DIGITAL® TRANSACTIONS

Trends in the Electronic Exchange of Value

Now that FedNow is available, the real work begins.
But will the new system compete or collaborate with existing real-time networks?

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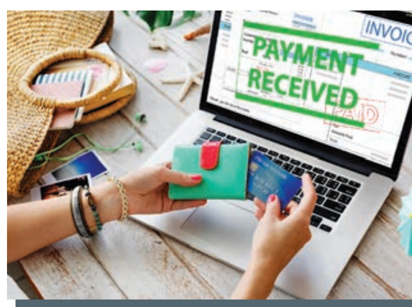

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ARE THEY COMING FOR BNPL?

THE BUY NOW, pay later craze, which took flight during the Covid pandemic, has turned into a $70-billion-plus segment of the payments industry. But that doesn't mean the point-of-sale credit product hasn't stirred controversy among acquiring-industry executives—mirroring, in fact, the diverging opinions held by business observers and regulators generally.

We witnessed that emerging clash of viewpoints in August at a payments conference that featured a panel discussion on the state of play in BNPL, which has become a mainstream offering at banks and fintechs alike. "It has solved a real pain point" for consumers, said Rob Seidman, head of product, BNPL/POS lending, at U.S. Bank's Elavon processing unit. "It's made [lending] insanely simple."

But others aren't so sure. BNPL's rising debt burden is "not good for our country," insisted Vlad Sadovskiy, chief executive of the merchant processor and banking-services provider Netevia Group LLC. Still, he conceded the technology behind BNPL, which enables on-the-spot installment credit for everything from socks to high-end merchandise, is "really, really cool."

The comments came during the MPC23 conference in Atlanta.

BNPL's potential has attracted a raft of emerging and established technology and payments companies, including such players as Affirm, Afterpay, and Sezzle. Some sources estimate total loan volume in the U.S. market will near $72 billion this year, up about 20% from 2022. The ease of taking out the short-term credit helped it grow in popularity in e-commerce but has fueled its popularity for in-store checkouts as well.

That's what worries processing executives like Sadovskiy. "Consumer awareness [of BNPL] is probably at an all-time high," he noted. "Consumers have tapped their Covid savings, which is not a good thing. Now, you're paying for your groceries over time. What's next?"

Seidman cautioned against moral judgements. "Debt as an instrument is not good or bad," he said. "As soon as we start playing the moral-police card, that's rough. I'm not sure BNPL is good or bad. There are bad practitioners." Still, he conceded his favorable viewpoint has limits. "I'm not in favor of [BNPL for] grocery or pharmacy," he said. "You will not see us doing that."

Regulators have already taken aim at BNPL and its providers. A key regulator, the Consumer Financial Protection Bureau, in March released. a BNPL report, and its view wasn't pretty. While the report noted that "many [buy now, pay later] borrowers who we observed used the product without any noticeable indications of financial stress, BNPL borrowers were, on average, much more likely to be highly indebted, revolve on their credit cards, have delinquencies in traditional credit products, and use high-interest financial services."

Guess who's likely to have the last word.

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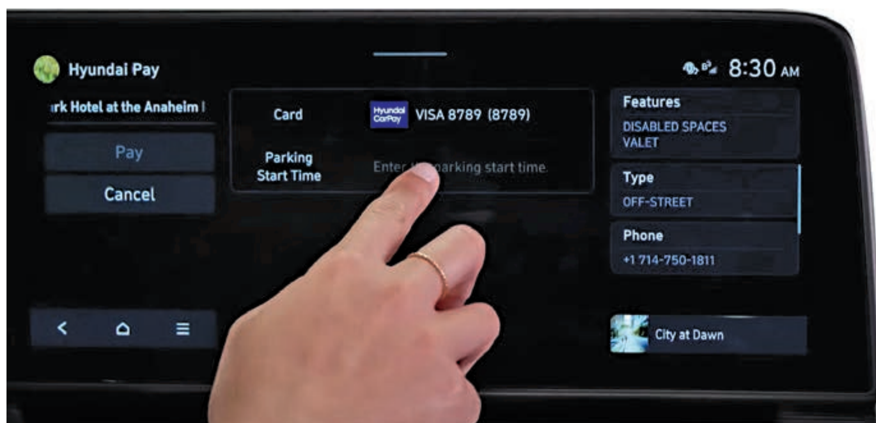
PARKING IS THE FIRST STOP FOR HYUNDAI PAY

Step one for Hyundai Pay, the in-car payment service debuting in the 2024 Kona crossover, is enabling payments for parking while sitting in the driver's seat. Step two is broadening its capabilities and making it an integral part of the vehicle, says Olabisi Boyle, Hyundai Motor North America's vice president of product planning and mobility strategy.

Announced in August, Hyundai Pay is a further refinement of an earlier effort from Hyundai to offer an in-car payment service. In 2018, Hyundai said it was developing an in-car wallet that could be used for payments. Now, the latest iteration of Hyundai Pay will be able to use the app to locate, reserve, and pay for parking at 6,000 locations in the United States through a partnership with connected-car services provider Parkopedia.

Years following the first attempt, Hyundai Pay is viewed as an integral part of the car. "And while we are starting with parking, this payment system is about more than that. It's about having payments as an integral part of future in-car use cases. At Hyundai, we are planning for the long-term and planning to have this payment technology as a part of the vehicles' tech stack foundation," Boyle said in an email.

What's changed, and factoring into this outlook, is the role of digital transactions in commerce. "Society is facing increasing demands, uncertainty, and volatility, and consumption is becoming increasingly digital," Boyle says. "As such, our customers are looking for ways to bring versatility, convenience, and security into their busy lives while extending their digital reach. Hyundai Pay is being introduced to the market at this time to ease our customers' daily journey needs and to enable a wide range of rapidly evolving use cases."



Hyundai Pay: Extending drivers' "digital reach."

Payments technology also has evolved in the past few years with advances in tokenization and the proliferation of cloud interconnectivity. Boyle, a former Visa Inc. executive who worked at Fiat Chrysler Automobiles, now known as Stellantis, and at Ford Motor Co., says her experience at Visa formed a critical understanding of in-car payments.

"During my time at Visa, I learned about the importance of building the right foundation for your technology stack that allows you to bring new tools to your customers over time and how developing that stack with maximum scalability in mind allows you to meet the demands of future use cases," she says.

"It's also important to focus on the user experience, from the back end to the devices you will need to accommodate use," she adds. "I also learned the importance of a sticky ecosystem and the importance of understanding the four-party payments model and the crucial connections within that payment ecosystem."

Hyundai is not alone in developing in-car payment services. In March, Mercedes-Benz announced Mercedes Pay+, an in-car service that uses a fingerprint sensor to authenticate transactions. Initially available in Europe, the service will eventually show up in U.S. models, though Mercedes-Benz did not share when that might happen. As with Hyundai Pay, the first payments use case for Mercedes Pay+ is parking.

—Kevin Woodward

THE MANY ADVANTAGES—AND DRAWBACKS—OF SOFTPOS

The recently developed ability to accept card payments on an ordinary smart phone, with no additional hardware, has electrified the payments industry. But the technology, known as SoftPOS, comes with complications that could slow its progress, a panel of experts warned recently.

SoftPOS, which as the name implies relies on specialized software to enable contactless card transactions, offers a seemingly endless list of possible applications for sellers of all sizes. "You can use it for line busting or popup stores. Every day, I'm surprised by a new use case," said panelist Bohdan Myroniw, sales director for the Americas at Preludd Payment Services, a France-based terminal company.

That advantage comes with a transaction-pricing bonus for merchants, too, and without the cost of card swipes or other hardware. "SoftPOS drives transactions [down] to a card-present rate, more like 2% [per transaction] than 3%," noted panelist David Leppek, president of Pace Software LLC. The panel discussion took place in August at MPC23, a payments conference in Atlanta.

"A SoftPOS transaction is a card-present transaction, allowing a whole new channel of card-present value,"

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added Thad Peterson, a senior analyst at Datos Insights who moderated the discussion.

Apple Inc. last year brought direct tap-to-pay capability to its iPhones, and soon processors like Stripe, Square, and Adyen had signed up for it. Earlier, a Santa Clara, Calif.-based developer called MagicCube Inc. had launched the same capability for Android devices.

But it's not just smaller merchants and the independent sales organizations that serve them that see advantages in SoftPOS technology. Larger companies, too, are interested in adopting it for their stores, panelists said. "There's a good opportunity at the enterprise level," said Owen Newport, chief executive at Canada-based Felix Payment Systems Ltd.

"Legacy terminals will be replaced by softPOS devices because it just makes sense," added Myroniw, who predicts an explosive market as older devices face replacement. "Merchants have to refresh their devices every three to four years. This time next year, you'll be seeing more of this demand, and it will just skyrocket."

Some of that demand has developed already, he indicated. For now, "what we're seeing is a mass scurrying to get deployments done," he said.

The top two merchant categories adopting the technology so far are restaurants and hospitality, noted panelist Kris Wells, a digital-acceptance executive at Discover Financial Inc.

But while SoftPOS may cut acceptance costs for merchants while spawning new opportunities for ISOs, its emergence is creating some complications, as well. Much of this lies in its complexity, some of the panelists said. "There's no magic—it's just as complex" as installing traditional terminals, said Myroniw.

Indeed, "complex" was a term that occurred several times during the discussion with respect to the adoption of mobile payment on commercial off-the-shelf devices (MPOC, for short), offsetting some of the virtues of the move. "MPOC is card-present and fully secure, but complex," acknowledged Peterson.

—John Stewart

MONTHLY MERCHANT METRIC

Jul'23 (Trailing-3 Months) Account Attrition and Growth

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

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

Metric Definitions: (Only use definitions related to an individual month's release)
Account Attrition - Total attrited accounts in given period divided by total portfolio active accounts from same period of the prior year

New Accounts Added - Total new accounts in given period divided by total portfolio accounts from same period of the prior year

Beginning	100.0%
Account Attrition	-21.4%
New Accounts Added	16.3%
Ending	95.0%

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NEW JERSEY LIMITS CARD SURCHARGING TO MERCHANTS' PROCESSING FEES

New Jersey has implemented a law that prohibits merchants in the state from profiting from credit card surcharging and requires merchants to clearly disclose any surcharges to consumers.

The law, which was passed by the New Jersey legislature in June and went into effect immediately upon New Jersey Governor Phil Murphy's signature late in August, allows merchants to levy a credit card surcharge but prohibits them from charging more than what they pay to process credit card transactions. The legislation was crafted with the help of CardX, a Chicago-based provider of surcharging software and compliance solutions.

The aim of the legislation, according to CardX founder Jonathan Razi, was to craft a law that protects consumers by capping surcharges and increases transparency while aligning with industry standards and surcharging best practices.

"Surcharging laws are being passed in some states, and what New Jersey lawmakers wanted was a law that allows merchants to pass along their actual processing costs to consumers, but not have the ability to use surcharging as a profit center," Razi says. "When it comes to surcharging, you want to be sure there are guardrails that protect consumers, but make sure those guardrails align with industry rules and best practices."

In effect, the new law will prevent New Jersey merchants from profiting at the expense of consumers who prefer to pay by credit card as opposed to cash, said state senator Gordan Johnson, one of the bill's sponsors.

CardX, which is part of the payment processor Stax, actively follows surcharging legislation around the country. While most of the proposed legislation does not become law, some bills, such as the one introduced in New Jersey, gain enough momentum to be voted on by the state legislation.

"When that happens, we like to get involved to provide industry perspective," Razi says. "The New Jersey law brings a standardized approach to surcharging with no consumer surprises, which strikes an excellent balance."

Adds Assemblyman Paul Moriarty, a co-sponsor of the bill, "[Now] consumers will learn about credit card surcharges before they complete a transaction, which will help them make an informed decision about choosing their method of payment."

Merchant surcharges can vary, though the card companies can regulate them. Visa Inc., for example, this spring issued a rule reducing its surcharge ceiling from 4% to 3%. Surcharges were illegal in all states until 2013, when class-action litigation opened the door to the practice in certain states. Now, all states but Connecticut and Massachusetts allow the practice.

—Peter Lucas

VISA MOVES BLOCKCHAIN INTO ACQUIRING

Visa Inc., which has been working with blockchain-based currencies at least since the start of the decade, last month said it is starting to expand its cryptocurrency services into merchant acquiring, largely for cross-border transactions.

The move, which Visa calls a "pilot project," involves the major merchant processors Worldpay and Nuvei for settlement to sellers in fiat currencies. It has already entailed processing "millions" of transactions across the Ethereum and Solana blockchains, Visa said.

As with most of blockchain projects mainstream processors and networks have embarked on so far, Visa's latest venture involves a form of cryptocurrency pegged to the U.S. dollar—Circle Internet Financial's USD coin. Such coins are seen as safer than tokens such as Bitcoin, which can be subject to wild swings in value.

Such stability is critical for the improvements the network hopes to make in cross-border commerce, Visa says. "We're helping to improve the speed of cross-border settlement and providing a modern option for our clients to easily send or receive funds from Visa's treasury," said Visa head of crypto Cuy Sheffield, in a statement. "Leveraging these new technologies [will] help improve the way we move money."

Stability of value is critical for merchant settlement, a point the two cooperating processors stressed. "Stablecoins like USDC are cutting-edge payments technology that can enable online businesses around the world to accelerate their growth," said Philip Fayer, Nuvei's chairman and chief executive, in a statement. Under the terms of the arrangement, both Worldpay and Nuvei will receive settlement in USDC and in turn route those funds, in USDC, to client merchants.

"This does seem very significant, involving some very major players in the card space." says Aaron McPherson, principal at AFM Consulting, in an email message to *Digital Transactions*. "The cross-border element is crucial, especially when dealing with countries like Australia that don't have their own reserve currency and therefore must use foreign exchange when handling cross-border payments."

September's development, while a key advance for the deployment of digital currencies, doesn't surprise some experts who argue that traditional networks can't avoid recognizing the increasing role the currencies are playing in global payments. "No question, Visa saw the writing some time ago, and know they have to play, or they'll lose the business," says Cliff Gray, a senior associate at TSG (formerly The Strawhecker Group), a payments researcher and consultancy, in an email message.

Overall, though, observers like Gray see Visa's news as a positive for merchant acquirers, while its attraction may be limited for other parts of the transaction chain. "For many acquirers, it's good news for expanding their product capabilities," he says. "To many others, there's still little or no appetite for [what they consider] bleeding-edge technology."

—John Stewart

THE CYBER OCEAN AND THE CHEMISTRY BEACH

BY GIDEON SAMID
gideon@bitmint.com

THERE ARE MANY ways to protect against a shark attack: certain wet suits, defensive tools, evasive behavior, and so on. Sometimes they help, other times they don't. What never fails is to walk on the beach. Safety guaranteed.

Same for the cyber ocean. If you walk on its beach, known as the chemistry beach, no hackers will harm you. Indeed, the cyber ocean has been populated lately with artificial-intelligence sharks that are so much more harmful than yesterday's sort.

AI technology can fake a remote presence so convincingly that all the sophisticated methods payments companies have been using to confirm identity are becoming useless before the emerging artificial-intelligence tool set. Vision, sound, behavior, even answers to personal questions—all can be imitated. Institutional accounts are being compromised. Individuals are fooled into sending money to a purported relative in distress.

One must admit that attack AI is a shark that threatens any swimmer in the cyber ocean. Analyzing this threat as an innovation challenge. A common cryptographic solution will not do. Cryptography is based on discrimination between a key holder and a non-key-holder. With AI, a fraudster convinces its target that it is the institution to which they must submit their key to be authenticated. The surrendered key is then used by the fraudster to steal its target's identity. Unfortunately, this works also with biometric keys. Indeed, AI defeats every safety measure we resort to today.

It is time to apply the InnovationSP platform (https://InnovationSP.net) for deep conceptual innovation: (i) store the secret off the digital realm; and, (ii) replace a static key with a key-fountain that spews new random key bits each time it is used.

These two abstract principles are implemented by using a chunk of matter. The storied physicist Richard Feynman insightfully commented, "there is plenty of room at the bottom," suggesting that the microcosmos is a huge container of data. Einstein's famous formula may be loosely rewritten as I = MC2 , indicating that even a tiny piece of matter contains an enormous amount of information (I) written in a language called chemistry—which is not digital.

Two parties, Alice and Bob, holding duplicates of a material lump can cross-authenticate each other. Alice will randomly choose an attribute of the material lump they both have a duplicate of, measure it on her lump, and ask Bob to measure the same on his duplicate. If the measurements agree, Alice is satisfied that she is talking to the holder of her own material duplicate. That's because both Alice and Bob read their data from a non-digital (non-hackable) source. They walk on the chemistry beach.

Modern nanotechnology enables us to write data in measurable attributes of a complex lump of matter. Preliminary steps have been developed by BitMint (U.S. patents 10,467,522; 11,062,279; 11,548, 309) to construct the "Rock of Randomness," which yields an astronomic quantity of measurable attributes—a key fountain.

This solution will allow holders of duplicates of a material entity to cross identify one to the others. The same technology can be used to authenticate various material entities, putting counterfeiters out of business. "Chemistry beach technology" will allow central banks to print banknotes denominated in much higher values than $100, should it be deemed necessary. Chemistry wallets have been designed to pay and get paid digital money on contact, even when the Internet is down.

Cyberspace removed distance as a barrier to human interaction. Now AI threatens this advantage with its ability to use distance to steal identities. Enter the chemistry beach, re-establishing cyberspace as a nice place to live, work, and pay. DT

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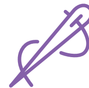

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HOW TO MANAGE GENERATIVE AI

BY BEN JACKSON

bjackson@pa.org

JULIET CAPULET SENT me an e-mail recently to offer me a marketing list for a conference that has nothing to do with payments.

I'm no gentleman of Verona, but I definitely recognize the Capulet name. However, I don't think Juliet is real. The e-mail's stilted wording, the mismatch of the product to my work, and the fact that I can't find any results on LinkedIn or the Web when searching for her e-mail make me think "Juliet" is a product of generative artificial intelligence.

Generative AI is a subset of AI that learns how to create new content based on data that the system has been trained on. Generative AI is supposed to get smarter as new data is provided and as human handlers refine the output.

Chat GPT brought AI into the mainstream and showed the possibilities and risks of the new tool. Juliet's e-mail is an early example of how businesses are getting excited about its opportunities.

For example, having AI create and execute e-mail campaigns might save time and money. But if the messages don't look like they come from a real person and read like a compilation of buzz phrases, they won't generate leads. While e-mail is cheap, a spammer reputation is expensive.

AI has been used for customer-service chatbots, fraud detection, portfolio optimization, and a variety of other applications. Generative AI adds new layers because it can take in queries and return original answers from raw data rather than a predefined set of possibilities.

Take customer service. Generative AI is different from non-generative AI because it can create new, human-sounding answers to questions, where older AI models use existing content and rules to describe, predict, or recommend something.

Even so, that doesn't mean it is the most effective tool. Indeed, Meg Porter, the executive vice president for Enterprise Transformation at Ubiquity, a customer-service company, says the technology's real advantage could lie behind the scenes.

"Generative AI has some exciting potential to make chatbots even smarter, but here's the thing. No matter how good technology gets, having a way for customers to talk to a real person can make their lives easier, and that's a big deal for keeping them happy and a returning customer," Porter said.

Instead, she said Generative AI might bring better insights after customer-service calls are over by analyzing good and bad customer interactions and identifying patterns. "This data-driven approach is way more efficient than slogging through reviews by hand, and it can uncover new trends in a massive dataset," she said.

Finally, regulations will affect the way payment providers can use AI. At the IPA's Compliance Boot Camp in Chicago in September, Eli Rosenberg, a partner at Baird Holm LLP, noted that companies should not expect that using AI will change the regulatory regimes that govern their products and services. "Regulations are technology-agnostic; they apply regardless of what you are using," he said.

While properly trained AI may be able to do tasks like analyzing disclosures or helping to draft first versions of documents, it cannot be left to do these things on its own. Generative AI creates false references and facts so often, the phenomenon has its own term: hallucinations. Expert human oversight is necessary to avoid costly problems.

Also, companies need rules to ensure customers and employees do not enter sensitive data into AI tools in ways that others can access. They may inadvertently compromise personal and corporate data.

Generative AI offers opportunities to increase the capacity of organizations. But financial-service providers need to make sure they don't end up in a star-crossed love for new tech. DT

THE CCCA—WHAT'S NOT TO LIKE?

Credit card interchange has come under assault, and not for the first time. Now, though, the stakes are higher than ever.

BY **ERIC GROVER**

THE CLEVERLY CRAFTED "Credit Card Competition Act of 2023" from Sens. Durbin, Marshall, Welch, and Vance is the latest salvo in a forever war against payments-industry fees, including how they're set and who pays them. It's part of an epic struggle in which the industry has been beating a managed retreat worldwide for decades.

The CCCA would require 32 politically unsympathetic credit card issuers, each with more than $100 billion in assets (like Bank of America, Capital One, Chase, Citi, U.S. Bank, and Wells Fargo), to offer merchants a routing choice between two networks for every credit card payment. The top ten covered issuers control roughly 80% of Mastercard and Visa credit-card purchase transactions.

The CCCA targets Mastercard and Visa, America's and the world's leading retail-payment networks, albeit without naming them.

The bill's sponsors aim to commoditize credit-card routing and thereby devastate interchange and network fees paid by merchants. Because it would harm issuers, smaller issuers that politicians of all stripes profess to love would be exempt.

Richard Durbin, Illinois's senior senator, didn't mandate interchange price controls in the CCCA, as the eponymous Durbin Amendment did for debit. He wants to sell his bill as pro-competition. Even Congress understands price controls aren't.

Incidentally, the CCCA would also authorize and invite the Fed to ban China's monopoly card network China UnionPay as a national security threat. That should bolster political support on both sides of the aisle.

A RACE TO THE BOTTOM

The United States is the most

Grover: The CCCA would weaken competition while stalling innovation.

competitive and, in some respects, the most innovative payments market in the world. "Card" networks, alternative payment systems, cash, checks, early-stage open-banking payments, Zelle, Cash App, and perhaps soon stablecoins and a Fed digital dollar, compete in retail payments.

With huge economics at stake, there's plenty of political theater.

CCCA supporters like the Merchants Payments Coalition and the consultancy CMSPI contend that, while the bill would reduce interchange, it wouldn't destroy popular general-purpose rewards. This is disingenuous, since they hope it will eliminate interchange and general-purpose rewards.

Critics, however, pillory the bill as an existential threat to cardholders, warning it would eliminate popular credit card rewards and compromise payment security.

So what's likely?

The CCCA would have a bigger and more immediate impact on the competitive dynamics of network routing than even the Durbin Amendment did. Network fees would be hammered, though the impact on interchange would be modest, if that.

The U.S. has four national credit-card networks: Visa, Mastercard, American Express, and Discover. Foreign networks China UnionPay and JCB compete in this market, albeit with smaller acceptance footprints. If the Fed rated them acceptable networks, either might use the CCCA to build a U.S. issuing beachhead.

The huge processors Fiserv Inc. and FIS Inc. own the national debit networks Star and Accel (Fiserv) and NYCE (FIS), and might have a strategic interest in providing credit card routing. However, credit card routing could quickly become a race to the bottom—which is the CCCA's intent. Networks could find themselves bidding and paying to route each credit-card transaction.

INTERCHANGE DYNAMICS

Virtually all U.S.-issued credit cards are signature-authenticated. Most merchants, therefore, would quickly enjoy routing choice off- and online for all U.S.-issued credit card transactions, so long as they accepted all U.S. credit card networks.

Australia's national debit network, EFTPOS, for many years paid merchants for debit transactions. If the CCCA required covered issuers to enable all national credit-card networks on each card, network and interchange fees would plummet and similarly go negative.

If only Visa, Mastercard, American Express, and Discover competed for credit-card routing, issuers could comply by enabling the combinations Visa and Amex, Visa and Discover, Amex and Discover, Mastercard and Amex, or Mastercard and Discover. But not Mastercard and Visa.

To win transactions, networks would have to be enabled by issuers and picked by merchants, or by processors on their behalf. To win issuers, networks would have to keep interchange as high as possible, reduce their own fees, and maximize acceptance while also adopting tools to boost volume and manage risk.

There would, however, be a countervailing force on the other side of the network. To win merchants, networks would want to lower interchange and network fees, provide better risk management, reduce payment friction, and generate incremental sales.

Network processing and licensing fees paid by merchants would come under enormous pressure, though issuers wouldn't care how low they went. Merchants want to pay less and would route over the least-expensive network. Thus would the CCCA turn credit card routing into a commodity, disincenting investment and innovation.

At the same time, interchange dynamics would be harder to game. And issuers and merchants could affect payment share. Critically, issuers could drop any network that cuts interchange to win merchants.

Merchants, too, could drop any network offering the worst economics. But they'd have little reason to. They simply wouldn't route transactions over that network unless it provided some other compelling benefit, such as card promotions producing incremental sales.

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The [CCCA's] sponsors aim to commoditize credit-card routing and thereby devastate interchange and network fees.

Indeed, if Visa, Mastercard, American Express, and Discover were the only networks competing for credit card routing, merchants could drop any network and not inconvenience domestic cardholders.

To avoid losing sales to tourists, business travelers, and online buyers using foreign-issued cards running on one of the global networks, merchants would loath dropping Mastercard or Visa.

Merchants would route based on the total cost of interchange and network fees. If interchange were higher, network fees would have to be lower. Unless they offered another compelling benefit, more expensive networks wouldn't win any transactions.

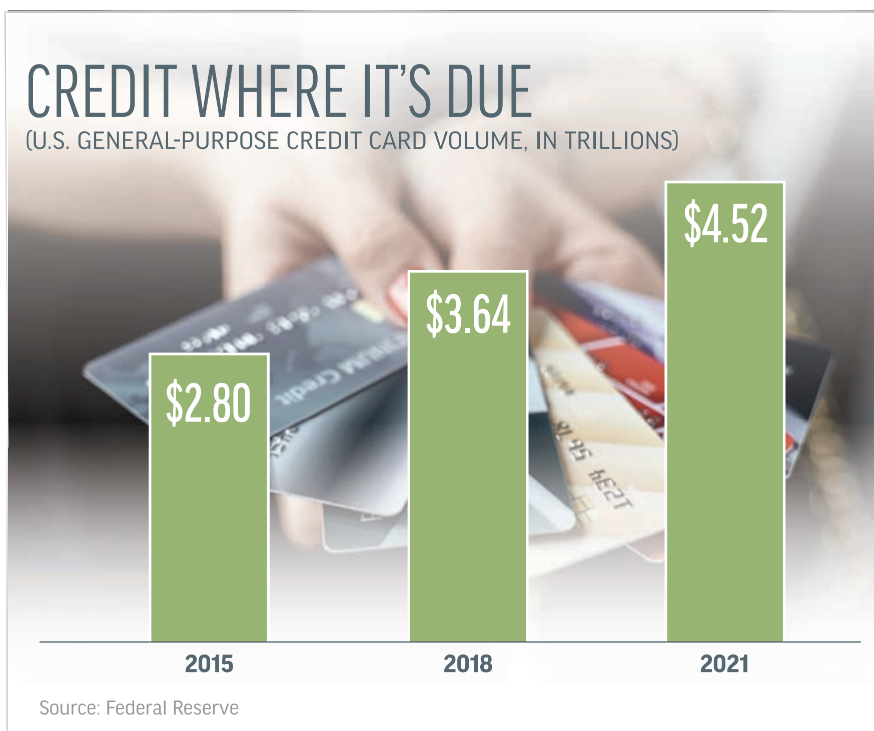
THE LINE OF SCRIMMAGE

Because interchange is higher, it has attracted the ire of regulators, politicians, and the merchant lobby more than networks fees have. However, the fundamental objection of the interchange critics—that the network enjoys pricing power and merchants pay more: asymmetric pricing —obtains for network fees as well.

Payment networks are two-sided markets. Interchange, generally paid by merchants, dynamically balances participation on both sides of the network, maximizing holistic value. Interchange funds a buffet of cardholder benefits, including fee-free accounts, issuer innovation, and challenger banks. Network fees are asymmetrical, as well. Acquirer domestic and cross-border network fees have outpaced issuer fees.

The merchant lobby and many regulators object to asymmetric pricing, with merchants bearing more payment-system costs than consumers. There are, however, plenty of two-sided markets where one side pays more than the other, and where asymmetric pricing maximizes value. Radio, for example, is free for listeners while advertisers pay. Internet search is free while advertisers pay. Bars sometimes offer women, but not men, free drinks.

Competition and dynamic prices set in free markets are the optimal way of allocating resources to maximize value. Innovation occurs in lightly, not heavily, regulated sectors. The CCCA would unnecessarily interfere in a highly competitive market that works well and would put a damper on innovation. And, it would advance the line of scrimmage for acceptance-fee foes' inevitable next assault on the payments industry. DT



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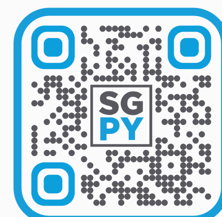

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HOW FEDNOW CAN SPUR NEW ANTI-FRAUD STRATEGIES

The Fed's new real-time payments platform will pose challenges for risk management. Here's how to cope with that.

BY **ROY PRAYIKULAM**

Roy Prayikulam is senior vice president for risk & fraud, RiskShield, at INFORM.

THE U.S. FEDERAL RESERVE made its FedNow instant-payments service live in July. It enables a faster flow of cash for companies and individuals, improving the overall flow of money through the U.S. economy.

But fraudsters are rubbing their hands, grinning from ear to ear in anticipation.

That's because the service is now running online, along with exponentially growing amounts of instant payments, instant paychecks, instant bill payments, and instant government payments. Banks and financial institutions realize that if they haven't implemented robust anti-fraud strategies, they had better, and soon.

The "instant-payments era" is now official with the backing of the U.S. Federal Reserve. The expectation is that as more banks choose to use FedNow, the need for more advanced anti-fraud systems implementations is ever more dire.

While most financial institutions are investing, or have invested, in some sort of anti-fraud system, many of them can't keep up with real-time transaction activity. Or they aren't flexible enough to consistently stay ahead of new fraud patterns and financial channels as they emerge.

Of the 35 early FedNow adopters, two of the largest U.S. banks, JPMorgan Chase and Wells Fargo, are running the service for instant transactions. In addition, there is a myriad of service providers that support payment processing for financial institutions, as well as financial institutions serving as settlement agents and liquidity providers, in the mix.

IMMENSE RISK

Outstanding questions regarding FedNow relate to mitigating risk from fraud and whether banks will charge for the FedNow service. For its part, the central bank anticipates that as this service evolves, becoming more sophisticated, so will the need for anti-fraud strategies.

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This is especially true as the service becomes integrated into banking and credit union apps and Web sites. In fact, some Fed officials and other experts in instant payments are predicting FedNow could circumvent the need for a central bank digital currency.

According to Juniper Research, the number of instant-payment transactions will rise from 97 billion in 2022 to over 376 billion globally by 2027, which represents an astounding 289% increase. This increase over the next five years illustrates how quickly the banking transformation process will be realized.

As money moves faster, though, regulators haven't adapted at the same speed. So technology innovation is filling the gap. One example is the development of artificial intelligence.

Partly due to the pandemic, the United States' long-term movement toward instant payments accelerated faster than the banking systems' ability to keep up. Fulfilling the demand from merchants and consumers for real-time transactions opened up a black hole of immense fraud risk.

Unfortunately, it has become clear that financial institutions' capability to process vast volumes of data swiftly— without the aid of a fraud-prevention solution enabled by artificial intelligence (AI)—will be insufficient to protect either the institutions or their customers from fraud.

THE HYBRID APPROACH

Fintech is constantly evolving as banks look to deliver digital conveniences and options for consumers. According to Juniper Research, cross-border transactions will go from 631 million payments globally in 2022 to over 6 billion in 2027. This development means the handling of rapidly inflating volumes of data is crucial.

All constituents involved, and especially those related to instant payments, require reliable fraud-prevention strategies to precisely process immense volumes of transactions in real time. The accelerated pace of processing doesn't allow much time to scrutinize potentially fraudulent activity—something that has become one of the leading concerns of the banking community.

For some time now, bank accounts have been cybercriminals' key targets. Using such tactics as phishing and spear phishing, attackers have become increasingly clever in obtaining vital information on their victims. They later exploit the victim's information to gain access to their bank accounts, either directly or by tricking victims into making transfers into the attackers' accounts willingly.

Multi-channel fraud is becoming the most favored type of fraud among criminals who divvy up their attacks across multiple channels. For example, when attacks occur across common channels like online banking, mobile transactions, Single Euro Payments Area (SEPA) transfers, and customer-service contacts, many of the fraud-detection mechanisms that don't leverage AI are often challenged with identifying complex patterns. That's because their focus usually is on the user behavior of a single channel, not a multitude.

Prayikulam

Prayikulam: "Hybrid AI, with its powerful detection engine and comprehensive approach, is a missing piece of the puzzle for navigating FedNow's challenges."

These types of payment-monitoring platforms often prove to be ill-equipped to detect multi-channel fraud attacks. This is why financial institutions are turning to more robust hybrid anti-fraud systems that can use AI for faster and more thorough detection.

Mitigating fraud effectively requires the use of real-time monitoring solutions. To counteract various forms of fraud without impeding the speed of transactions—and, ideally, to halt the fraud without financial loss—most banks are now turning to hybrid AI fraud-detection solutions.

To be effective, such systems use advanced fuzzy logic and intelligent profiling for a human-like approach towards data analysis to flag suspicious activities in milliseconds. With AI integration, it is also beneficial to have capabilities to customize fraud-detection rules and run simulations to conduct extensive testing before deployment.

START NOW

To keep up with the speed of FedNow, advanced analytical and reporting dashboards are recommended to provide a quick overview and analysis. Hybrid systems continuously track user behavior in real time and analyze it for any irregularities, with machine-learning methods playing a significant role.

However, it is important to keep in mind that the effectiveness of these solutions is primarily dependent on the maturity of the machine-learning models they rely on. Traditional models typically need thorough training before they can be deployed with a reliable accuracy rate—unfortunately, time that banks don't have.

Hybrid AI technology provides a comprehensive approach that enables a more profound and real-time analysis of transactional data, mitigating risk amid the high-speed conditions of instant-payment systems.

Instead of relying solely on data-driven machine-learning methods, hybrid AI technology blends machine learning with knowledge-driven techniques like fuzzy logic-based scorecards and watch lists, as well as dynamic profiling.

This blend allows for effective fraud detection even when data are complex or imprecise. The great advantage is that the solution can be effectively deployed practically from the very beginning.

SUMMING UP

In summary, in this new era of banking, the financial industry must keep up the pace because:

1. Instant payments are on a rapid ascent, with global transactions expected to exceed 376 billion by 2027;
2. There are more substantial real-time fraud risks than ever before—a challenge current banking systems must solve;
3. Hybrid AI technology is one of the few solutions on the market to solve complex challenges with fraud;
4. The need to conduct profound, real-time transactional data analysis, and detect fraud, even under high-speed conditions, is critical;
5. Deployments of Hybrid AI technology doesn't require an extensive training period, meaning it can be effectively deployed from the outset.

As the need for innovative, real-time solutions to fraud prevention becomes increasingly clear, Hybrid AI, with its powerful detection engine and comprehensive approach, is a missing piece of the puzzle for navigating FedNow's challenges. These are exciting times, but keep in mind the importance of being fully prepared to tackle the challenges of fraud while reaping the rewards of instant payments. DT

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DIGITAL TRANSACTIONS
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What's next for FEDNOW?

Now that FedNow is available, the real work begins. But will the new system compete or collaborate with existing real-time networks?

BY KEVIN WOODWARD

If there's any easy part to developing a new payment system, it might be the stuff that happens before it debuts. Sure, it takes time and expertise, but the process can be controlled and moved along at a chosen pace. Once it's out there, the tough part of getting users, working out kinks, and figuring out the next steps intercedes. **Then, its evolution begins.**

FedNow, the real-time payments service from the Federal Reserve, launched with 35 participating institutions on July 20, almost 13 years after the Fed's same-day automated clearing house settlement window debuted and eight years after the Fed released its framework for how faster payments might be structured in the United States. Potentially, more than 9,000 financial institutions are eligible for FedNow enrollment.

With the long-awaited launch done, FedNow's next steps are expansion and refinement. It may help to recall that in 2011, eight months after the ACH same-day settlement debuted, only a handful of banks had opted for the service. Same-day ACH volume was nearly $1.2 trillion in the first half of 2023, according to Nacha, the ACH rule maker.

All depository financial institutions in the ACH network—numbering approximately 9,000—can send and receive same-day ACH payments, Nacha says.

Similarly, expansion of the FedNow network is at the top of the to-do list for most advocates of FedNow and real-time payments.

"FedNow is in the beginning stages of its lifecycle, so there is a lot of growth needed over the next 12 months to ensure that it's regarded as a legitimate payment option alongside more well-established methods," says Brad Goodall, chief executive and co-founder of Banked Ltd., a real-time payments services provider based in London with U.S. offices in Palo Alto, Calif.

Growth depends on success—and most observers have strong notions of what that will look like for networks like FedNow. "For instant payments to be successful in the United States, the networks need to have as many participants as possible," says says Scott Anchin, vice president, operational risk and payments policy at the Independent Community Bankers of America, a Washington, D.C.-based trade group.

"Financial institutions, consumers, and businesses need to understand how instant payments can be used and how to prevent, detect, and mitigate fraud," Anchin continues. "And transactions need to efficiently cross networks, so customers do not need to worry about whether they are transacting on FedNow or RTP."

RTP, which launched in 2017, is the real-time payments network from The Clearing House Payments Co. LLC, a New York City-based payments company owned by 22 big banks. It hit 1 million transactions on a single day on Sept. 1.

"The question of FedNow is, is it going to provide a lower barrier of entry for small entities," says Felix Shipkevich, founder and principal of Shipkevich PLLC, a New York City-based law firm and special professor of law at Hofstra University. "The question is not, how do you get to 300 but to 1,000 or 3,000 financial institutions."

The Fed's online list of FedNow participants, as of Sept. 1, showed 56 participating financial institutions, 20 certified service providers, and 15 settlement agents and liquidity providers.

Closely aligned with expansion, FedNow's next steps will likely incorporate reaching smaller banks and credit unions, demonstrating the necessity for real-time payments, refining its capabilities, and, much further along, perhaps interoperability with RTP, observers say. The Federal Reserve declined to comment for this article.

‘The Biggest Bottleneck’

Getting more FedNow users involves getting the word out and educating financial institutions, especially smaller ones that may not have explored real-time payments options before.

“The key concern on everyone’s mind is time—how long will it take to get to ubiquity or at least significant volume,” says Miriam Sheril, head of product at Form3, a London-based payments provider. The United Kingdom has had a faster-payments service since 2008.

“The use cases and volume can’t really pick up until that [ubiquity] happens. The go-live is huge because it’s obviously the first step and the biggest bottleneck in the way of that adoption growth,” Sheril says.

The dilemma is that many banks, she says, are still skeptical. “They’re asking how long will it take and do they really need to spend their budget and jump on this bandwagon right now. I don’t think that anyone questions that long term it will get there.”

ANCHIN: “TRANSACTIONS NEED TO EFFICIENTLY CROSS NETWORKS, SO CUSTOMERS DO NOT NEED TO WORRY ABOUT WHETHER THEY ARE TRANSACTING ON FEDNOW OR RTP.”

“It will be very interesting over the next year to watch the ramp-up in adoption among financial institutions,” says Bridget Hall, ACI Worldwide Inc. leader of real-time payments for the Americas.

“The market reaction appears to be quite positive, generating interest among financial institutions looking to connect to the FedNow service as well as from businesses across multiple industries looking to see how they can use FedNow,” Hall continues. “It’s exciting to see businesses begin recognizing the value of an instant-payment service.”

‘Extremely Positive’

What will it take for businesses to say yes to FedNow? Customer demand will, perhaps, be a big factor. It might start with a business wanting to pool funds into a single account or enable an irrevocable way for consumers to pay bills.

Another factor will be educating financial institutions, hence moves by the Fed such as a FedNow webinar the regulator held in August and a major Fed presence at Smarter Faster Payments 2023, the Nacha-organized conference for the automated clearing house industry, held earlier this year.

One banking segment where the FedNow message appears to be resonate is among community bankers.

“The market’s reaction to FedNow’s launch has been extremely positive, especially along community banks,” Anchin says. “ICBA and community bankers across the country have long appreciated the Fed’s unique ability to level the playing fields for community banks.”

FedNow comes five years after the first wide-scale U.S. real-time payments network debuted more than five years ago. RTP and FedNow are expected to aid each other in fostering knowledge of real-time payments and building the user base.

“FedNow will absolutely grow the volume and value of instant payments,” Anchin says. “While RTP already can reach a significant number of deposit accounts, FedNow will extend the reach of instant payment capabilities to financial institutions that could not or did not want to join RTP.”

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For its part, the RTP network will benefit from FedNow. "What we found more than anything was additional positive reaction to RTP," Elena Whisler, chief client officer at TCH. Having another national provider generates more interest. "It has been beneficial," Whisler says. "It only brought more volume, more participants. More banks and credit unions are interested in real-time payments." On July 22, the RTP network surpassed 500 million real-time payments since its start.

Whisler and her colleagues sell RTP to financial institutions, and many of them are considering both RTP and FedNow. "Most financial institutions see it as a need to receive on both," she says. "It might depend on their client base. Most of [those] we speak [with] want both. They want to make sure they can receive money in the way their customers send it."

SHERIL: "NOW THAT FEDNOW IS LIVE, [RTP AND FEDNOW] WILL BOTH COLLABORATE AND COMPETE TO DRIVE THE BEST OUTCOMES FOR THE MARKET AT LARGE."

'Collaborate and Compete'

Most financial institutions use a third-party service provider to access services like real-time payments. At FIS Inc., a Jacksonville, Fla.-based services provider, many clients are opting for multiple providers, says John Wilson, product manager for instant payments.

"Each network offers unique capabilities and support for growing use cases such as government payments, support for other 'instant-like' settlement, expansion into cross-border payment and others," he says. "Institutions see this as an opportunity to choose their path to better serve the markets they pursue."

The choice in real-time payments services is generating more interest among financial institutions, says Justin Jackson, senior vice president and head of enterprise payments at Fiserv Inc., a Brookfield, Wis.-based core processor and payments provider.

"Many are looking for guidance as to whether it's necessary to connect to just one of these networks or both," Jackson says. "Generally, our recommendation to financial institutions has been that connection to both networks is going to be important, at least in the near and intermediate term."

While some bankers have questions about the necessity of adding a real-time payments capability, Jackson says the momentum in the market "seems to show that won't be a challenge for long."

Enrolling in both RTP and FedNow can help FIs support their clients. "The market is really big with very large banks and rather small ones on both ends of the spectrum," Sheril says.

"Having two operators means a constant give and take to ensure equity, fairness and diversity in pricing, features, standards, [and so on]," she continues. "This is how the U.S. market works and it's not a bad thing. It does at times slow us down—but overall, it works out in favor or the entire market."

"Now that FedNow is live, the two services will both collaborate and compete to drive the best outcomes for the market at large," Sheril continues. "It's what we've seen in the high value and retail space—and I believe this is what we will see for instant payments as well."

'Quick and Seamless'

Eventually, the need to enroll in both services may diminish if an acceptable level of interoperability

can be achieved. For now, FedNow is focused on expansion, with interoperability a possibility.

"Both FedNow and RTP have comprehensive feature sets, including request for payment functionality. While there is certainly room for enhancements, over the next year, the Fed and TCH should focus their efforts on three areas: adoption, education, and interoperability," the ICBA's Anchin says.

"Until the networks achieve technical interoperability, financial institutions will have to make a choice, manage two connections, or rely on service providers to bridge the gap and route transactions across networks," he says. "Some financial institutions may choose to sit on the sidelines while the market sorts itself out. Both RTP and FedNow use industry-standard ISO 20022 messaging, which paves the way for the networks to interoperate."

Certainly, there is a level of competition between RTP and FedNow. TCH and the Fed have a long history of complementary but competing products. Both have ACH and wire services, for example, Whisler says. "We're natural competitors in the field with the overlay of being collaborative partners."

The big question for many financial institutions, once they understand the value of real-time payments, is how to link to FedNow, says Fiserv's Jackson. "The most frequent question we hear from financial institutions has simply been, 'How can we get connected?'"

Another question: how long will it take for FedNow to reach most financial institutions. "We've heard some questions from other stakeholders about how long it might take for FedNow to achieve ubiquity, but the momentum we've seen in the market seems to show that won't be a challenge for long," Jackson says.

Expanding the number of enrolled FIs is paramount, observers agree. From there, the rest will likely follow. Currently, almost 200 financial institutions have signed agreements to use FedNow, according to an *ABA Banking Journal* interview with Ken Montgomery, FedNow's program executive.

"The instant-settlement function of the FedNow rail offers an attractive draw for financial institutions and end users alike," says FIS's Wilson. "Consumers and commercial clients are increasingly demanding [a] quick and seamless transaction process that allows them full access to these funds."

WILSON:
"THE INSTANT-SETTLEMENT FUNCTION OF THE FEDNOW RAIL OFFERS AN ATTRACTIVE DRAW FOR FINANCIAL INSTITUTIONS AND END USERS ALIKE."

Adoption and Volume

With the launch out of the way, the next step includes refinement. The addition of layers that will help to catalyze and open up the industry is key, says Form3's Sheril.

"FedNow has shared their plans to focus on fraud controls and directory services—both key things that will help banks to implement more and more use cases," she says. "RTP is doing similar things—as they just announced their expansion of the [request for payment] flows." (For more on request for payment, see "How to Tap Real Time's Potential," September).

"All of this will help to not just drive adoption ... but volume and use cases—which obviously is when we will see the tides turn and instant payments in the U.S. take off," Sheril adds.

As ACI's Hall says, "Launching FedNow isn't the last step in the journey of realizing instant payments in the US. We'll continue to see advancement on the use of instant payments." DT

HOW MERCHANTS—AND SOFTWARE DEVELOPERS—ARE LEVERAGING EMBEDDED PAYMENTS

Embedded payments are quickly becoming table stakes as developers look to expand their reach to merchants and small businesses.

BY **PETER LUCAS**

IT'S NO WONDER embedded payments are quickly moving into the mainstream. After all, small and mid-size businesses are increasingly looking to deliver better and better experiences for for customers within their app or software platform.

For these merchants, embedded payments provide consumers the ability to pay without being redirected to a third-party site at checkout. It's meant to be a simple, streamlined process that speeds the purchasing process, reduces friction, and improves customer satisfaction by embedding the purchase within the act of shopping.

What's more important, embedded payments—a term for payment solutions natively built into an app developer's or fintech's software—are said to give merchants more control over payments flows. That's because they can embed payment capabilities across a variety of digital touchpoints beyond the merchant's app. Such touchpoints can include micro-stores on a social media site, a marketplace, or within an email.

Restaurants, for example, can embed payments in their online ordering and delivery systems, while retailers can weave payment capabilities into product pages.

To enable embedded payments, consumers need only enter their card- or bank-account information once. With this information stored in the app, it is automatically billed each time the consumer clicks the app's pay button. Payment-related friction is said to be minimized as the interaction required to complete a transaction is reduced.

It's a recent trend ("The Rise of Embedded Payments," January), but embedded payments are now fast penetrating merchant categories that the digital revolution previously couldn't reach. "By freeing transaction enablement from processing, payments can be incorporated into workflows and processes that were

previously unable to incorporate payments," says Thad Peterson, a strategic advisor at Datos Insights, a research and consulting firm.

Peterson

Peterson: "Payments can be incorporated into workflows and processes that were previously unable to incorporate payments."

FIGHTING FRICTION

The mobile apps from Netflix and Uber represent two examples of what Peterson is referring to. Netflix customers, for example, can link their payment details directly to their account, which spares them from having to enter payment information each time they need to renew their subscription.

Meanwhile, Uber customers who have stored their payment information need only open the Uber app, enter a tip for the driver, and click the pay button.

Other potential applications for embedded payments include payments for parking from within a map application, such as Google Maps, and enabling purchases of avatar enhancements within iGaming apps.

"The momentum behind embedded payments is being driven by the customer experience and the need to reduce friction around digital commerce," says Todd Pollak, chief revenue officer at Oakland, Calif.-based Marqeta Inc., a card-issuing platform. "Merchants and businesses are realizing that, with embedded payments, they can take control of the payment experience and own all aspects of the customer's experience, rather than leaving payments to a third party."

Redirecting consumers out of an app to the merchant's processor to make a payment adds another step to the payment process which increases the time it takes to complete the transaction, even if it means only a few seconds.

It can further increase friction as consumers may be required to enter their payment credentials each time they make a purchase, as opposed to having their credentials saved in-app. With embedded payments, the entire customer experience takes place under one roof, which proponents say helps boost customer loyalty.

"Reduction of friction is a core reason for embedding payments. To us, that means payments with no redirects whatsoever, irrespective of the number of beneficiaries in the flow of funds," says Hersh Mansukhani, vice president of platforms and embedded payments at Fiserv Inc.'s Carat commerce platform.

Reducing friction at checkout is a big deal, but another key reason fintechs and app developers are embedding payments into their platforms is that the technology gives their platforms a competitive advantage. A recent survey by BlueSnap Inc., a payments-platform provider that supports embedded payments, reveals that 48% of the executives at platform providers that support embedded payments say the move has given them an advantage over their competitors.

In addition, 35% say including embedded payments in their platform increases client retention, while 34% reported an increase in new clients. The survey, conducted by Gartner Peer Insights, was based on interviews with 300 executives at fintech and software providers globally.

THE 'WHITE LABEL MODEL'

"With embedded payments, platform providers can [more effectively] reach the mid-market," says BlueSnap chief executive Ralph Dangelmaier. "Most platform providers serving the mid-market are not really in a position to build the piping needed to become a payment facilitator or payment service provider. Baking payments into their platform gives them a long runway to service this market."

Payment facilitators allow customers to accept electronic payments using their platform through a master merchant account. Examples of payfacs include Block Inc.'s Square merchant-processing unit and Stripe Inc. Now, payfacs have become a key technology provider for embedded payments.

"Think of it along the lines of the Amazon Web Services model. It's cheaper to buy the infrastructure from a company like us than it is for them to build it on their own," Dangelmaier says. "Plus, the cost to get licensed as a payment facilitator is a barrier in itself [to many platform providers]. That alone makes the white-label model for embedded payments a no-brainer."

There are some 1,600 vertical markets where app developers and platform providers are now embedding payments through payment facilitators to improve the customer experience, according to Todd Ablowitz,

Dangelmaier

Dangelmaier: "The white-label model for embedded payments [is] a no-brainer."

co-founder and co-chief executive for Infinicept, a major technology provider for payfacs.

"A lot of software companies are looking to own payments, but in general, payments are hard to do, and many software companies tell us they are not yet ready to be a payment facilitator on their own," Ablowitz says. "We provide a pathway for software companies to become a payfac even though they may not be ready to become a payfac right now, and may never be ready."

The "as-a-service" model has significantly changed the economics of embedded payments for software developers, which is accelerating adoption of the embedded option. "Cloud computing has significantly lowered the cost of entry to embedded payments for software companies, and in many cases the solutions quickly pay for themselves," says Marqeta's Pollak.

Nevertheless, the cost of entry to embedded payments varies by use case, especially as the technology around embedded payments changes. "New technology always needs to be supported, and while it is becoming more efficient to enable embedded payments, that doesn't necessarily mean the cost of the technology is going to be lower, especially as needs expand on a case-by-case basis," Dangelmaier says.

Another benefit for software developers from embedding payments is that it opens the door to additional revenue streams, such as fees earned through embedded financial services, such as in-app lending services and in-app buy now, pay later loans.

"Many software companies earn subscription revenue directly from their customers, but what if they could capture additional revenue every time their customers make a sale or pay a supplier," says Lexi Fox, chief marketing officer and co-founder at Maast, a wholly owned subsidiary of Synovus Bank that provides embedded finance. (The company's name stands for Money-as-a-Service.)

'ONE CLICK TO NO CLICK'

More advanced embedded-payments solutions also offer business-banking services seamlessly from software-as-a-service (SaaS) platforms. This makes embedded payments the foundation for broader embedded-finance solutions.

"The technology will continue to push the edge of what's possible to help software providers unlock new revenue streams while providing powerful new solutions to their customers," says Fox. "An end-to-end financial services strategy can help create value for your customers by making the right products available at the right time, and by making those products easy to consume."

With new types of tender and more digital channels offering the ability to make purchases also emerging, the complexity of the payment ecosystem is only expected to increase over the next few years.

Such a scenario bodes well for embedded payments, observers say, as it enables software developers and platform providers to offer the technique to merchants despite the increasing complexity of the payments landscape, according to Peterson.

"The value [embedded payments] can provide customers and the merchants that offer them is significant, particularly on platforms and within marketplaces," Peterson says in a report entitled "Embedded Payments: The Next Step in the Evolution of Payments." "The migration from one click to no click is a milestone in the evolution of payments, and merchants will find new ways to use the capability to generate incremental sales and increase customer satisfaction." DT

Ablowitz

Ablowitz: "A lot of software companies are looking to own payments, but in general, payments are hard to do."

THE NEXT (R)EVOLUTION IN EMBEDDED SERVICES

Here's why more merchants and service providers are starting to embrace embedded finance.

BY **TOM BELL**

Tom Bell is chief executive of Maast.

THIS YEAR MARKS the 25th anniversary of PayPal. While e-commerce existed in some form as early as 1979 (once any new technology arises, it's not long before someone monetizes it), PayPal changed the game for small- and medium-sized businesses (SMBs). Sellers on marketplaces like eBay could instantly close transactions instead of waiting for a check to arrive through the mail. So, from 1998 to 2000, eBay's user base grew a staggering 2,400% to 12 million.

Since then, digital transactions have evolved in lockstep with the growth of the Internet. Today's broad array of embedded-payments solutions allow small and medium-size businesses to collect from customers seamlessly on their platforms. Bain & Co. estimates embedded transactions exceed $2.6 trillion per year worldwide.

But now the industry faces the compelling question of how to continue applying this expertise to keep aggressively growing. The answer is embedded finance. Imagine the possibilities opened by introducing more advanced services, including direct debit automated clearing house, business checking and savings accounts, and more.

REMOVING FRICTION

Embedded finance poses a challenge: how to continue to remove friction from money in motion.

Embedded payments have closed the gap between the customer's desire to purchase and their ability to do so. When it's easy for the customer to buy, businesses don't have to work so hard to close the sale. They can focus on adding features, improving the customer experience, and providing more safety and security.

So where is the next friction point downstream? The natural answer is that it lies between the payment processor and the financial institution. Business owners need to move money between their business platform and their financial institution, from which they then often put money back into the software to pay vendors or manage inventory or perform any number of other business activities.

Could embedded finance simplify this flow? Embedded business checking offers a solution. Service providers keep money in their ecosystem and offer a valuable service. Customers can deepen their relationship with the service provider, simplify their business operations, and diversify their banking relationships. It's a true win-win.

A PROVING GROUND

Software providers, sometimes called independent software vendors (ISVs), present an ideal proving ground for embedded finance to flourish. They have an appetite for disruption, as well as established, trusting relationships with their customers (for example, SMBs). Boston Consulting Group reports that many SMBs rely on the advice of their business software providers as they make key decisions about how to run their businesses. Indeed, they depend on this source more than they do on industry publications or their bank.

Software providers are also eager to expand their solution set and have the technical know-how to quickly embed financial services into their platform. Every new solution that keeps customers within their ecosystem brings them one step closer to becoming their industry's super app. Andreessen Horowitz estimates embedded finance can help software providers generate more cash flow by a factor of 2x to 5x. It's hard not to get excited.

So, the next logical question is…how to do it.

Embedded payments leverage a single, existing infrastructure. The front end of this infrastructure continues to evolve rapidly, but the back end hasn't changed much in decades. In contrast, embedded finance combines multiple legal and regulatory regimes across payment acceptance, banking, payables, accounting, and more.

The right embedded-finance partner brings "whole product" to the partnership. This partner is eager to help manage the fraud, identity theft, and chargeback risks associated with accepting payments.

A strong and effective underwriting process approves customers quickly and empowers underwriters to work with flagged customers to get an approval. If you're evaluating embedded- finance partners now, ask them how quickly they approve the average customer and how often they resolve flagged clients.

The right embedded-finance partner also won't hand you a bunch of application programming interfaces and wish you well. They'll know that the hardest thing to change is existing customer habits, and they'll have a plan to drive adoption among your customer base.

IMAGINING THE FUTURE

Thoughtful data collection and analysis can provide life-changing results and supercharge business growth when applied alongside embedded finance.

The possibilities are bounded only by one's imagination. Here are just a few:

- A car-repair shop software provider notices its customer's schedule is consistently full and extends a much-needed pre-approved line of credit to add another bay;
- A music store point-of-sale provider recognizes instrument repairs are the most profitable line of business and submits the names of five local, experienced instrument artisans looking for work to increase capacity;
- A dental-office management platform sees that the owner is nearing retirement age and proposes an employee stock ownership program (ESOP), allowing the dentist to cash out and reward his employees with equity in the business.

Indeed, such services as business lending, human resources, accounts payable and receivable, and succession planning may just be the beginning. Such insights and offers deepen customer relationships and create the potential to generate income.

Embedded payments succeed because they offer an essential service to businesses and a seamless experience to customers. Now, embedded finance is a bold new step forward, Think of it as money-as-a-service. DT

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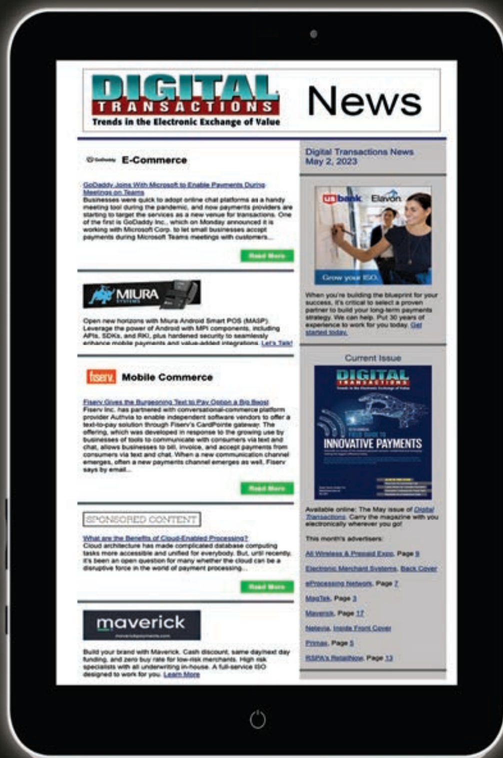

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