiences those customers want, such as faster payments," Whisler says. "There are certain types of transactions that work well for the RTP network and some that work well for the ACH."

While Whisler says The Clearing House sees the ACH co-existing long-term with real-time payments as a payment option, she adds there will be use cases where the ACH does not offer the same value as real-time payments. An example: cases when a recipient needs immediate confirmation of funds.

A SCORECARD FOR SAME-DAY ACH

(Totals from inception in 2016 through 2022)

Transactions: 697.49 million Debits: 374.77 million Credits: 322.72 million

AVERAGE ANNUAL GROWTH RATE

Transactions: 15,5% Dollar Value: 85.9% Dollar Value Handled: \$1.75 Trillion Source: Nacha "The payments industry is used to looking at [the] cost of the transaction, not the value chain associated with processing that transaction," Whisler says. "We look forward to the day when real-time payments will be recognized for the value it brings as opposed to the cost of a transaction."

Transactions for which real-time networks are well-suited include pulling money out of an investment account, getting a loan disbursement, or paying an insurance claim. "These are all areas where speed provides a huge benefit for consumers," says Plaid's Andrews.

Paying a gig worker daily is also a frequently cited use case where realtime payments add value. "When someone can do a few jobs and then get paid instantly, the speed element offers a tangible benefit for consumers," Andrews says. "There is still a ton of opportunity on the payout side."

<u>'NOT IN OUR LIFETIME'</u>

Even so, the ACH's lack of real-time capabilities is not expected to be a hindrance to growth, observers say. "Real-time payments are only better if the recipient has an immediate need for the money," says Grover. "Sameday or next-day ACH payments are perfectly adequate in a lot of use cases, which is why ACH volume is growing."

Even though the ACH is slower, Nacha's Herd says an estimated 80% of all ACH payments still settle in one banking day or less. That's why the ACH "remains a preferred payment choice over paper checks for use cases that rely on debits, such as consumer bill payments," he adds.

Given the inherent strengths of the ACH, payments experts doubt it will be eclipsed any time soon by real-time networks. So far, there has been no appreciable cannibalization of ACH transaction volume attributable to the real-time systems, as RTP and Fed Now are still working to achieve critical mass, Grover says. "The ACH may go away one day, but not in our lifetime," he adds.

If nothing else, the ACH and realtime networks will operate as complementary systems. "These faster-payment networks will coexist [with the ACH] and offer more choices, which benefits customers and the payments industry," says Nacha's Herd. "Nacha is forecasting that ACH payment volume will continue to grow," he adds, "especially as businesses reduce check usage and shift to traditional and same-day ACH."

If the ACH and real-time networks do indeed wind up as complementary networks, it will mean banks and businesses have embraced a multi-rail payments strategy to optimize each network's efficiencies for different use cases, according to Andrews. "Ultimately, it's about using the best payment rail for the use case," he says. The real benefits of artificial intelligence

AI IN ACCOUNTS RECEIVABLE IN 2024

Time to get serious about Al. The technology has bright promise in all sorts of applications.

BY SARA FAIED PHELPS

Sara Faied Phelps is vice president, payment operations, at InvoiceCloud



GIVEN THE EXPONENTIAL growth of adoption for artificial intelligence over the last 12 months, it's only natural that leaders across industries are eager to map out how they might use (or continue to use) AI in 2024.

Though the electronic bill payment and presentment (EBPP) industry must exercise particular prudence in how it approaches any new tech, leaders in the space are as anxious as anyone to put this exciting new technology through its paces and discover how it can benefit the payments sector. Based on my 21 years working in payments, I think there are three areas where we'll almost certainly see applications (or continued applications) of AI in 2024: reconciliation, underwriting, and fraud detection.

RECONCILIATION

Reconciliation and invoice-matching are obviously core undertakings in accounts receivable. They are both hugely important and hugely timeconsuming. AI's greatest strength today is automating repetitive, laborintensive tasks just like these, reducing to mere seconds what otherwise would be several person-hours. Reconciliation is ripe for this kind of overhaul. Furthermore, using artificial intelligence to automate repetitive tasks like these reduces the risk of human error that can result from fatigue or even simple boredom, and frees up time for humans to work on tasks that require greater discernment.

In fact, I'd argue that one of the main reasons reconciliation is an excellent candidate for artificial intelligence is the fact that it doesn't actually require much, well, intelligence. Reconciliation gets a bad rap for being tedious, but it isn't actually very difficult. The actual processes of reconciliation are relatively straightforward, if repetitive.

Where the issues crop up, and where human intelligence remains crucial, is in identifying discrepancies and probing those differences to iron out errors. So while I'm optimistic when it comes to leveraging AI in reconciliation, I expect that human oversight will continue to be necessary at least through 2024, if not quite a bit longer.

UNDERWRITING

AI's capacity for lightning-fast data analysis could be extremely valuable in some of the fundamental elements of underwriting, a process that traditionally sees underwriters individually parsing information to establish a solid risk assessment. Most straightforwardly, artificial intelligence can take on a slew of risk-assessment tasks. Its patternrecognition capacities make it a great candidate for extrapolating trends from data concerning payment behavior and history.

This doesn't eliminate the need for a human touch. On the contrary, AI's pattern recognition would free up time and space for people to concern themselves with that which deviates from the pattern. Some anomalies in historical patterns are evidence that suggests risky behavior, but some are simply exceptional events that all people encounter at one point or another.

Human underwriters will be able to focus on these events and apply

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877-231-6609 www.signapay.com their common sense and situational understanding to better understand their significance—something AI is not capable of doing.

Beyond that, AI also has the capacity to add nuance and dimension to the process of credit scoring. Where today, we rely on analyzing historical data and behavior to determine a credit score, AI will be able to take into account not just historical, but also real-time data—including up-to-the-minute behaviors and market status.

This adds dimension (and accuracy) to any credit score, but it also benefits those with little or no credit history. By including live data, the depth of information available to predict payment behavior is enhanced. AI can make all underwriting activities more dynamic and agile, empowering real-time adaptation to changing financial environments.

FRAUD DETECTION

Pattern recognition will probably always be computing's greatest strength, and the algorithmic capacity for recognizing patterns has more than outpaced that of a human. This makes AI a potentially invaluable tool for fraud detection, as it is able pick up on even the most minute anomalies among enormous swaths of transaction data—and do it in real time.

Given how self-evidently logical it is to leverage AI this way, it's no surprise that, in fact, this kind of fraud-detection AI already exists. I anticipate seeing more and more tools crop up, and their use proliferate exponentially, in the coming year.

I think anyone working in the electronic bill-payment and process-



ing space would agree that reliable, robust fraud protection is intrinsic to the integrity of any accountsreceivable practice. That's why I'd say it behooves us as a profession to consider any and all tools that enhance it. It's part of the higher standard we're held to across the industry, and protecting our customers has to remain our priority.

In my two decades' working in the payments space, I've seen waves of new tools introduced into the industry—with varying degrees of success. I'm of the opinion that, in general, all industries, including EBPP, should keep an open mind and a healthy optimism when it comes to novel technology. So I look forward to seeing the innovative ways accountsreceivable leaders will leverage AI to better serve customers.

That said, no matter how well we're able to automate many of the tasks and operations involved in EBPP, there will always be a need for smart, dedicated people. No matter how much it may seem like accounts receivable is a hard science, there is an undeniably human element to what we do.

Payments support access to the goods and services people rely on every day. The sector will always require humans not only to monitor AI models and refine them in compliance with evolving regulatory standards, but to maintain humanity in what is a human industry.



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