VOLUME SIXTEEN, NUMBER FOUR • DIGITAL TRANSACTIONS.NET • APRIL 2019

DIGITAL TRANSACTIONS

Trends in the Electronic Exchange of Value

CHECKOUT RE-IMAGINED

Amazon Go has triggered a cashierless revolution. But merchants are finding their own ways to cashier the checkout.

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+ Prime Time for Transactional Credit
+ Why the ACH Is Hot. Yes, the ACH
+ Lyft Wants to Lower Card Costs

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Cover Illustration: Shutterstock.com

Digital Transactions (USPS 024-247) is published monthly by Boland Hill Media LLC, 800 Roosevelt Road, Building B, Suite 212, Glen Ellyn, IL, 60137. Periodicals Postage Paid at Glen Ellyn, IL, and at additional mailing offices. POSTMASTER: Send address changes to Digital Transactions, P.O. Box 493, Northbrook, IL 60065-3553.

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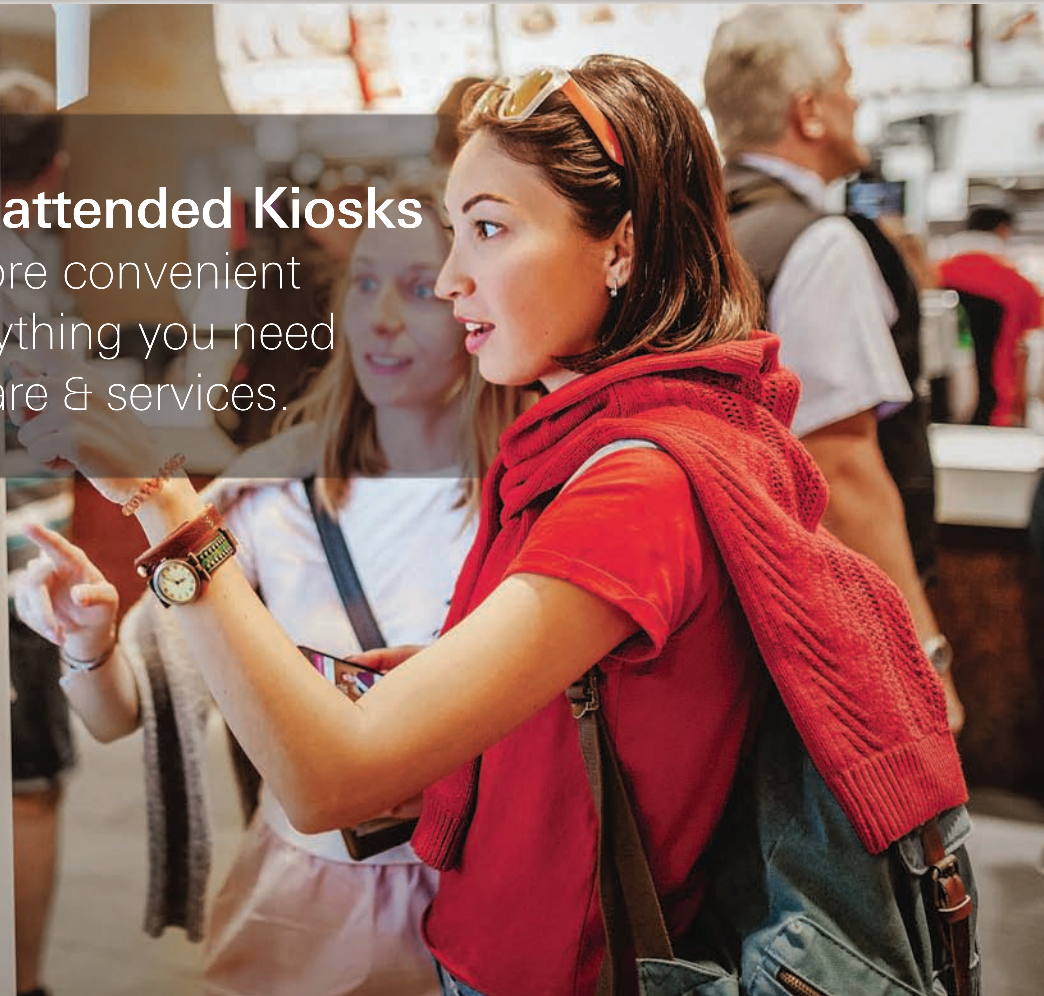

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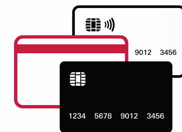

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the gimlet eye

OUR NEW LOOK

YES, THE MAGAZINE YOU ARE HOLDING IN YOUR HANDS is indeed *Digital Transactions.* I don't blame you, though, if you thought you had grabbed the wrong magazine. After all, we've had the same look since our first issue rolled off the press in January 2004. So anyone who has subscribed since then has seen the same design issue after issue for fully 15 years.

Well, with this April 2019 issue, we decided it was time for a makeover. We began planning for this several months ago, working with the editors and our intrepid art director, Jason Smith, who captained the effort from the start. Our objective all along was to create a design that retains the trust you have placed in *Digital Transactions* for years while also pointing to a fresher way of navigating the book and taking in its contents.

All the familiar departments are still here, including this one, as well as the thorough reporting and incisive writing you've come to expect over the years. Electronic payments is a fast-changing, often complex, business, and we pride ourselves on helping our readers sort out the trends.

But in designing this fresh look we have also sought to create a clearer, more contemporary aesthetic that, page to page, guides the reader from topic to topic and from department to department. This objective led us, for example, to a color-coding scheme by department and a bolder look for charts that we think presents data more clearly and with more force.

Why monkey with a successful publication? Well, just as markets like payments change over time, so too does the time readers have. As that time shrinks, we want to present important trends and information in a way that can be more rapidly comprehended—while presenting our content in an inviting environment for analysis and data.

That was our objective. Whether we have met it is something only you can determine. It's no secret that print publications are increasingly going digital, leaving behind paper pages as if they were remnants of a lost era. We, too, have long since provided our reporting online, but we also think print presentation is something worth preserving. We're willing to bet you agree, and that there are more of you out there than the digerati will admit to.

But we want to make that presentation something worth spending time with—something you can easily learn useful things from. We think we've been doing that for these last 15 years. But now we think we're doing it better. Do you agree? Let me know what you think of our new look. My email address is in my signature line below.

John Stewart, Editor | john@digitaltransactions.net

APRIL 2019 • VOL. 16, NO. 4

DIGITAL TRANSACTIONS
Trends in the Electronic Exchange of Value

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Digital Transactions, Digital Transactions News, and DigitalTransactions.net are publications of Boland Hill Media LLC, 800 Roosevelt Road, Suite B212, Glen Ellyn, IL 60137

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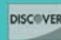

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THE PAYMENTS M&A PARTY JUST GOT WILDER

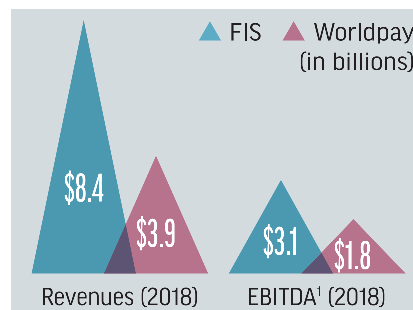
THIS ONE WASN'T HARD TO PREDICT. Observers said Fiserv Inc.'s $22 billion bid for mega-processor First Data Corp. in January would trigger a wave of mergers in the payments industry—and sure enough, along came Fidelity National Information Services Inc. (FIS) on March 18 with a $43-billion cash-and-stock deal to acquire Worldpay Inc.

The biggest surprise was who paired up. Speculation had it that Total System Services Inc. (TSYS) might be the likely partner for FIS as it sought to bulk up in merchant processing and fast-growing tech niches, as its arch-rival Fiserv is doing with First Data.

And Worldpay isn't even done melding its two predecessor companies together after their January 2018 merger: Cincinnati-based Vantiv Inc. as the acquirer and London-based Worldpay plc, with the combined entity taking the Worldpay name.

Payments analysts and researchers say there is probably more merger-and-acquisition activity to come.

"Do I think another one is coming in the future?" asks Jared Drieling, senior director of business intelligence at Omaha, Neb.-based payments consulting firm The Strawhecker Group. "Of course."



COMBINED
Relationships with 14,000 banks/credit unions and 1,000 technology partners; 3,000 sales associates and relationship managers.

1. Earnings before interest, taxes, depreciation and amortization. Source: FIS, Worldpay

The bosses at FIS and Worldpay, however, took pains during a March 18 conference call with analysts to stress the decision to merge was based on industrywide technology trends rather than on any need to react to the pending linkup of Fiserv, a keen rival of FIS, and First Data, a potent competitor to Worldpay.

"This is purely a strategic combination," FIS chief executive Gary Norcross said. "We can't speak to what other combinations are occurring in the industry. We want to make sure we have scale to compete not only now but in the future."

Worldpay's Charles Drucker echoed Norcross's stress on the need for heft to develop and build out innovation, rather than a compulsion to counter competitors' moves.

"This [deal] is all about an offensive deal and going to where the growth is," he said during the call.

The FIS-Worldpay combo will create a processing behemoth that will compete globally across a sweeping range of payments businesses, including merchant acquiring, e-commerce, faster payments, and core processing.

Upon closing, which the companies expect in 2019's second half, the combined entity will be based in Jacksonville, Fla., FIS's headquarters city, and will boast more than $12 billion in revenue, based on 2018 numbers for both FIS and Worldpay. Norcross, FIS's chairman, CEO, and president will serve in the same roles at the new FIS. Drucker, Worldpay's executive chairman and CEO, will serve as executive vice chairman.

The deal comes as the payments industry strives to keep up with technological transformation in merchant acquiring while seeking new revenue streams in e-commerce,

mobile payments, and real-time settlement, and from partnerships with software providers.

To be sure, if the deal clears shareholder and regulatory hurdles, it will create a powerhouse in a wide range of established and developing payments markets. FIS not only competes with Fiserv in core processing for banks but also, like Fiserv, operates a major debit card network, NYCE. It also handles card-issuing duties on behalf of bank clients and processes real-time payments in 19 countries. Worldpay brings strengths as a major acquiring processor, including in e-commerce.

"Back to the future as the industry stitches issuers and acquirers back together," says Patricia Hewitt, principal at Savannah, Ga.-based PG Research & Advisory Services. "An important element of this is also having a global presence as geographic boundaries continue to blur."

Even so, some observers were taken aback by the former Vantiv's decision to sell, especially before it had fully digested its British partner, and FIS's choice of target.

"We are surprised that the company is choosing to sell now ahead of realizing the full cost (about half left) and revenue synergies ($100 [million] run-rate exiting 2020) from the Vantiv/Worldpay combination. We would have expected other players in the space like [TSYS] to have been more strategically compelling for FIS given their card-issuer processing business," said a research note issued by investment firm Keefe, Bruyette & Woods.

But the trend is for processors with big but slower-growing services for credit and debit card issuers to move into the faster-growing merchant-acquiring space, The Strawhecker Group's Drieling says. "We're kind of seeing the flip of these other [issuer] processors in terms of getting into the acquiring community," says Drieling.

TSYS is still skewed more toward issuer processing, though it does have a big merchant-processing division, much of which originated with First National Bank of Omaha, Drieling says. Still, "they're not in that same realm as a First Data" on the merchant side, he says.

Worldpay's bigger presence in acquiring made it more of an attractive takeover target than TSYS, echoes Larry Berlin, a senior vice president at Chicago-based First Analysis Securities Corp. Thus, while some people think FIS's acquisition of Worldpay is a surprise, "when you think about it, it's not," he tells *Digital Transactions.*

Besides TSYS, the roster of remaining sizable eligible buyers—or sellers—includes Global Payments Inc., U.S. Bancorp, which owns the big merchant acquirer Elavon Inc., and Jack Henry & Associates Inc.

Minneapolis-based U.S. Bancorp's next move, if any, could be interesting. It is one of the very few big banks with a heavy direct investment in payment technology—JPMorgan Chase & Co. has pursued a similar strategy—and gets about a fifth of its revenues through payment services. Thus, it couldn't be ruled out as a buyer seeking to enhance those services. At the same time, now might be the time to put a "for sale" sign on Elavon.

"I would not be surprised to see U.S. Bancorp shopping Elavon, as it is now a good market for selling acquirers," says Aaron McPherson, vice president of research at Maynard, Mass.-based Mercator Advisory Group Inc., in an email. A U.S. Bancorp spokesperson declined comment.

The same could be said for Atlanta-based merchant processor

Global Payments, which has been quiet since the Fiserv-First Data merger was announced. Global Payments has been a pioneer in the move by merchant processors into the independent software vendor market, having made several major acquisitions in a tech-oriented niche many processor executives covet.

And Monett, Mo.-based Jack Henry, which focuses mostly on small financial institutions, might find its business enhanced by the merger wave, should it remain independent.

"Small to medium-size issuers and merchants are weary of the large consolidations because they feel like they get lost in the fray," Krista Tedder, director of payments at Pleasanton, Calif.-based Javelin Strategy & Research, says in an email. "Smaller processors, group service providers, and gateways could come away as the winners in the payment-world consolidation."

—John Stewart, with additional reporting by Jim Daly and Kevin Woodward

CAN BANKS DO MORE THAN STALL SQUARE'S BANK APPLICATION?

Other commercial companies have failed in their efforts to establish an industrial loan corporation, a form of bank, but much to banks' distress, Square Inc. very well could prove to be the exception.

"Fighting the ILC designation is a good way for the banks to slow a dangerous competitor, but it's likely to be a stall tactic," says Rick Oglesby, principal at AZ Payments Group LLC, a Mesa, Ariz.-based payments consultancy, and a close observer of Square.

The Independent Community Bankers Association is mounting an effort it hopes will do more than delay efforts not only by Square but by other fintechs to establish banks.

The Washington, D.C-based trade group of small banks in March released a white paper decrying the availability of banking licenses for business entities controlled by nonbanks. The document asks the Federal Deposit Insurance Corp. to impose a moratorium on deposit insurance for so-called industrial loan companies and argues Congress should "close the ILC loophole permanently" by banning nonbank applicants, says a statement released by the group.

The ICBA says industrial banks allow nonbanks to operate financial institutions without the regulation and supervision imposed on banks.

"FDIC approval of new ILC deposit-insurance applications would put the federal safety net, and ultimately the American taxpayer, at risk," said Rebeca Romero Rainey, president and chief executive of the group, in a statement.

San Francisco-based Square in December renewed its application with the Utah Department of Financial Institutions for an industrial-bank charter. It had originally filed in September 2017, only to withdraw the application 10 months later. Square also has an application pending with the FDIC.

Still, Square has been circumspect about its banking plans. In answer to an analyst's query about the matter during its latest earnings call, chief executive Jack Dorsey would say only

MONTHLY MERCHANT METRIC

Total Gross Processing Revenue, in Percent

Sum of total discount, total transaction fee revenue, and total other fee revenue divided by total volume

Quarter	Percent
Q4 2017	2.538%
Q1 2018	2.534%
Q2 2018	2.543%
Q3 2018	2.541%
Q4 2018	2.534%

Note: This is sourced from The Strawhecker Group's merchant data warehouse of over 3 million merchants in the U.S. market. The ability to understand this data is important as small and medium-size businesses (SMBs) and the payments providers that serve them are key drivers of the economy. All data are for SMB merchants defined as merchants with less than $5 million in annual card volume.

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that "we look forward to more direct relationships with regulators."

Square, which offers products like Square Capital that provide financing to small-business clients of its payments services, sees the bank as a means by which it can expand those offerings.

But the ICBA has more than Square's application in its sights. Its recent release also names similar applications from Social Finance Inc., a personal-finance company, and Nelnet Inc., a student-loan administrator. (Nelnet withdrew its industrial-bank application in September.)

Campaigns like that of the ICBA have succeeded in the past, most notably in the early 2000s when Walmart Inc. sought to operate a bank to process its credit card receipts. But while that effort forced the big retailer to withdraw, observers now think the landscape has changed and favors companies like Square.

"I would argue that Square is not Walmart," says Patricia Hewitt, principal at Savannah, Ga.-based payments consultancy PG Research & Advisory Services. "Square is a financial-services company and it makes sense to pull them into the fold, so to speak, which would level the playing field. They are also a publicly traded company and are regulated by the [U.S. Securities and Exchange Commission]."

—John Stewart

KROGER POKES VISA IN THE EYE AGAIN

The nation's largest stand-alone supermarket chain is expanding its confrontation with the largest payment card network.

The Kroger Co. in early March announced it will stop accepting Visa Inc. credit cards at its Smith's Food & Drug Stores chain, which operates 134 stores in seven Western states. The ban was set to take effect April 3.

The move is the latest salvo by Cincinnati-based Kroger in its long-running feud with the card networks and with Visa specifically. It also steps up the pressure on Visa after Kroger last August banned the network's credit cards from one of its much smaller chains, Foods Co., which has 21 supermarkets and five gas stations in California. Kroger owns a number of retail brands with a total of 2,800 stores nationwide.

Kroger did not rule out the possibility of further actions. "While no other Kroger banners are presently affected by this announcement, Kroger continues to explore options to reduce the cost of accepting credit cards in order to keep prices low for customers," the company said in its announcement.

Kroger said Smith's will continue to accept other credit and charge cards, including Mastercard, American Express, and Discover, as well as Visa and Mastercard debit cards, both with and without PINs.

Still, in its efforts to reduce its acceptance costs, Kroger has clearly singled out Visa as a target.

"Visa has been misusing its position and charging retailers excessive fees for a long time," said Mike Schlotman, chief financial officer at Kroger, in a statement. "They conceal from customers what Visa and its banks charge retailers to accept Visa credit cards. At Smith's, Visa's credit card fees are higher than any other credit card brand that we accept. Visa's excessive fees and unfairness cannot continue to go unchecked."

Kroger did not respond to a query from *Digital Transactions* regarding its decision to focus its ban on Visa credit cards.

Smith's Food & Drugs: Visa banned at 134 stores effective April 3.

"It is unfair and disappointing that Kroger is putting shoppers in the middle of a business dispute," said a Visa spokesperson. "We have put forward a number of solutions to allow our cardholders to continue using their preferred Visa credit cards at Foods Co. and Smith's without Kroger-imposed restrictions, and we continue to work toward a resolution."

Visa and Kroger have long been at odds. Kroger sued Visa in 2016 alleging the card network interfered with its lawful routing choice

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Kroger has taken other steps to control its payments destiny, including the February introduction of a mobile-payments service, Kroger Pay, in Columbus, Ohio, with plans for national expansion later this year ("Kroger Takes the Proprietary Route in Mobile Payments," March).

Kroger's latest tactic to selectively ban Visa follows a pattern laid down by Walmart Inc., whose Canadian division in 2016 stopped taking Visa credit cards at a few locations in Thunder Bay, Ontario, because of what the company argued were excessive acceptance costs. Walmart later expanded the ban to 16 stores in Manitoba before the two combatants reached an agreement in January 2017.

Merchants' focus on acceptance costs has heightened in recent years as network fees have increased. A recent study conducted by CMSPI, a United Kingdom-based research firm, on behalf of the retail industry showed fees offset more than half of the savings merchants gain from controls on debit card interchange imposed by the Durbin Amendment to the 2010 Dodd-Frank Act.

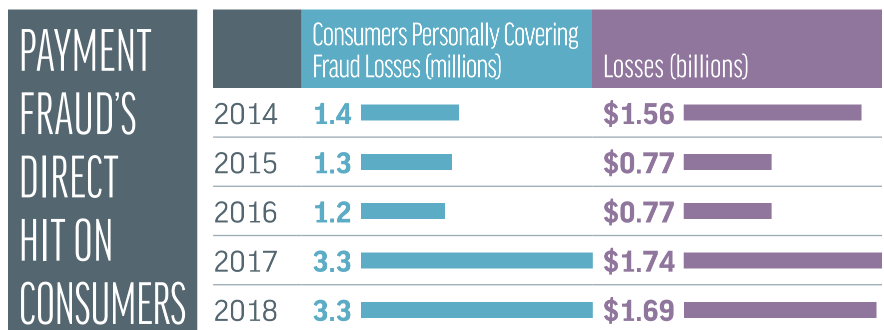
—John Stewart

PAYMENT FRAUD HITS FEWER CONSUMERS, BUT OUT-OF-POCKET COSTS BITE

Good news on the fraud front: fewer consumers fell victim to payment fraud in 2018. The bad news: fraud victims picked up more of the financial losses, according to Javelin Strategy & Research's latest annual identity-fraud study.

Based on the results of its 16th annual identity-fraud study, Javelin estimates payment-related fraud affected 14.4 million consumers last year, down 14% from the record 16.7 million in 2017. And thanks to the millions of new EMV chip cards in the U.S. that are difficult to counterfeit, fraud losses on existing credit and debit cards fell 21% to $6.4 billion from 2017's $8.1 billion.

Despite that, Javelin estimates 3.3 million fraud victims bore some liability for fraud in 2018, nearly three times as many as in 2016. And, while off slightly from 2017, victims' out-of-pocket fraud costs have more than doubled in two years to $1.7 billion (chart).



Source: Javelin Strategy & Research

Government regulations and industry policies protect consumers from most fraud losses on payment cards, but less so with newer types of identity fraud. New-account fraud losses increased to $3.4 billion last year from $3 billion in 2017, Javelin estimates.

Losses also rose from unconventional account targets such as mortgages, student loans, and auto loans. Plus, fraudsters increasingly are targeting loyalty and rewards programs and even retirement accounts, Javelin reported in March.

"While the decrease in card fraud rates is undoubtedly good news for victims, fraudsters have turned their attention to opening and taking over accounts," Al Pascual, senior vice president, research director and head of Pleasanton, Calif.-based Javelin's fraud and security unit, said in a news release.

Javelin says fraudsters are growing more adept at overcoming authentication challenges. Takeovers of mobile-phone accounts jumped 79% to affect nearly 680,000 victims last year compared with 380,000 in 2017.

Javelin says it has surveyed 79,000 consumers since the fraud study began in 2003. The study's lead sponsor this year was processor Fidelity National Information Services Inc. (FIS). Other sponsors included credit-reporting agency Experian and fraud-mitigation services provider Giact Systems LLC. DT

—Jim Daly

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THE USE AND ABUSE OF AI

BY GIDEON SAMID
gideon@bitmint.com

SOME YEARS AGO, I hired a young chap who right away lifted a heavy administrative burden off my shoulders. In a short while, he also came up with some good design ideas, and within a year he was correcting my coding. With a heavy heart, I realized I had unwittingly hired my own replacement. This is the case with artificial intelligence (AI) today.

Much as I should have hired my brilliant assistant even if I suspected he would threaten my cushy place in the company, so we ought to negotiate our future with AI present everywhere, risky as it may be.

The bane of small payments is that when you dispute a $6.75 charge on your account, it is cheaper for the bank to remove the charge than to place the item in the dispute-resolution protocol, especially to the extent that live people are involved (even if they are working from a low-wage country). But if this problem can be negotiated with a serene, human-like voice conducting a human-like dialogue, with beyond-human patience—and without the cost of salary and benefits—then by all means!

Alas, big-data technology and neural networks go farther. Artificial-intelligence salespersons can outsmart a used-car salesman, and outright artificial-intelligence fraud isn't far behind. Innocent victims have been known to carry on extensive email correspondence with no human on the other side, only a malicious AI program.

Some malicious AI packages come as orphans. When they are caught, whom do you prosecute?

For years, we have had cause to regret the lack of foresight that led us to design the Internet with security as an afterthought, and now here we go again. At every industry conference, speakers salivate about the rosy future of AI payments, with no mention of security as a top priority. Scenarios involving cost savings, speed, and convenience are charted with great enthusiasm, but scenarios involving potential abuse go unnoticed—except by the schemers.

The advantages of AI payments, including their contribution to reduced friction, are dramatic. But you can expect headline-grabbing AI fraud tales in the near future.

The best scenario for AI involves handling routine payments. But we should promote this application by equipping the public with "AI shadows" of themselves, also known as avatars.

Let's say you meet your banker for lunch. The two of you iterate your respective positions and concerns, and then send your AI and the bank's AI to negotiate the pesky details of the transactions. You will task your avatar to purchase the TV screen you desire, letting the software check the various stores, join any shoppers' groups, and otherwise optimize the deal on your behalf. We already see investment AI, for example, and Internet of Things AI, as well.

By the way, whenever you give payment authority to a non-human entity, you'd better entrust it with a limited amount of cash rather than with access to an account.

Here I will add a subtle point that is quite difficult to explain: AI creatures may be much smarter than humans as measured by intelligence tests, but AI does not have the quintessential human attribute of common sense or reasonability.

Yes, advanced AI digs into raw data, discerns patterns, and forms its own "rules." It deals with much more data than any human being can ever hope to handle, and its conclusions are so often much better than those of a human. But to the extent that a situation is unprecedented, AI acts randomly, which means stupidly, at least for half the cases.

With payments AI, proceed with caution. Have plans to disengage. And never, ever design a payments system too complicated for humans to take over and manage without reliance on AI. DT

MAY 2019

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POINT OF SALE CREDIT TAKES OFF

Neither a borrower nor a lender be, counseled Shakespeare's Polonius. He never met today's raft of tech-based creditors serving merchants eager to pump out sales.

BY JOHN STEWART

STORES HAVE BEEN OFFERING CREDIT TO CUSTOMERS for at least a century. But the latest twist is to offer credit while the customer is at the cash register or in front of a checkout screen as a further inducement to make or add to a purchase.

And lately, the mobile phone is making it easier than ever to extend a loan as part of a sale, opening the vast market of physical stores to a new breed of transactional-credit firms.

Now companies that jumped into this business only a few years ago are filling a void left by credit card issuers and conventional lenders. And they're increasingly moving into bigger merchants. Just ask Affirm Inc., a fast-growing 7-year-old lender that landed Walmart Inc. in February.

The significance of bagging the country's biggest merchant for both in-store and online sales wasn't lost on the industry.

"It's a testament to our growth that we're able to sustain a merchant of that size," says Elizabeth Allin, vice president of communications for the San Francisco-based company whose other clients include shoe merchant Cole Haan, online-travel impresarios Orbitz and Expedia, fitness-equipment seller Peloton, and furniture retailer Wayfair.

'THEY HAVE NO IDEA'

So-called fintechs like Affirm, Klarna, GreenSky, and PayPal Holdings Inc.'s PayPal Credit are carving up a credit-hungry market. Fintechs accounted for just 5% of U.S. personal lending in 2013, according to TransUnion, the credit-reporting company (chart, page 18). Five years later, they controlled 38%, by far the biggest share in a market that includes banks, credit unions, and traditional finance companies.

Of course, banks aren't always shut out when an upstart nonbank butts in. Affirm's loans, for example, are funded by Cross River Bank Inc. in Teaneck, N.J. And credit card issuers aren't taking the challenge lying down. "Banks are already responding with an installment-loan option on credit cards," says Leslie Parrish, who follows the business as an analyst at Boston-based financial-services consultancy Aite Group LLC. She cites Chase and Citi as examples.

Some observers caution that, with the exception of PayPal Credit, none

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of this new breed of fintech lender has had to weather a deep downturn in the economy. The last time that happened, in 2008-09, these firms didn't exist. "They have no idea" what could be coming, cautions Parrish's compatriot Thad Peterson, who last summer released an Aite research report on transactional credit.

But what merchants are hoping for before that happens is a gusher of transactions, and bigger average orders, fueled by this burgeoning form of credit. Experts agree the loans are consumer-friendly—and quickly evolving from promotional offers to actual installment loans that can stretch over three to nine months.

Plus, they're fast, private, and easy to set up. While you're standing in front of the sofa and imagining how it will look in your family room, you can check on your smart phone to see whether you can qualify for a loan, and get approved before you find the salesperson to pay and check out.

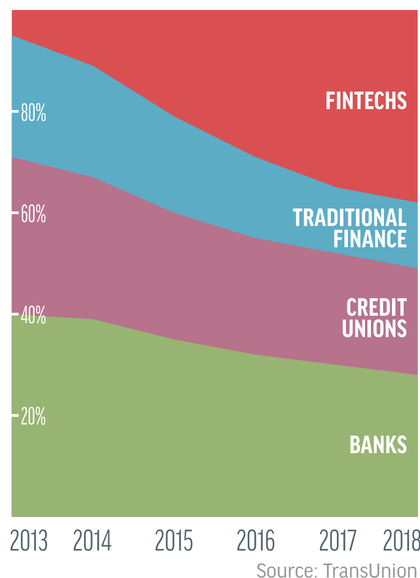
As the option penetrates more stores and Web sites, the potential for gushers of sales becomes more real. "It hasn't necessarily increased the number of transactions yet, but as consumer awareness grows, it has the potential to increase transaction volume in the future," says Parrish.

TARGETING TRANSACTORS

So much so, in fact, that some entrepreneurs are looking to deploy their technology on behalf of financial institutions that don't want to be left out. One tactic that appeals to them is to use transactional credit to start earning interest income from so-called transactors—credit card holders that use the card but never revolve.

FINTECHS' FAST GROWTH

(Share of U.S. Personal Loan Balances)



Source: TransUnion

That's a market San Francisco-based MyGini Inc. is hoping to serve. The 3-year-old company's technology works with both physical and online merchants and allows banks to extend credit offers on cardholders' phones after they have checked out with a Visa or Mastercard.

The system should appeal to retailers, too, says Mehmet Sezgin, the former Mastercard Inc. and BBVA executive who started MyGini.

"Merchants are coming under even more pressure to sell," he says. "We see that every day with stores closing down. That's not going to go away." Only 56% of startup businesses survive into their sixth year, according to numbers from the Bureau of Labor Statistics (chart, page 19).

Sezgin hopes to have a pilot running this summer. "We are reaching out to banks through Visa and Mastercard," he says. But he concedes it will take time to sign up banks. For one thing, the alerts the service relies on must be approved by cardholders as well as by the networks.

But as this market attracts more startups, more established players are driving hard for market share. The granddaddy in this business is PayPal Credit, which started out 19 years ago as BillMeLater. It was acquired by PayPal in 2008 and ultimately renamed. But one thing hasn't changed: it still focuses on e-commerce.

"I won't say never, but we will innovate," says Susan Schmidt, vice president of U.S consumer credit at PayPal Credit, when asked about moving into the physical point of sale.

PayPal Credit will be hard for startups to displace. As the longest-established of the fintech providers, it has had time to build up a base of loyal users. While Schmidt won't reveal numbers, she says fully one-third of its active customers use PayPal Credit exclusively. Another plus is its survival in that last recession, which was perhaps the deepest since the 1930s.

"It's a huge advantage. We've built underwriting muscle," Schmidt says. Looking at the bevy of rivals that have sprung up in the past 10 years, she issues a none-too-subtle warning. "We will see what happens when we go through the next cycle, which is inevitable."

The offer is very simple—six months at no interest if paid in full. But PayPal has also added two cobranded Mastercards for good measure. And it doesn't see any need for now to make changes in that basic proposition. "Just the size of the market is a positive thing," says Schmidt. "Our customers are telling us they want and need transactional financing."

MORE IN-STORE DEALS

But in this business, nothing caught the attention of payments professionals

more than Affirm's deal with Walmart. That deal seems to have put transactional credit on the map as a big-time opportunity. "We're exceptionally proud of it," says Affirm's Allin.

Not that consumers will be able finance just anything the big retailer sells. Bananas, for example. "There's a list of things we're not appropriate for," Allin says. But a new lawn mower gets a yes. While Affirm usually works with a virtual card on the user's phone, the service will work at Walmart with barcodes on readers the giant chain has already installed for Walmart Pay. At the point of sale, "you can do everything on your phone," says Allin.

More such deals could be coming. Walmart is the latest signup in an in-store campaign Affirm launched a year ago with Peloton and others.

BUSINESS SURVIVAL RATES

(Portion that survive after indicated number of years)

Source: Bureau of Labor Statistics

"It will increase," Allin promises.

Affirm extends credit at rates ranging from zero to 30%, with an average of 17%. Payback is expected in anywhere from six to 12 months. "It's impossible to revolve," Allin says. The payoff for the merchant is what she describes as a 20% lift in conversions—people who buy who wouldn't have otherwise.

Transactional credit competes in a market that includes other unsecured loan products like credit cards. While it may prove to be a boon for merchant sales, it will likely rise and fall, and not necessarily in lockstep with its unsecured cousins in what can be a volatile market.

"For the next 12 to 24 months, we'll see growth [in unsecured credit]," says Aite's Parrish. "The question is, will it be growth in credit card outstandings or in [transactional credit]." DT

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BEHIND THE ACH'S SIZZLING GROWTH

The big untold story in payments is how the lumbering ACH network has been posting impressive growth rates quarter after quarter. Is there more than same-day settlement to keep the party going?

BY **JIM DALY**

LET'S FACE IT, generating anything beyond low-single-digit growth rates can be a challenge when you're a 45-year-old payment network that moves 23 billion transactions worth $51 trillion in a single year.

So the payments industry took notice when NACHA, which oversees the automated clearing house network, recently reported its 2018 numbers. Total transaction volume rose 7%, the highest growth rate in a decade (chart, page 22). Transactions have grown by 1 billion annually for the past four years.

What's more, the dollar value of 2018's payments rose 9.5% on an increase of more than $1 trillion—the sixth straight year of trillion-plus increases.

"ACH remains a critical payment type in the United States," says Elena Whisler, head of global product management for open payments at Jacksonville, Fla.-based processor Fidelity National Information Services Inc. (FIS).

True, the ACH network links virtually every U.S. financial institution, but its ability to generate historically high growth lately surprises even long-time observers. And the party is continuing. Herndon, Va.-based NACHA says volume in February for the first time exceeded 100 million payments per banking day, up 7% from February 2018.

"When we came into 2019, we were gaining some momentum," says Jane Larimer, NACHA's chief operating officer.

JAMMED WINDOW

The ACH indeed seems to have plenty of momentum lately. But the Federal Reserve put a damper on the high spirits in mid-March when it told NACHA that it wouldn't meet the planned schedule for implementing a third, late-afternoon daily window for financial institutions to submit ACH transactions.

This third window is an important component of NACHA's long-term effort to institute same-day clearing and settlements. Now it's scheduled to go live in March 2021 instead of the originally planned September 2020 (box, page 24).

Same-day ACH volumes already are booming without the third window, so the delay's ultimate effect is unknown. Meanwhile, the ACH continues to sail along with some strong tail winds. Besides same-day ACH, these include the boom in e-commerce and electronic person-to-person payments as part of the ongoing transformation of U.S. consumer payments away from cash and checks.

Then there is the corresponding but slower conversion of business-to-business payments and an anticipated, parallel transformation of health-care payments, currently a mishmash of outmoded processes.

These emerging markets all lie in wait for NACHA—along with its competitors—to exploit. But researcher Tony Hayes, a partner and global head of the payments unit at New York City-based Oliver Wyman, commends NACHA for transitioning well into the world of electronic payments beyond direct deposits, its original franchise, as consumers' check usage has plummeted in the past two decades.

He notes that ARC, the ACH code for paper checks converted at lockboxes into electronic transactions for bill payments, hit its highwater mark of about 3.8 billion transactions way back in the early 2000s. It then began to dwindle along with the volume of paper checks. That hurt because ARC was a bellwether consumer code for the ACH.

"Every year since then it's gone down by 200 million transactions," says Hayes. "To NACHA's credit, they recognized, 'what else could we do? What should we do to add value to the overall payment system?'"

What NACHA came up with was the WEB code, the debit version of which handles e-commerce payments drawing on demand-deposit accounts while the credit version takes care of person-to-person payments. WEB debit transactions rose 14% to 5.9 billion last year, with a value of $2.9 trillion. WEB is now the ACH's second-largest source of transactions, after direct deposits.

"Clearly, the e-commerce business is exploding," says Hayes. "The rate of growth more than offsets the decline in check."

While only a fraction of the volume of WEB debits, WEB credits are growing even faster as P2P services such as PayPal Holdings Inc.'s Venmo and the bank-sponsored Zelle gain rapid adoption, displacing the need for consumers to settle personal debts with checks or cash. WEB credit transactions totaled 128.7 million in 2018, up 32% from 2017's 97.4 million. The value of the transactions grew 30% to $209.7 billion.

"There are increasingly acceptable alternatives to the check," says John Leekley, chief executive of RemoteDepositCapture.com, an Alpharetta, Ga.-based research and news service focused on the remote-deposit and checking markets.

HOT TOPIC

Of course, same-day ACH is the hot topic nowadays. Same-day settlement is critical for NACHA. It represents the organization's effort to meet demand for faster service as everyone from fintech startups to Visa and Mastercard to PayPal and others roll out services that enable payees to get their money faster. The ACH has been grounded in batch settlements that take a day or more to clear.

Same-day ACH credit transactions debuted in September 2016, followed by same-day debits a year later. In 2018, same-day transaction volume rose 137% year-over-year to 177.9 million and the value increased 83% to $159.9 billion.

Last year was the first with complete same-day service. Many banks and credit unions held off on enabling

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same-day ACH until the full monty was available, according to Larimer.

"What we relearned was that many financial institutions were waiting for both credits and debits [to be] enabled," she says.

Same-day ACH is likely to continue growing smartly for some time and surely will get a lift when that third window finally opens. But besides the Fed's delay, other challenges are looming. These days, payments executives and researchers are debating what effect the rise of real-time payment systems might have on same-day ACH.

For example, the Fed itself, which operates one of the nation's two ACH switches, is mulling taking a direct role in a real-time system. And the other operator, the bank-owned The Clearing House, already has such a system up and running.

Hayes answers "yes" when asked if real-time payments could take a bite out of NACHA's volumes. With 23 billion payments last year, the ACH can't avoid attracting rivals.

"That's a lot of transactions, other people are eying that," he says.

Faster-payments providers could try to establish footholds in promising growth areas for the ACH, notes consultant Patricia Hewitt of Savannah, Ga.-based PG Research & Advisory Services. "Faster payments may actually make a play at the point of sale," she says.

Others, however, note that not every payment originator needs instant settlement and will be fine with multiple daily but non-real-time options.

"There's a lot of synergies between ACH and real-time payments in terms of financial institutions modernizing" their payment applications, says Whisler of FIS. "I don't necessarily think there's going to be a lot of volume that's going to move from ACH to real-time payments."

NACHA itself has taken a neutral position on whether the Fed should become a real-time payments provider. But Larimer says the Fed should expand the availability of its ACH support services, the Fedwire Funds Service and the National Settlement Service.

"They need to be increasing those hours," she says.

'MORE AGGRESSIVE'

Beyond same-day ACH, B2B payments and the related health-care payments market still represent a fertile area for ACH growth despite the fact that businesses—"corporates" in ACH lingo—already moved more than $30 trillion through the ACH in 2018. B2B transactions totaled 3.6 billion, up more than 9% from 2017.

"Corporates are being a little bit more aggressive in moving away from check," says Larimer.

Vastly more volume awaits conversion. While check use by businesses is declining, the switch to electronic-payment forms hasn't been as fast as it has been among consumers. Reasons include the more complicated nature of business payments and the need for remittance information beyond the pure payment.

One way to capture more growth is to provide greater resources for billers, including support for invoicing and related transaction data that would move along with the payment. In a little-noticed acquisition, NACHA last October bought the non-profit Business Payments Directory Association.

BOOM TIMES FOR THE ACH

	Transactions (billions)	Y-o-Y Change	Value (trillions)	Y-o-Y Change
2018 Total	22.9	6.9%	$51.2	9.5%
Debits	13.4		$17.8	
Credits	9.5		$33.4	

SAME-DAY ACH

	Transactions (millions)	Y-o-Y Change	Value (billions)	Y-o-Y Change
2018 Total:	177.9	137%	$159.9	83%
Debits	79.6		$60.7	
Credits	98.3		$99.2	

SELECTED CATEGORIES, BY TRANSACTIONS

	Transactions	Y-o-Y Change
Direct Deposit	6.8 billion	4.4%
Internet	5.9 billion	14.2%
B2B	3.6 billion	9.4%
P2P	128.7 million	32.2%

Note: Figures exclude on-us volumes. Source: NACHA

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The Roseville, Minn.-based BPDA was formed in 2016 to develop a database, or what it calls a public phone book, of business payees and payee information.

Not long before the acquisition, the BPDA began working with Discover Financial Services on a proof-of-concept platform for a directory built on blockchain technology. The database will allow payers to find the information needed to make payments to their payees electronically.

"It is going to help with onboarding, allowing for straight-through processing, reducing the areas of friction in today's business-to-business payments," Larimer says. "It's really an efficiency for one directory to query another directory saying, 'do you have information on this biller?'"

Larimer expects the project to move into an actual test later this year.

Health-care providers, meanwhile, increasingly are turning to electronics. Health-related payments are included in NACHA's B2B transaction codes.

"Sixty-three percent of medical practices receive claim info electronically, up from 50% five years ago," says Larimer. "I do think that push to move from paper to electronics is having some benefits."

It's not assured that every initiative will work out, but NACHA certainly is better off trying new things than standing still.

"Clearly there have been risks in the past," says Hayes. "There are new risks today. The question is … how well will they evolve now in order to remain relevant for the future?"

Check back in a few years for the answer. DT

SAME-DAY ACH'S THIRD WINDOW WILL OPEN LATER THAN EXPECTED

It's taken years to get same-day ACH to get to where it is now, so what's another six months?

A third daily processing window for same-day clearing and settlement of automated clearing house transactions is now scheduled to go live March 19, 2021, six months later than the originally planned Sept. 18, 2020.

The window is a key component of ACH governing body NACHA's multipronged same-day ACH effort. NACHA says the reason for the delay lies with the Federal Reserve, operator of one of the nation's two ACH switches; bank-owned The Clearing House Payments Co. operates the other.

The original live date depended on NACHA receiving okays from the Fed's Board of Governors by June 30 of this year. The Fed informed NACHA in mid-March that it will be unable to provide needed approvals for changes in its ACH services, including the Fedwire Funds Service and the National Settlement Service, by then. The Fed hasn't yet scheduled a required public-comment period.

"They're not going to be able to meet our timeframe," says NACHA chief operating officer Jane Larimer.

NACHA's 2018 rule for expanding same-day service calls for a six-month delay in such an event.

A Fed spokesperson says by email that "Federal Reserve staff are actively working on a Federal Register notice to seek public comment and, subject to board-member approval, expect to have it out relatively soon."

Once it goes live, the additional window will give financial institutions until 4:45 p.m. Eastern time to submit transactions to the network. Banks, especially those in the Mountain and Pacific time zones, strongly endorsed the change.

It's unclear how much of a setback the window delay represents for same-day ACH. It comes at a time, however, when payments providers of all varieties are trying to speed up their services. On the day news of the delay broke, PayPal Holdings Inc. added a new service called Instant Transfer to bank, with JPMorgan Chase & Co. and The Clearing House as partners.

"In light of today's announcement by PayPal that they're enabling instant money transfer via Chase and TCH, this is bad timing," says consultant Patricia Hewitt of Savannah, Ga.-based PG Research & Advisory Services.

And the Fed itself is mulling whether it should take a direct operational role in a real-time payments system, a system some observers believe could compete with the ACH.

But Larimer expects the delay will have no lasting effects.

"In 2018, there were 178 million same-day transactions, an increase of 137% over 2017," she says by email. "NACHA anticipates little impact to continued adoption and usage of same-day ACH."

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THE AMAZING DISAPPEARING CHECKOUT

Amazon's tech-laden Go stores are disrupting in-store checkout. But as other merchants look to follow suit, it's becoming clear there are lots of ways to get the checkout to check out. **BY PETER LUCAS**

CONSUMERS SO LOATHE WAITING IN LINE AT CHECKOUT that half of all shoppers avoid entering stores with long lines, according to data from RetailCustomerExperience.com, a Web portal for retailers. Additionally, one-third of shoppers who enter a store will leave without buying if they think checkout will take longer than seven minutes.

That's a lot of lost traffic and sales. To reduce friction and speed up service at checkout, retailers are looking at ways to marry more aspects of the e-commerce shopping experience to the physical point of sale.

The strategy, called cashierless checkout, goes way beyond the convenience of tap-and-pay mobile wallets. Amazon.com Inc. is the best-known developer of cashierless technology, but now a growing

number of retailers of varying sizes are experimenting with the idea.

Some chains have for years deployed self-scanning systems, but these still require customers to show a receipt on their way out. Cashierless checkout enables a consumer to walk into a store, scan items into a virtual shopping cart with her phone, pay using her mobile wallet from anywhere in the store, then exit the store without ever stepping into a checkout lane.

Retailers are betting that enabling consumers to completely bypass checkout will create a more delightful in-store shopping experience that increases customer loyalty, frequency of visits, and, of course, sales.

"Two of the biggest sticking points for consumers when it comes to shopping in stores is parking and lines at checkout," says Paul Zaengle, executive vice president, direct-to-consumer for Stance, a San Clemente, Calif.-based based apparel retailer that has rolled out cashierless checkout across its 14 stores. "We can't do anything about making parking more convenient, but we can do something about removing the friction from checkout."

Amazon Go's nonexistent checkout.

'IT'S REVOLUTIONARY'

The list of retailers lining up behind cashierless checkout includes some of the biggest brands in retail, such as Kroger, Macy's, Meijer, Sam's Club, and 7-Eleven in the United States and Tesco in the United Kingdom. But the biggest change agent so far is Amazon.

The king of e-commerce is already making noise with Amazon Go, automated grocery/convenience stores selling pre-packaged foods and beverages that feature no cashiers or checkout lanes.

Amazon Go stores are built from the ground up. Amazon buys a retail space, typically in a high-traffic area, then strips it to the studs. Next, it installs the technology, including cameras and computer-vision software that track a shopper's every move from entry to exit, along with sensors that recognize any item placed in a shopping basket or returned to the shelf.

This process makes it easier to eliminate potential bugs in the system, which increases reliability, since there is no need to integrate with a store's legacy systems.

To shop at an Amazon Go store, a consumer must download the Go app and scan a barcode from the app on her phone's screen upon entering the store. Every time a

1 IN 2
shoppers avoid entering stores with long lines.

1 IN 3
shoppers will leave if they think checkout will take longer than seven minutes.

Source: RetailCustomerExperience.com

shopper places an item in her physical basket, it is recorded in a virtual shopping cart assigned to her upon entering the store.

The cost of each item is captured on an in-store server and a running tally of the shopper's bill is kept. When finished shopping, the consumer exits and her purchase is automatically charged to her Amazon account. Amazon refers to the experience as "Just Walk Out Shopping."

Amazon, which launched the first Amazon Go store in Seattle in 2016 as a beta site for its employees, began opening stores to the public last year. As of March, the e-commerce behemoth had 11 locations in Seattle, San Francisco, and Chicago, and planned to open a store in New York City. Many more are coming: The retailer reportedly intends to open 3,000 stores by 2021.

Amazon, which declined comment for this story, has previously said it spent several years developing the technologies for Amazon Go, some of which are similar to the gear used in driverless cars. Amazon has yet to reveal how much it spent developing the technology.

The stores are relatively small, given the extensive—and expensive—

web of technology needed to make the system work. But with no checkout lanes or need for cashiers, Amazon Go has immense potential to disrupt retail, experts say.

"The Amazon Go experience isn't evolutionary, it's revolutionary, because it changes the way people think about in-store experiences," says John Bruno, vice president of product management at Elastic Path, a Vancouver, British Columbia-based provider of e-commerce applications. "With plans to open up 3,000 stores by 2021, it's safe to say Amazon will have a similar effect on the offline-buyer experience as it has had on the online-buying experience."

Just as eye-popping is the potential transaction volume through its digital wallet that Amazon could rack up, provided it reaches its store-count target. A January research brief by RBC Capital Markets analyst Mark Mahaney estimates that each store generates between $1.1 million and $1.95 million per year.

Figuring an average of $1.5 million in sales per store annually, Amazon is potentially looking at $4.5 billion in sales through those 3,000 locations.

$4.5 BILLION

Potential revenue from Amazon Go stores by 2021

Photo: Amazon

Mahaney also estimates that between 400 and 700 customers visit an Amazon Go store daily, generating an average ticket of $10. During a trial visit by Mahaney's team to a Go store in San Francisco, it took as little as 44 seconds and as long as four minutes to shop and check out, with an average per-visit time of two minutes and 33 seconds. As a disclaimer, Mahaney says some team members did spend a minute or two browsing in the store.

"[Amazon Go's] in-store technology enables shoppers to have a very efficient and pleasant shopping experience," Mahaney says in the brief. "While not a significant financial contributor yet, we believe the overall opportunity is huge."

'YET ANOTHER OPTION'

The potential sales volume and shopping efficiency of cashierless checkout has sent other retailers scrambling to catch up, though with departures from, and variations on, the Amazon technology.

Last month, supercenter chain Meijer Inc. announced it was rolling out its Shop & Scan mobile-shopping and checkout program to 23 stores in the Chicago area and Northwest Indiana. This comes after the company tested the technology in its home state of Michigan, where 31 stores are reportedly using it.

Grand Rapids-based Meijer requires shoppers to download its Scan & Pay app before it can be used in-store. Shoppers scan items' bar codes using their phone, and a running total of the purchases is shown in a virtual shopping cart in the app.

When finished, the shopper scans her phone at the self-checkout lane, pays, and bags her items. Shoppers have the option of placing items in reusable shopping bags as they move through the store to eliminate bagging at checkout.

When the technology debuted in April 2018, Meijer's chief information officer, Terry Ledbetter, said in a prepared statement that the retailer views the technology as "yet another option for Meijer customers to personalize their shopping experience" along with the retailer's curbside-pickup and home-delivery programs.

While Meijer executives were unavailable for comment about expansion plans for Scan & Pay, the

Meijer's Shop & Scan program allows shoppers to weigh an item while in the produce department and then scan a barcode to add the item to their in-app shopping cart.

Photo: Meijer

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chain reportedly plans to roll Scan & Pay out to all its 235 locations. The Shop & Scan app is available at Apple and Android stores.

UNKNOWNS AND UNCERTAINTIES

One reason Meijer and other retailers deploying cashierless checkout are opting for app-based solutions is cost efficiency. The cost of an Amazon Go store, which can range in size from 1,700 to 2,400 square feet, is reportedly at least $1 million dollars.

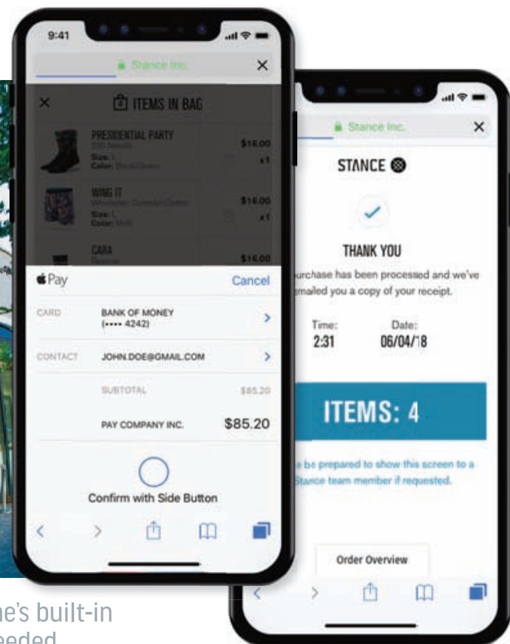
"While Amazon can afford to spend that kind of money per location, most retailers can't," says Ken Morris, principal for Boston-based BRP Consulting. "Self-service technology can be an expensive proposition for retailers, just look at in-store kiosks. But if the phone can be the gateway to a frictionless checkout environment, it's worth a look, provided it can deliver the adoption levels needed to make it work."

While there are no hard figures on what it costs to develop a cashierless-checkout app that consumers download or access through their browser, estimates range from as little as $50,000 to several hundred thousand dollars, payments experts say.

The unknowns around cost and adoption levels are why so many flavors of cashierless checkout have emerged.

Indeed, uncertainties about app-based systems are a big reason Stance opted to deploy browser-based technology from Boston-based Moltin Ltd.

"When we decided to move into cashierless checkout, we sought a cost-effective solution and realized that only the most loyal customers would download our app, because most consumers are suffering from app fatigue on their phone," Stance's Zaengle says. "With a URL-based system, anyone entering the store can access cashierless checkout."



Stance's self checkout uses a phone's built-in browser, so no app download is needed.

Images: Stance

Plus, it's the kind of economical solution the small but growing retailer sought. Stance decided to make the move to cashierless checkout two Christmas-shopping seasons ago when it noticed holiday shoppers getting bogged down in the checkout line at the six stores it had then.

Shoppers entering a Stance store are greeted with signage promoting cashierless checkout and the URL to access it. Once connected via their phone's browser, shoppers can scan items into their shopping cart. At checkout, shoppers have two payment options, their mobile wallet, if they have one, or Stripe, a San Francisco-based online payments processor. Stripe recently made its processing software compatible with point-of-sale hardware devices.

Part of what sold Stance on Moltin's cashierless technology was that it could have a hand in developing the consumer interface, Zaengle says.

"We've worked closely with other retailers in other segments, such as pop-up stores," says Jamus Driscoll, chief executive at Moltin. "Stance takes a customer-first approach and this technology is about making the customer experience more delightful. This isn't a way to shop faster, it's part of the overlay of the digital experience in stores."

'GIVING UP CONTROL'

Delivering what consumers want when it comes to cashierless checkout is going to be critical. Retailers in general, especially those operating on slim margins, such as grocers and convenience stores (which earn a 1% to 2% margin per sale), are notorious for hanging on to their point-of-sale infrastructure.

The reason, payment experts say, is that when the cost of adding new technology is multiplied across hundreds of stores, the financial outlay adds up quick.

That's why brandable, white-label applications developed for a general audience are viewed by retailers as more cost-friendly than Amazon's customized approach.

The downside is that white-label solutions deny retailers the chance to use the technology as a point of differentiation, since it is essentially the same as that of any competitor using the same app.

"A lot of retailers rely on fintech startups developing generic systems to get new technology implemented, but that means giving up control because the technology is not unique to a retailer's business, like Amazon Go," says Richard Crone, principal at Crone Consulting LLC, a San Carlos, Calif.-based financial-services consultancy.

Adopting white-label solutions also raises questions about their reliability and scalability. The biggest question surrounding white-label cashierless checkout apps is whether the barcode of every item scanned can be matched to that of the item put in the shopper's physical cart.

Without a cashier to check items before the customer leaves the store, what's to prevent a user from scanning a lower-priced item and placing a higher-priced alternative in her cart, payment experts ask.

Questions have also been raised about how well white-label technology can handle non-packaged items that need to be weighed to determine a price, such as produce or items requiring identification for purchase, such as tobacco and liquor.

Other questions include how retailers will move consumers through checkout if the technology breaks down and who will be available to fix the problem in the event of a glitch.

Photo: Grabango

'If one camera or server goes down, we have the hardware and software redundancy to keep the system up and running.'

—**ANDY RADLOW**, VICE PRESIDENT OF MARKETING, GRABANGO

REDUNDANCY

Bottomline, says Mark Bunney, U.S.-based director, go-to-market, for Paris-based POS-terminal maker Ingenico, no technology is perfect.

"Any technology can break down," he says. "But before the technology can be deployed, it has to be cost-effective. That's why there are different flavors of cashierless checkout, because what works for one retailer is not going to work for another."

One tactic to guard against a system failure is redundancy. Grabango, a Berkeley, Calif.-based provider of a cloud-based cashierless technology that does not require shoppers to download an app, claims to have full redundancy for its hardware and software.

"If one camera or server goes down, we have the hardware and software redundancy to keep the system up and running," says Andy Radlow, vice president of marketing.

Grabango recently received $12 million in venture capital, bringing its total funding to $18 million, a sign that investors are getting behind cashierless checkout.

Spending at retailers deploying cashierless checkout is projected to grow to more than $45 billion by 2023, up from an estimated $253 million in 2018, according to Hampshire, United Kingdom-based Juniper Research.

The majority of cashierless transactions during that period are expected to take place in convenience and general-retail stores, with an average ticket of about $30, Juniper says.

WHO WILL SUCCEED?

Whether cashierless checkout takes hold is up to the consumer, payments experts say. Since e-commerce became a mainstream shopping channel, merchants have tried many ways to re-invent the in-store experience, and not always successfully.

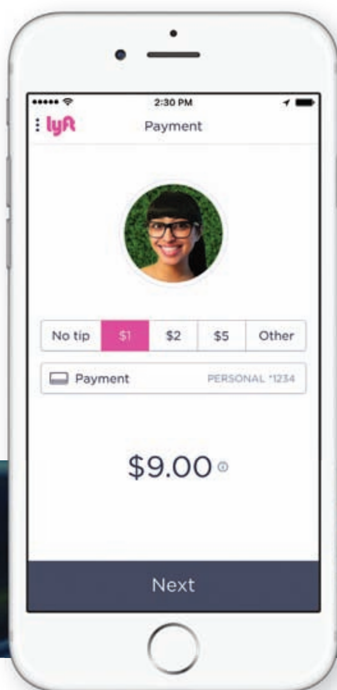
"The concept of cashierless checkout is not new, it was put forth more than a decade ago as part of the retail store of the future, which led to self-scanning and payment technology," says Bunney. "Retailers are looking to unify the in-store experience and e-commerce with cashierless checkout, but the technology is still too new and imperfect."

So who will succeed? Says Bunney: "The retailers that succeed will be the ones that think about consistently tying the online and mobile experiences together with the in-store shopping experience." DT

PRESSURE POINTS

Lyft's efforts to lower its costs may be emblematic of a broader initiative among so-called gig-economy firms to tame nettlesome factors like card-acceptance costs.

BY **KEVIN WOODWARD**



Seeking an IPO, Lyft is bent on cutting its card-acceptance costs.

(Image: Lyft)

IT'S EVERY MERCHANT'S DREAM to chop card-acceptance costs to the bone. Historically, some sellers, especially those with very large credit and debit card payment volumes, purportedly have negotiated better interchange rates.

Now, at least one company quickly ascending towards the top of the so-called gig economy is flexing its muscle.

The question, however, is: Does this relatively recent type of company—which just about exclusively depends on card payments—have any more sway with the card brands and issuers than more-traditional merchants? The answer is a definite maybe.

With $2.28 billion in losses over the past three years, ride-share provider Lyft Inc. is looking to cut costs—and payment-card acceptance expenses won't be spared.

COMBINING TIP AND FARE

In a filing last month with the Securities and Exchange Commission for an initial public offering of stock, San Francisco-based Lyft outlined several initiatives it already has started or is planning. The registration statement notes that as Lyft's ride volume has grown, so have its payment-processing fees: up $109.6 million last year following a $140.3 million increase in 2017.

The so-called S-1 filling doesn't say whether payment costs are rising in exact lockstep with ride volume. Payment fees are listed in a line item called "cost of revenue" that also includes insurance, where bills are rising even faster than payment fees, and hosting and platform-related technology expenses.

In all, cost of revenue totaled $1.24 billion in 2018, up 89% from $659.5 million in 2017, when costs rose 136% from 2016. Higher costs in the three categories all "were driven by significant growth in the number of rides," the filing says.

Lyft drivers have provided more than 1 billion rides since the service launched in 2012. Most rides are paid through credit and debit cards via Lyft's mobile app, or through third-party payment services. The IPO filing outlines several ways in which Lyft is trying to rein in payment costs.

"In 2018, we added an additional payment processor for credit and debit card transactions," the filing says. "We expect the fees paid to this additional payment processor will be lower than our other primary

provider." The filing names neither provider, but San Francisco-based e-commerce processor Stripe Inc. counts Lyft as one of its customers.

Lyft also said it is revising its transaction workflows to avoid incremental fees. "For example, we are updating our payment processing to capture a ride fare and tip as a single transaction rather than two separate transactions with two separate processing fees," the filing says.

That effort echoes a plea a Lyft executive made at a Chicago conference last summer in which he called on the payment card networks to revise their procedures to accommodate new gig-economy companies such as Lyft. ("Gig economy" generally refers to technology-enabled services delivered via self-employed providers, such as ride-share drivers).

"Lyft is a high-volume business with a lot of transactions. They appear to have reached the point where they can successfully lower their cost per transaction," says e-commerce researcher Thad Peterson, a senior analyst at Boston-based Aite Group LLC, by email. "Combining the fare with the tip will also consolidate their volume and increase the efficiency of their payment operation."

Lyft also indicated it's ready to bargain for lower interchange, and might even introduce its own payment-related services.

"Over time we intend to lower costs of significant portions of our portfolio by negotiating private interchange rates with larger financial institutions and by possibly creating our own payment products," the filing says. The document doesn't offer details, and a Lyft spokesperson did not respond to a request for comment from *Digital Transactions.*

"As company revenue increases, so too do their payment expenses, and as they achieve scale it's logical to explore both lower-cost alternatives as well as additional feature functionality that adds value," says Peterson.

THE STARBUCKS MODEL

What might those payment-related services look like? They may reflect those of Starbucks Corp., some observers say. Usually held up as

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an example of how to create and implement a mobile wallet, the coffee retailer is quite successful at managing a stored-value program.

"Payment mechanisms focused on merchant cost reduction are emerging," says Krista Tedder, director of Javelin Strategy & Research, a Pleasanton, Calif.-based research firm.

"Starbucks provides the best example of how to create a new payment ecosystem," Tedder says. "[The] Starbucks rewards program is based on the consumer loading funds on a physical or digital prepaid card. The funds are topped up in $25 or $50 increments, which reduces the number of low-dollar, high-frequency transactions.

"Starbucks also now has $1.6 billion in deposits as of [end-of-year] 2018," she continues. "Using a stored-value program immediately lowers the payment cost of Starbucks. Uber has also created a new cash wallet mechanism to build a similar business model."

Uber, another ride-share provider, launched Uber Cash in 2018. The service enables users to load funds ahead of rides, and like Starbucks, has an auto-refill option.

In Lyft's case, it could offer a prepaid account with an integrated rewards program, says Aaron McPherson, vice president for research operations at Maynard, Mass.-based Mercator Advisory Group.

"The only way gig-economy companies could put pressure on interchange is if they had a credible threat to stop taking network-branded cards, or if they were currently cash or check-only and represented an important growth opportunity for the networks," McPherson says. "The second option is not true, since they are mostly dependent on cards now. The first option would be possible if they could bypass the networks somehow."

BUYER PRESENT

One such possibility is faster payments, a broad effort among various payments entities to enable clearing and settlement of payments quicker than before.

"Faster payments is the leading option here. However, so far it is being positioned as a solution for paying drivers, not charging consumers," McPherson says. "Zelle prohibits [consumer-to-business] payments currently, and banks are likely to do the same with same-day ACH and The Clearing House. They do not want anything cutting into their interchange."

Zelle is the person-to-person payments service from Early Warning Services LLC, a bank-owned company. The Clearing House Payments Co. LLC, owned by many of the nation's largest banks, offers a real-time payment service.

Another potential move, however unlikely, is the creation of a new class of interchange that reflects a buyer-present, card-not-present transaction. It may make sense in principle, McPherson says, but it's not likely unless the networks see an opportunity to grow their share of payments.

Still, a new interchange classification isn't necessary, argues Javelin's Tedder. "New industry classification is not needed. However, existing interchange models need to be evaluated and lowered to improve the business model," she says. "If interchange is not reduced in the United States, merchants will continue to collaborate with other merchants to find new ways to extend payments."

What could that mean? "For example," Tedder explains, "it is very easy to envision a future where Amazon Payments are accepted in stores which sell products on the Amazon marketplace. It would create a new payment model which would be focused on mobile acceptance and security while reducing processing costs. Walmart would also be able to facilitate a similar payment structure for other merchants."

BANS THAT BACKFIRE

Still another, albeit drastic, strategy to pressure the card networks on interchange is to ban card transactions. While risky because it could alienate consumers, the move gets everyone's attention. Witness Kroger Co.'s recently imposed ban on Visa credit card acceptance at two of its regional chains. Walmart Inc., too, has practiced similar tactics.

"Kroger and Walmart have had some success with banning certain network-branded cards from some of their stores," McPherson says.

But he points out the tactic's drawbacks. First, they are typically limited in their effect. ""Kroger's does not include their supermarkets, but a separate branded chain within their corporation," says McPherson. Second, he adds, the bans can rile up customers and drive them to rival stores.

"In a highly competitive market like ridesharing, where it is simple for Lyft riders to switch to Uber, and many drivers work for both, such a [move] would likely backfire," he says. DT

—With additional reporting by Jim Daly

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HOW TO (REALLY) CODE SECURE SOFTWARE

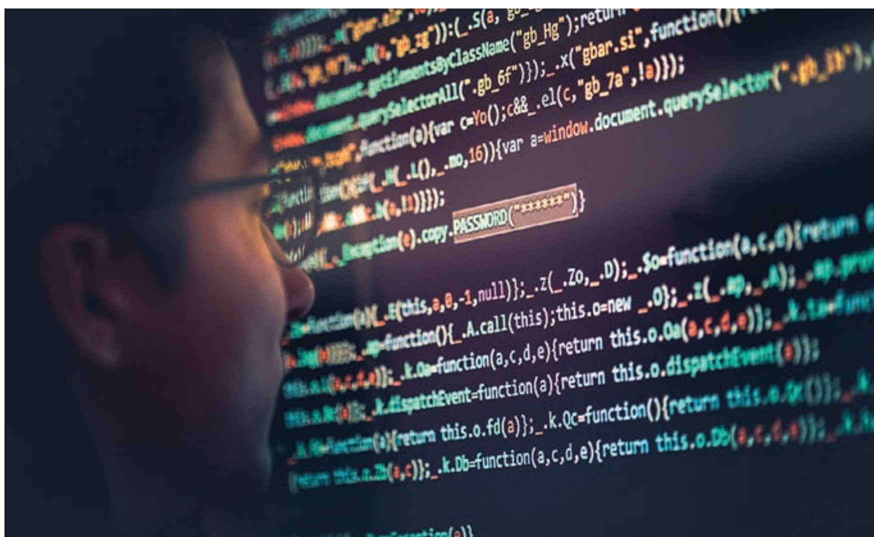
The new PCI software standards represent a big improvement for security, but we're still waiting for the quantum leap we need. Here's why.

BY **PIETER DANHIEUX**

Pieter Danhieux is cofounder and chief executive of Secure Code Warrior Pty Ltd.

IN JANUARY, THE PCI SECURITY STANDARDS COUNCIL RELEASED an all-new set of software security guidelines as part of its PCI Software Security Framework. This update aims to bring software security best practice in line with modern software development. It's a fantastic initiative that acknowledges how this process has changed over time, requiring a rethink of the security standards that were set well before the majority of our lives became rapidly digitized.

This is clear evidence of our industry more closely engaging with the idea of adaptable guidelines—ones that evolve with our changing needs—as well as with the demands of a cybersecurity landscape that could very quickly spiral out of control if we continue to be lax in our secure development processes.



Naturally, with the PCI Security Standards Council acting as a governing body within the banking and finance industry (setting the security standards for the software in which we place our trust to protect all of our money, credit cards, and transactions online and at the point of sale), it confronts a lot of risk and has huge motivation to reduce it.

These standards certainly improve upon the previous version and go some way toward plugging the hole we have with rapid, innovative feature development that also prioritizes security as part of the overall quality assessment. But it's a somewhat disappointing reality to find that we still have a long way to go.

No, that's not me giving a "bah, humbug!" to this initiative. The fact is, these new security guidelines simply don't move us far enough to the left. Here's a summary of what I mean:

We're still fixated on testing (and we're testing too late).

One glaring issue I found with the PCI Software Security Framework

is its apparent dependence on testing. Of course, software must still be tested, but we're still falling into the same trap and expecting a different result.

Who writes line after line of code to create the software we know, love, and trust? Software developers.

Who fills the unenviable role of testing this code, either with scanning tools or manual code review? AppSec specialists.

What do these specialists continue to discover? The same bugs that have plagued us for decades. Simple stuff that we've known how to fix for years: SQL injection, cross-site scripting, session management weaknesses … it's like Groundhog Day for these guys.

They spent their time finding and fixing code violations that developers themselves have had the power to fix for years, except that security has not been made a priority in their process. That's especially true now, in the age of agile development, where feature delivery is king and security is the Grinch that steals creative process and dampens the triumph of project completion.

This is not a negative assessment of either team. Developers and AppSec professionals both have extremely important jobs to do, but they continue to get in each other's way. This situation only perpetuates a flawed system-development life cycle, where developers with little security awareness operate in a negative security culture, producing insecure code, which then has to be scanned, assessed, and fixed well after it was initially written.

AppSec barely has time to fix the truly complex issues, because they're so caught up with the little recurring problems that could still spell disaster for a company if left unchecked.

We are wasting time, money, and resources by allowing testing to be the catch-all for security weaknesses in code. And with massive data breaches every other day, this method is obviously not working optimally, if at all.

These new standards are still assessing an end-product state (perhaps on the assumption that all developers are security-aware, which is not the case) as in, one that's already built. This is the most expensive and difficult stage at which to fix flaws.

It's like building a fancy new house, only to bring in a safety team

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to check for any hazards on the same day you move in. If something is wrong with the foundation, imagine the time, cost, and utter headache of getting to that area to even begin addressing the issues. It's often easier and cheaper to simply start again (and what a wholly unsatisfying process that is for everyone who built the first version).

We absolutely must work from the ground up by getting the development team engaged with security best practice, empowering them with the knowledge to efficiently code securely, in addition to creating and maintaining a positive security culture in every workplace.

Is it a learning curve? Hell yeah, it is. Is it impossible? Definitely not. And it doesn't have to be a boring drudgery. Training methods that appeal directly to the developers' creative, problem-solving traits have already had immense success in the banking and finance sector, if Russ Wolfe's experience at Capital One is any indication.

We're still searching for the perfect "end-state."

If you look at the updated PCI security standards in the context for which they are intended, the context in which your finished, user-ready financial product must follow these best practices for optimum security and safety, then they're absolutely fine.

However, in my view, every single company, financial or otherwise, would have the best chance of reaching a software end-state that is representative of both feature quality and high-standard security if only it took a step back and realized that

> These new standards are still assessing an end-product state ... as in, one that's already built. This is the most expensive and difficult stage at which to fix flaws.

Pieter Danhieux

it is much more efficient to do this from the beginning of the cycle.

That perfect end-state? You know, the one that happens when a product is scanned and manually reviewed and comes out perfect and error-free? We are still searching for it. It's a unicorn.

Why is it so elusive? There are a number of factors:

- Scanning tools are relied upon, yet they are not always effective. False positives are a frustrating, time-wasting byproduct of their use, as is the fact that even together, dynamic application security testing, static application security testing, and PCI scanning simply cannot identify and reveal every possible vulnerability in the code base. Sure, they might give you the all-clear, but are they really looking for everything? An attacker only needs one vulnerability to exploit to access something you think is protected.
- Developers are continuing to make the same mistakes. There is no distribution of knowledge between developers around security and no "secure code recipes" (good, secure code patterns) that are well-known and documented.
- There is no emphasis on building a collaborative, positive security culture.
- Developers need to be empowered with the right tools to bake security into the products they write, without disrupting their creative processes and agile development methodologies.

These guidelines are a powerful verification checklist for the standards of security that software should adhere to, but the best process to get software to that state is up for debate.

> We don't have insecure software because we lack scanners. We have insecure software because developers are not provided with easy-to-use, easy-to-understand security tools that guide them.

We're in a time of evolution right now. Software security in general, for many years, was optional. Today, it's essentially mandatory, especially for the keepers of sensitive information.

The PCI Security Standards Council is helping to set the benchmark, but I would love to see it, with all its industry esteem and influence, work towards including practical guidelines for developers, with an emphasis on adequate and positive training and tools.

At the moment, there's no pressure for organizations to ensure their development teams are security-aware and compliant, nor do many developers understand the magnitude of those small, easily fixed mistakes when exploited by those that seek to do harm.

Just as it is with anything worthwhile in life, it really does take a village to truly enact change. And the change in the air is (we hope) going to sweep us all further toward truly secure software. DT

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THE NEED FOR A PAYMENTS-ORCHESTRATION PANEL

Payment complexity, combined with a scarcity of engineering talent, makes a new functionality layer all the more urgent for merchants' payment flows.

BY RENÉ PELEGERO

René Pelegero is principal and founder of Retail Payments Global Consulting Group LLC, Kirkland, Wash.

THE PAYMENTS "STACK" IS DECEPTIVELY SIMPLE: An authorization process is followed by a settlement process, with ancillary-reporting and exception-handling processes. Upon closer inspection, the deceptiveness of this simplicity becomes apparent.

There are many functions, subfunctions, components, and elements required to accept payments in the card-not-present (CNP) space. For merchants, authorizations in particular have become very complicated due to the growth of cross-border sales, the need to improve approval rates, and the desire to reduce operational costs while remaining compliant with card schemes' rules and minimizing fraud exposures.

> **"Orchestration"** refers to software platforms and services that automate … business processes to help streamline and simplify operations management. By automating the configuration, management, and interoperability of disparate computer systems, applications, and services, orchestration can free IT from the burden of managing a variety of mission-critical but often complex tasks and processes.
>
> **–FORREST STROUD**, WEBOPEDIA

Many CNP merchants have built and successfully operate their own authorization gateways. Others have leveraged provider-agnostic payment gateways. Most of these environments were built to solve for immediate needs.

Among our clients, we find a staggering amount of technical debt that prevents payment operations from rapidly deploying services or optimizations to capitalize on potential market opportunities. These deficiencies will continue to exist as long as there is demand to support additional requirements (for example, "honor all wallets," network tokens, and so on).

The dearth of available payments-product managers and engineers makes the burden of maintaining platform functionality an ever-growing problem.

At this point, we are often asked, "Why not just use a payment-service provider (PSP) that manages all of this functionality for me?" For many merchants, this is a good solution as those merchants do not need to solve for the complexity of managing several different providers (and token types) across several different sales channels, currencies, geographies, product types, and billing arrangements with their own different partner-commission structures.

That is to say nothing about supporting multi-acquiring redundancies in each strategic market, as has been highlighted by the rising number of acquirer outages.

For a merchant to truly control its own environment, its service-level agreements, and most important, its data, a new functionality layer is required: the payments-orchestration panel, or POP (see diagram, page 42).

FLEXIBLE MECHANISMS

As its name implies, the POP layer orchestrates all of the activities that could be associated with processing a transaction authorization to optimize the value of every transaction.

The consolidation of all the logic currently employed to handle authorizations with a number of proposed features into this single functionality layer stands in contrast to the fragmented functionality currently in the merchant marketplace across order-entry systems, billing engines, and fulfillment platforms.

The functionality of a well-architected POP allows merchants to turn payments into a truly valuable asset for the entire company.

For example, global merchants need connectivity to multiple acquirers, processors, and payment service providers (PSPs) around the world. In many cases, the connectivity requirement goes beyond cards to include other payment forms such as bank transfers or cash payments. Traditionally, each new payment method requires a new integration effort, placing demand on merchants' scarce technical resources.

Through a single application programming interface, by contrast, POPs would have connectivity to lots of endpoints—acquirers, processors, PSPs, other gateways, banks and clearing houses, as well as cash-accepting schemes (for example, OXXO in Mexico).

Because it is best practice to denominate a transaction in the buyer's currency, POPs must have flexible mechanisms to handle transactions in currencies other than the merchant's native settlement currency. This may mean an interface to a foreign-exchange engine and a tax engine to price transactions at checkout time, if that is the pricing option that merchants may have chosen.

Properly engineered POPs will track these rates for every transaction so that, in the case of refunds, POPs can ensure buyers get the same amount they paid, without burdening accounting systems with these calculations.

RISK MANAGEMENT

POPs can also help merchants lower their operational costs by minimizing exposure and expenses related to the Payment Card Industry data-security standard. They would do this by providing a fully certified PCI/DSS level 1 token vault or be able to interface to an equally certified third-party token vault.

If offering its own token vault, the POP would support PCI tokens and EMVCo payment tokens, payment-account reference (PAR) numbers, API-based de-tokenization tools, and multiple token formats. Regardless of each disparate token format, a POP would pass a standardized token format back to the merchant. At a minimum, the POP must be able to pass the first six and last four digits back to merchants.

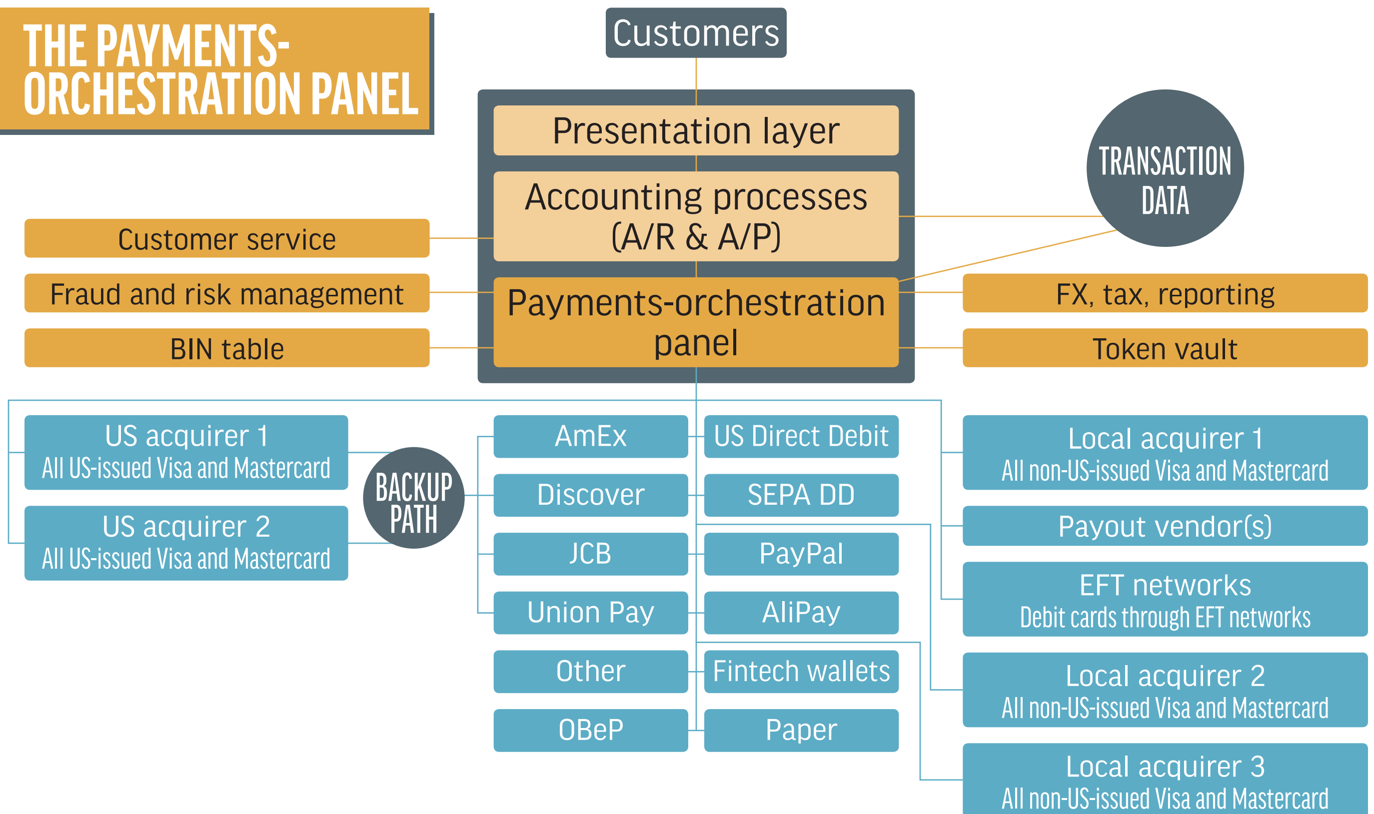
POPs could also offer their own management tool for risk and fraud, or—the most likely circumstance—interface to third-party engines. POPs must orchestrate the routing of transactions based on the score or response code from the fraud engine.

Because risk-management engines reply with different codes, and because merchants will likely want different routing options, POPs must offer flexible tools to allow merchants to create their own routing-orchestration rules, allowing changes to these rules without requiring any software development.

TRANSACTION ROUTING

The most important requirement for POPs is the ability to smartly route transactions. This label encompasses multiple capabilities. Let's explore some of these.

Some large merchants have implemented dual-acquirer strategies to immediately switch traffic



between acquirers when one of them has an outage. POPs, therefore, must be able to detect availability so they can immediately and automatically re-route transactions to the available acquirer.

Further, POPs could also act as load balancers by monitoring acquirers' response times and shifting volume to the faster acquirer to provide good online response times and prevent checkout abandonment.

By leveraging smart routing, some of our clients have saved between 20% and 30% of "do not honor" declined transactions when they are retried via an alternative acquirer. For large merchants, this can represent an additional 1% to 3% in top-line sales.

This benefit alone would justify an investment in the POP. Smart routing leverages historical information to route authorizations based on bank-identification numbers, time of day, day of week, transaction types, cost, and other factors to improve approval rates or to lower costs.

Well-thought-out POPs can deliver other financial benefits, such as lower operational costs due to reduced PCI/DSS compliance burdens, least-cost routing (for tiered pricing or credit vs. PINless debit), and reduced development costs and faster time to market when introducing a new payment method or entering a new geography.

Thus, POPs must offer flexible tools to allow merchants to develop their own routing decision trees and allow changes to these routing rules without any software development required.

Presently, state-of-the-art tools require merchants to do these analytics offline. Looking down the road, POPs themselves could be equipped with machine-learning technology to make these decisions in real time.

RULES MANAGEMENT

POPs can also be engineered to help merchants support the many new rules that the card schemes (for example, Visa and Mastercard) have recently introduced to the authorization process.

For example, since the rule regarding card verification replacing $1 authorizations has not been consistently implemented globally, merchants need to know when to do one or the other. This is important because issuers might decline a card

SMART PAYMENT SOLUTIONS: WHAT IS THE PAYMENTS INDUSTRY DOING TO KEEP UP?

We've come to expect certain levels of safety, security, and convenience when it comes to payments. Today, consumers are using their phones, watches, and even their cars to pay for various goods and services.

Recently, the Mercedes-Benz Stadium, home of the NFL's Atlanta Falcons and MLS' Atlanta United, switched to only accepting credit and debit cards and mobile pay methods – effectively doing away with cash. Eliminating the costs of handling cash, minimizing security exposures, and effectively speeding up transaction times for customers are just a few of the core demands for today's payment experience. The emerging trend of leveraging smart devices to improve the customer experience is growing at tremendous rates, and the payments industry is strategically poised to deliver on the demand.

CONSUMERS WANT A FRICTIONLESS EXPERIENCE.

Consumers are increasingly expecting technology to play a role in everyday experiences. Time remains an incredibly valuable asset, and one that consumers value most. Technology can help streamline a more efficient and frictionless experience to let consumers make the most of their time in a day. Smart payment solutions play an important role in providing that frictionless checkout experience by allowing customers to pay with their preferred method of payment. (credit or debit card, Apple Pay, Alipay, Samsung Pay or contactless credit card – to name a few.) Software firms and device manufacturers continue to align with payment providers to ensure an effortless payment transaction whenever a customer is buying a product, service, or subscription.

WHAT DOES THIS SHIFT MEAN TO THE PAYMENTS INDUSTRY?

With the staggering growth of smart solutions, everyone from municipalities to merchants are looking at how technology can drive a connected experience. The payments industry plays a critical role by supplying the infrastructure that offers payment options consumers want. The range of connected devices available to the industry is growing rapidly. Everything from smartphones, to smartwatches, to the refrigerator; offer up the potential for payments to integrate.

According to Pew Research, 77 percent of Americans now own smartphones, and approximately 32 percent have made a mobile purchase – with that figure expected to increase. While there are some misconceptions that smart payment solutions might not be as secure as using a more traditional payment method, card issuers are taking steps to help calm that fear. Contactless cards are a stepping stone that act exactly as a mobile wallet, but mirror the experience of using a credit or debit card. The payments industry can help in alleviating some of the unknown by demonstrating the increased security that many of the smart payment solutions offer.

HOW WILL SALES PARTNER CHANNELS BE IMPACTED?

The trend of consolidation in the payments industry signifies the shift towards offering solutions that will help drive an engaged experience that consumers are starting to demand. Because of this consolidation trend, sales partners will be better equipped with full suites of solutions that they can offer to merchants in a variety of industries. As sales partners continue to search for advantages in the market, smart solutions will offer a more connected experience for both the merchant and consumer.

New innovations in payment methods are making it easier for consumers to pay for goods and services. If merchants want to create value and drive customer loyalty, they'll want to integrate value-add services and technological advancements to offer a frictionless and connected payment experience.

verification when they only support a $1 authorization, or vice versa.

POPs with access to such information can optimize this process without burdening merchants' systems with this logic, while at the same time optimizing approvals for new customers.

Similarly, card schemes have introduced penalties for authorizations not performed according to their rules. Examples of these penalties include Visa's Misuse of Authorization Fee, Zero Floor Limit Fee, and Transaction Integrity Fee, as well as Mastercard's Processing Integrity Fees in all their different varieties.

Automated exception processing using a POP should be technologically easy by automatically initiating reversals when authorizations are about to expire or initiating authorizations for settled transactions when a previous authorization cannot be identified.

Upcoming Visa and Mastercard regulations mandate that all merchants in the U.S. and Canada "must process a purchase return authorization for each return" (that is, a credit authorization for each refund). Once again, POPs should be able to initiate these authorizations without requiring any changes to merchants' systems that were built to issue only a refund and not to do prior authorizations.

The same logic can be employed to justify POPs supporting other requirements imposed by the card schemes, such Credentials on File, 3-D Secure 2.0, or other Secure Customer Authentication protocols.

REPORTING

Because the POP passes transaction data to acquirers, PSPs, banks, and other entities, it should also be able to consume that data to generate consolidated reports. In addition, that data can also feed panels and dashboards that merchants can use to manage the business of payments in real time.

Marketplace platforms or payment facilitators should also enjoy the POP's ability to segment transaction reporting by business unit or sub-merchant on their platforms.

There are many other capabilities that POPs can provide to ease the workload of technical staff who support order entry, billing, and fulfillment systems.

BUILD OR BUY?

If merchants agree that they are better off consolidating this functionality into a single POP layer, the question becomes whether to build or buy.

There are many merchants with the technical capability and payments-industry know-how to build a payments-orchestration panel. We plan to release a white paper in late spring detailing all of the requirements for an optimized authorization environment based on inputs and requirements we have been hearing about from many merchants.

For those merchants interested in buying, there are a few things to consider. There are a number of PSPs that support some of the routing capabilities described in this article. In essence, these PSPs manage their own POPs, switches, or gateways.

But, to be clear, a PSP acquires the transaction or assumes financial ownership of the transaction (that is, the PSP is paying the merchant). A POP does not. The POP is merely the technological layer that enables connectivity.

Some PSPs have great reach in terms of connectivity and alternative-payments coverage. However, such vendors charge merchants for the success of "saved" declines, eroding some of the economic benefits from a POP.

Further, these PSPs might be using the same acquirers that merchants use, defeating the fail-safe purpose of multi-acquirer strategies. Still, a PSP is a good alternative for merchants that have stable connectivity requirements and authorization approval rates.

On the other hand, there are a number of vendors that offer connectivity and tools to orchestrate transaction workflows without assuming financial responsibility for the transaction. Sometimes these vendors are called switches or payment gateways.

RPGC Group, under the sponsorship of the Merchant Risk Council (MRC), has recently surveyed the landscape for these vendors. The Paladin Payment Systems Vendor Report is available through the MRC and highlights the capabilities of selected vendors in the space.

To be clear, none of the vendors in the report meet all of the requirements envisioned for a full-fledged payment-orchestration panel. But we believe that a few of them are good candidates to evolve into a true POP as described here. Merchants will find our report useful to identify capabilities available from the different vendors.

Whether built or bought, the payment-orchestration panel is a crucial architecture component for any forward-looking merchant. DT

ACQUIRERS BECOMING ISSUERS: THE EVOLUTION OF MERCHANT SERVICES

Until recently, Merchant Acquiring and Card Issuing processes were at different ends of the spectrum. However, ingenuity, competitive pricing for merchant services, and an opportunity to better serve the growing number of new businesses are resulting in a confluence of acquiring and issuing in the payments industry. Acquirers are now offering payment products and services that were once available only through issuers and unlocking new revenue opportunities while fueling merchant service enhancements that bolster their bottom lines.

WHY ARE ACQUIRERS GETTING INTO THE ISSUING MARKET?

Interchange, of course. While Interchange represents a cost to the Acquirer, Interchange is a revenue source for the Issuer. Acquirers are now looking to tap into the Interchange revenue generated from Issuing products to boost revenues and lower the cost of acceptance for their merchants.

Aliaswire has taken a holistic approach to this rising trend in providing merchant-centric card issuing products. Traditionally, acquirers have solely focused on merchant selling activities when in reality, merchants are equally focused on managing cash flow, lowering cost, and obtaining financing to grow. Aliaswire is supporting these core business needs and streamlining payments for businesses by providing a solution to ISO's and Acquirers that integrates both AR and AP business processes.

In the past, payment providers such as Square, and PayPal have been issuing Debit cards to their merchants and are generating Interchange revenue whenever their merchant uses the Debit card. However, Debit cards limit merchants' purchasing power, don't enable them to build their credit history and do not provide a line of credit. Now, however, many ISO's and Acquirers are unlocking the financial benefits of business credit card issuing by partnering with Aliaswire.

THE POWER OF B2B CREDIT

Aliaswire's PayVus® program accomplishes this by issuing a MasterCard World Business credit card to the ISO's/Acquirer's merchants. The PayVus technology platform split-settles a portion of the merchant's daily card processing deposits to the PayVus credit card. The combination of the PayVus card's line of credit combined with the daily deposits to the PayVus card provides greater purchasing power for the merchant that helps the merchant better manage cash flow.

Aliaswire provides a revenue share to the ISO/Acquirer from Interchange generated when merchants make purchases with the card. ISOs and Acquirers can use the revenue share to reduce merchant processing fees. This new approach to merchant acquiring may yield significant savings through the reduction of merchant processing fees.

For the merchant, the PayVus card provides a revolving line of credit to the business without a personal guarantee and, unlike debit cards, the transacting on the PayVus card helps the merchant build a solid credit history. Additionally, traditional card reward programs have limits on rewards whereas PayVus has no limit on savings.

Every business makes purchases, for supplies, inventory, software or meals. ISO's and Acquirers can – and should – capitalize on this opportunity by providing their merchant with a credit card for making purchases and managing business expenses. Providing merchants an integrated AR/AP solution, paves the way for stronger and longer lasting relationships, reducing churn and increasing ISO/Acquirer revenues.

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From its beginning, Fiserv set out on a path defined by its strategy to be number one in any market it entered.

endpoint

WHY IT MAKES SENSE FOR FISERV TO BUY FIRST DATA

Few foresaw this combination, but the deal is far from baffling once you understand Fiserv's history and long-term strategy.

BY PATRICIA HEWITT

Patricia Hewitt is principal of PG Research & Advisory Services. Reach her at patricia@paymentgal.com.

EVERY SO OFTEN, a deal comes along that makes the market take notice. One such moment was the announcement in January of the Fiserv Inc.-First Data Corp. multibillion-dollar acquisition/merger. Essentially, the reaction was "What!" But having spent almost 10 years as an executive on the inside of the Fiserv payments business, the deal makes perfect sense to me. Here's why.

A LITTLE HISTORY

Fiserv is a technology company with a business model based on recurring revenue from processing core financial transactions. It traces its origins to the combination of two data-processing platforms back in 1984. Rumor has it that its original leaders, Les Muma and George Dalton, flipped a coin to see if its headquarters would be located in Milwaukee, Les's hometown, or St. Petersburg, Fla., George's hometown. George lost.

The company set out on a strategy to be number one in any market it entered by offering a plethora of platforms and solutions designed to appeal to any type or size of financial institution. The management structure was made up of vertical corporate business segments containing like solutions. With a focus on core banking systems and traditional banking technologies, it took a few years before Milwaukee set its sights on filling its holes in the payments industry.

In 1997, the company acquired a small Florida entity known as Florida Infomanagement Services, which, among other assets, had a license to use the VisionPlus software and, importantly, was capable of managing and processing credit card accounts.

In 2002, the company acquired Computer Network Services, a credit union-focused division of EDS, which brought with it a range of EFT, debit, and ATM-processing technologies and platforms, including the Accel/Exchange network. Additionally, there were some smaller acquisitions, for example in the prepaid card segment. These combined assets were folded into a payments-business vertical within the company.

However, even when combined these assets weren't big enough to get the company near the number-one spot for payments processing in the United States. And there was still one big piece missing: merchant acquiring.

CRACKING THE ACQUIRING NUT

The acquiring business can be a cash cow if you're looking for recurring revenue, and it carries with it the

SPONSORED CONTENT

HOW ISOs ARE OUTSMARTING FLAT PRODUCTION TRENDS

By John Newton – Vice President of Sales, Strategic Partnership Channel, First American Payment Systems

If one-to-many isn't part of your ISO's growth strategy, it should be.

The days of selling on price and free equipment are in the rearview mirror. Product parity has leveled the playing field, with market compression and lower pricing margins making it even harder for ISOs to turn a healthy profit.

Integrated Software Venders (ISV) are changing the payment landscape by incorporating payments into a wide variety of software and hardware solutions. In most cases, when working with ISVs, integrated payments accentuate the value proposition of the software itself.

ISOs that are successfully winning against flat production and attrition are doing so by changing their sales process and targeting the ISV space. This approach provides additional revenue opportunities for both the ISO and the ISV and increases the value of the relationship to the merchant.

HOW ARE ISOs CHANGING THEIR SALES STRATEGY?

It starts by changing the focus on who to target. The ISV becomes the prospect in a one-to-many sales strategy. When payment solutions are integrated into an ISV's software program, ISOs enrich their pipelines and close more deals.

Each time the ISV sells their primary product with an integrated payment solution, your ISO gains a new merchant utilizing the ISV's sales personnel and resources. This allows entry into new markets and the ISV becomes a force multiplier by exponentially expanding your reach.

WHAT DO ISOs STAND TO GAIN FROM THIS APPROACH?

Instead of relying on a sales force that specializes in selling individual merchant accounts, you can leverage a software sales force that reaches a multitude of merchants with a single touch.

ISOs currently following this approach are breathing new life into their organizations, marked by sustainable growth in revenue and new merchants. With this strategy, all parties benefit from an integrated solution. ISOs supply the value of payments expertise, ISVs gain value and new profit centers, merchants gain efficiencies and consumers enjoy a seamless experience at the point of sale.

WHAT SHOULD AN ISO LOOK FOR TO GET IN THE ISV GAME?

Effective ISV integrations require active collaboration and flexibility between the ISV, ISO, and processor. It's essential for the ISO to have the right marketing plan, tools and support to partner with the ISV. The ISV must have the right integration tools for payments, such as Rest API, and for reporting, such as webhooks. It's imperative that all parties be in sync with communication, expectations and timelines to ensure a successful partnership.

Targeting ISVs can be extremely lucrative and impactful in growing your ISO. However, choosing the right processor is the first and arguably most important key to success. Choose a partner that has all of the technology solutions and APIs to support you, is sophisticated enough to customize a solution that fits your ISV integration needs, and a partner that can draw on deep experience to get your ISV opportunities off the ground quickly.

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multiples to back up a hefty valuation. Over the years, Fiserv looked for an acquiring business to pick up, but making an acquiring-platform-only acquisition meant two things. Fiserv would be on the hook to pay a much higher multiple than it normally would for any business, and it would have to deliver on cross-selling this business into its existing financial-institution clients.

The cost-of-acquisition hurdle could be overcome, but selling merchant services into mid-tier and smaller institutions was a very high bar in a banking market that had long ago turned its back on acquiring.

PREPARATION MEETS OPPORTUNITY

Fast forward to the present day. The financial-institution market in the United States continues to shrink in absolute numbers, driving the consolidation of core-banking solutions and the processors that service those banks.

Differentiating on a commodity business like processing has long been a challenge. It's in the expansion of services that sustainability lives, but the future is fintech and payments-centric solutions. Thus, Fiserv's strategic moves lately to buy its way into the large-scale payments-processing market—first Elan, and now First Data—make perfect sense.

Within this context, let's review all the value Fiserv receives from the First Data acquisition:

- An industry-leading, global merchant-services and processing business, including such technology as the Clover POS system;
- A top EFT network, Star, which, combined with Accel (formerly Accel Exchange), now ranks among the top three or four networks in the United States;
- The legacy Omaha platform, which is the number-one group service provider in the United States serving much of the credit-union industry, and which, combined with Elan Financial Services, also likely places Fiserv now in the number-one position for this segment;
- The VisionPlus platform, including all the private-label and bank card business currently processed on it from around the world, complimenting the VisionPlus platform Fiserv already licenses and runs domestically;
- A leading prepaid card program, including significant strategic alliances with companies like Walmart;
- The extensive payments experience and resources of the First Data team.

In other words, this acquisition puts Fiserv on the payments map with a much stronger position in the global market overall. Also, First Data gives Fiserv an expansive set of payments assets, enabling it to address the needs of the future fintech-enabled financial-services market.

SYNERGY COMES SLOWLY

With all this, the synergy potential of these two companies combined is significant. But not in the short term. It will take a few years at least for the newly created company to find its balance points and grapple with which technologies will live on.

In the meantime, First Data finally gets the financial breathing room and corporate governance to unlock its debt-burdened value.

What remains in the market is the next question. There's one major payments business that's often not part of the acquisition conversation but should be. Now under new leadership, Discover is a company I'm watching closely. I believe that, eventually, it will need to get into the third-party processing business. I like a Discover-TSYS mashup, but we often don't get what we want in this world.

In the meantime, I'm glad to see two great names in our industry join forces. DT

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