

PYMNTS

EXECUTIVE INSIGHT SERIES

The Next
Years

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Reinventing Payments: Trends Converge and Emerge Amid Constant Adaptation

Looking back on 2022 is a lesson in expecting the unexpected.

COVID-19 concerns and supply chain shortages were unceremoniously pushed aside by sky-high inflation and a different kind of crisis: one that triggered months of nonstop sales events from Amazon to Walmart and everyone in between, and a great unloading of excess goods of 2021.

Against that backdrop, few foresaw the record shopping demand unleashed from Black Friday to Cyber Monday 2022 as the bargain-minded were motivated by deals.

"It goes to show you don't ever know," as the Grateful Dead foresightedly sang, so PYMNTS turned to a raft of experts whose gift it is to know what's in the cards before they're dealt.

Looking for the recurring themes among power players, the push to real-time intensifies with what one executive called a "once-in-a-generation opportunity for new [payments] offerings" that will drastically accelerate money mobility — for good and ill.

With FedNow's debut in sight, RTP is the new rail that stands to unleash innumerable offspring, fulfilling the promise of true instant money — and ushering in the era of fast fraud.

Combatting that will be battalions of digital identity verification players now in a furious test-and-learn mode, already battling with cyber-foes that operate like multinationals.

As legacy gives way to the future, some old stalwarts will not go gently into that good night. The paper check will still be here in 2025, for example, but will large accounts payable (AP) teams?

Automation AP is one of the areas lined up for profound change as companies learn the efficiencies of letting application programming interface (API) algorithms handle mushrooming payment volumes that have gotten too complex for humans in many ways.

While time-traveling, many believe a crypto spring will follow the crypto winter of 2022, especially in B2B payments where digital asset exchange seems better suited. That's as the consumerization of B2B payments rolls on, making B2B transactions easier and cheaper.

Despite the pasting Alexa took late in 2022, the Connected Economy is less like a train that can be easily derailed and more like an airline that goes everywhere, all the time. The stellar growth of at-home healthcare and health-monitoring wearables attest to its future.

Some see the emergence of a "translation layer" akin to ATM networks as helping achieve this, acting as the middleware between a multitude of payment options and their use cases.

Working capital access is undergoing major innovation: bank-issuer-FinTech linkups will seem commonplace 36 months from now. On a related note, buyer-supplier payments are already experiencing what's possible as instruments like commercial cards level the equation.

As new disbursement paradigms arise from lessons learned during the past three years, it promises a better, faster and more secure future for money mobility without the complexity. That goes double for gig worker payouts, the exploding use cases for embedded payments everywhere and the integrations needed to bring it all to fruition.

Not completely unlike paper checks, resilient credit and debit cards aren't going anywhere. Still, the tokenization of cards is rising fast, also ushering in the era of real-time, for real this time.

Regulations on everything from buy now pay later to crypto to RTP will increasingly govern the payments landscape as governments move to control some of the wild west vibes in finance.

Identity will become a kind of currency over the next three years as the sector improves at proving we are whom we claim to be and starts predicting our intent as consumers. That will usher in the era of hyper-personalization and a whole new consumer experience.

What activities and investments are you thinking about over the next three years that will push digital transformation forward in your industry? Perhaps the better wording would be, is there anything you're not doing to transform payments over the next three years?



REAL-TIME PAYMENTS SHAPE **COMMERCE'S** NEXT THREE YEARS OF EVOLUTION

hree transformations will shape the trajectory of the global payments infrastructure business over the next three years, ACI Worldwide Chief Product Officer Debbie Guerra told PYMNTS.

First and foremost is the transition to real-time payments, as Fed-Now looms for a May 2023 launch.

Real-time payments, she said, "create an unprecedented operational complexity for participants — but it also provides a once-in-a-generation opportunity for new [payments] offerings" across financial institutions (FIs), processors, central banks, merchants and billers.

And against that backdrop, she said, payments are rapidly becoming an area for strategic value creation for all manner of enterprises.

To optimize that value, she said, it's becoming ever-more critical to modernize and digitize the "delivery model" for payments solutions that enable businesses and banks to meet the demands of digitally-forward consumers at scale.

"The demand for public, cloud-based capabilities is really accelerating," she said.

ACI Worldwide, for its part, has been broadening its public cloud offerings and enabling real-time payments in more than 35 countries.

The growth of real-time payments, said Guerra, is spurring a wider adoption of embedded payments, where money movement is built into all sorts of non-financial interactions.

"If you're a merchant today, you want to be able to offer the payment methods that your consumers want to use and in the ways in which they want to engage ... no matter if it's through their cellphone, their mobile device, whether it's in person or across different modalities," Guerra said. That flexibility is especially critical as younger, tech-savvy individuals flex their economic and financial firepower. They're the consumers who are most at home with peer-to-peer (P2P) payments and using digital conduits to get things done. Millennials and Generation Z are the generations that will drive real-time payments adoption, she said. Beyond consumer-facing payments, the B2B space is ripe for disruption, pivoting away from paper-based transactions, checks and card payments.

Risk and Fraud Are Top of Mind

The shift to instant payments carries with it the specter of heightened vulnerability to fraud, Guerra cautioned. The irrevocable nature of these payments and the swelling volumes of card-not-present transactions are proving to be catnip to bad actors.

"Digital payments are creating new frontiers for fraudsters," she said, as in-app payments and embedded finance offer new attack vectors for various schemes and scams.

She noted that identity assurance is a critical line of defense, tapping into machine learning, artificial intelligence (AI), and a variety of third-party services to help make sure that transacting parties are who they say they are.

On-Premise Commerce Innovations

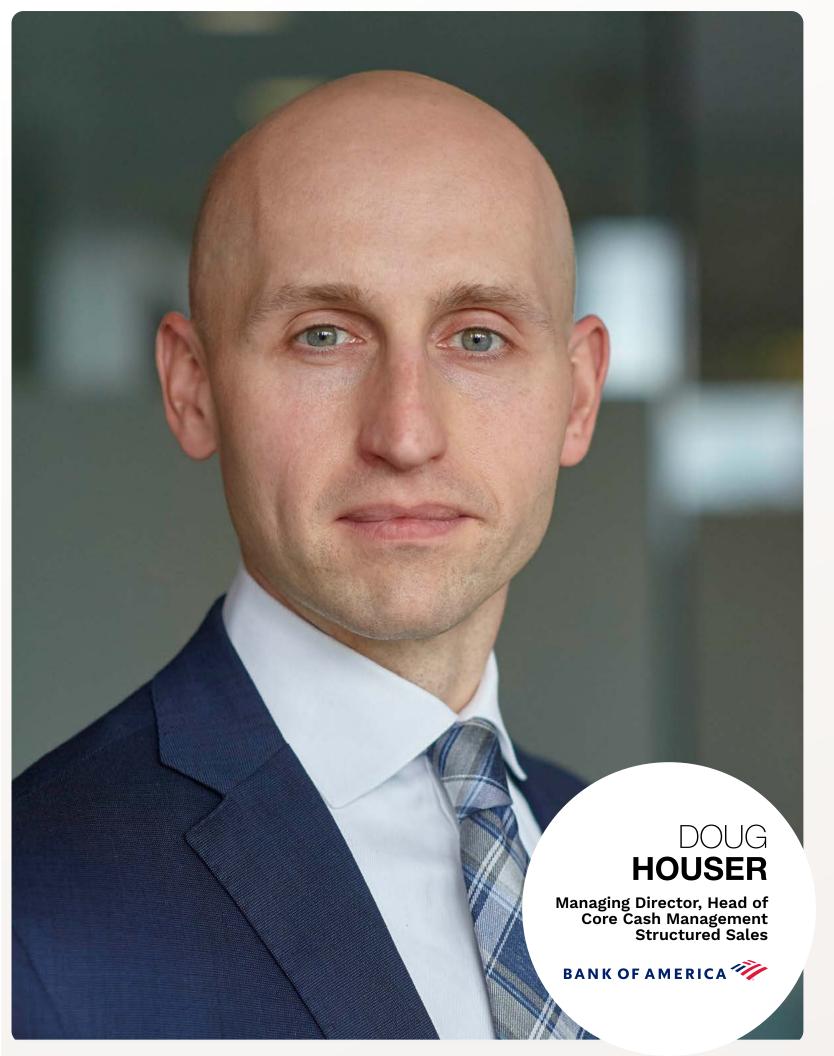
The innovations taking shape in payments are not confined to purely digital interactions.

Looking ahead, Guerra said we'll continue to see the proliferation of self-service kiosks in brick-and-mortar retail settings, from grocers to drug stores and more.

The pivot to enlist the aid of technology at checkout comes as merchants grapple with higher input costs (including wages) and labor scarcity. Offering promotions and discounts (across mobile and digital channels) as these same consumers come back into physical environments will help boost sales conversions and cement brand loyalty.

The digital evolution of payments blossomed during the pandemic. Despite some macro headwinds that dominate headlines, Guerra said, "with the advent of real-time transactions, the continued opportunity to displace cash and cross-border opportunities for digital commerce, there are lot of positive opportunities ahead of us."





REAL-TIME REALITIES

IHRE YEAF

t's easy to get carried away by dazzling innovations and futuristic concepts in finance, but what companies usually crave more is a dose of reality to make planning pay off sooner, not later.

Speaking with PYMNTS for our "Executive Insights Series – The Next Three Years," Doug Houser, managing director at Bank of America (BofA), said he sees this as an exercise in separating what's going to stay the same and what's going to change in the next three years to keep efforts grounded.

Saying BofA is investing in the payments tech of the future, including central bank digital currencies (CBDCs), he told PYMNTS that "when you think about that three-year window, our clients really want to know two things. They want to know what's going to stay the same and what's going to change, and how do they plan for that in the cash management space?"

On what will stay much the same in the 36-month view, Houser said the globalization of commerce is now firmly rooted and will continue to grow. Calling many BofA clients "accidentally global" by virtue of global demand for products and services, Houser said: "They're going to either source or sell globally whether they want to or not."

As part of that, BofA is working to "shrink the globe" by leveraging its worldwide presence in ways that enable clients to operate globally without making huge investments of their own.

Noting that BofA has been doing cross-currency automated clearing house (ACH) for years, he said: "What we look to do now is expand on that using real-time rails locally, our technology partners, and even bilateral arrangements and extending those agreements so that we can do real-time payments via what we call IXP. We think driving global digital payments is going to be very important."

Payments localization is another area that will stick to its current strong trajectory.

That's what stays the same — more or less. He said the changes he sees coming in the next three years rely on real-time and deep data being deployed in new and innovative ways. Fraud is another aspect of finance that will still be with us in three years, requiring better tools as time goes on.

See also: Integration and the Future of Financial Services

Doing More With Less

With many estimates pointing to either outsized inflation or a full-blown recession gripping the world economy until 2024, the allocation of resources is one area of change for banks.

Doing more with less was more of an option in prior years.

"We're talking about constraints on the human capital side, we're talking about constraints on the working capital side, we're talking about the cost of borrowing," he said.

In that climate, new payment routing through innovations like **Pay by Bank** that BofA introduced in Europe in 2022 allows consumers or businesses to pay directly from bank accounts in real time without the frictions of payment methods like credit and debit cards.

"It's great for clients who can now offer their own customers another payment option," he said. "But if you look at what's happened over the last 18 months, it also means that if you're converting card payments, which settle in two to five days, to immediate real-time payments, now that's become real money."

Along with innovations like Pay by Bank, banks must improve data flows with real-time messaging using technologies like IXP for greater security of real-time payments and the data insights they hold.

This improves cash position as well as forecasting, which are closely tied.

"We should be able to provide real-time insights to allow our clients to maximize their working capital and improve their forecasting," he said. "That's also what we're looking to invest in jointly with our clients to deliver, either via [application programming interface (API)] or through an online solution."

Read also: BofA Extends 'Pay by Bank' to Euro Payments

Practicality Is Prudence

Acknowledging that demand for real-time payments will expand significantly, he said "one of the most important changes that real time has versus other types of rails like ACH is that you get your cash now. You don't have to validate if it's in the account."

"That's powerful for clients," he added. "That cash upfront now has a lot more value."

On the outbound side, real time enables payers to hold cash longer and still be assured that payments will be received on time without multi-day settlement waits and associated delays.

"Real-time payments as part of a larger real-time treasury ecosystem are going to be very powerful for the industry, and I think it's only accelerating in this environment," he said.

With a "do more with less" ethos in the background now, he added that companies should be less concerned with disruptive technologies and instead focus on perfecting what they have.

"When you have a complex structure that has treasury and cash management staff, a shared services group and IT group — along with pressure on hiring — you need to optimize what you currently have," he said. "You want to make practical gains. The integration of disruptive technology really doesn't align with optimizing scarce resources."



BILLTRUST CEO SAYS MIDDLEWARE AND NOT STANDARDS KEY TO

MODERNIZING B2B PAYMENTS

illtrust CEO Flint Lane predicted that B2B's modernization would not come in one fell swoop, underpinned by a global standard — a language of data, so to speak — that directly links buyers and suppliers, AR and AP departments.

"There are just too many people who would have to change the way they do things," he told PYMNTS CEO Karen Webster, "and nobody wants to go first."

Here's something else that won't happen: the imminent demise of checks — well, not anytime soon.

"They'll continue to decline, and with the continued invention of better mechanisms to deliver **electronic payments**, that decline will accelerate," said Lane. "There will not be a complete disappearance of paper checks — not unless the post office starts charging much more for postage."

Some behaviors are just too firmly entrenched to fall by the wayside entirely. There are too many unbanked people in the country and too many businesses that love their checks and who for whatever reason opt not to embrace electronic means of transacting.

There's another reason that checks are proving to be so sticky, as Webster observed: It's become easier to deal with them. Fraud magnet though they may be, there are enough systems, technology and software that's in place to make it easier to use them — chiefly through automation.

Indeed, for the businesses who are set on using them, it's a case of "out of sight, out of mind" when paying by check, said Lane. Those paper payments travel straight to the bank's lockbox, and the FIs have built automation around the checks, complete with automatic envelopes, scanners and OCR technology, too.

Also set to decline but not die: payment portals.

"They're a wildly inefficient way to automate things," he said, as businesses send invoices to customers. The portals will be favored by smaller firms, who still act like consumers as they look to move payments online, but are not optimal for larger companies with thousands of suppliers they have to pay. In fact, account payable (AP) teams spend time and money building what are essentially robots that push thousands of payments through those e-portals.

In Lane's telling of it, there's something better than taking a piecemeal approach to automating parts of the B2B payments flow: Not having to automate in the first place.

If there's one trend that will run through B2B, it's digitization as enterprises present invoices and pay them, and transfer billing and remittance data back and forth — and don't have to tinker with back office workflows.

The Middleware Approach

What B2B really needs, Lane said, is a universal translation layer — a set of middleware to streamline data and connectivity. He offered the example of the ATM network, where a slew of different networks is still operating across the globe — but regardless, there's middleware running through it all.

In B2B, a translation layer "fosters the interoperability between businesses to allow them to exchange electronic payments — and more importantly, electronic remittance information is the key to driving success here." Lane noted.

He added that rich data flows enable providers such as Billtrust to move beyond traditional AR and AP lanes, and bring net terms, working capital and cash flow management to a platform that's essentially a loop of innovation.

Looking Ahead

"We have a strong belief that every single business is going to need a digital address that does not yet exist," he said, "so we're investing heavily in [Billtrust's] Business Payments Network to build out a standard around digital addresses so that every business can be paid electronically easily without going through a complex discovery process."

Lane said there's a 50% chance that the ACH network becomes the rails over which those digital payments travel and a 25% chance that other infrastructure gains favor — perhaps real-time networks or perhaps something else entirely. Public blockchain and stablecoins may be an option, with the latter pegged to the dollar for stability.

"There are a lot of providers on both the accounts payables and receivables sides that are automating those two functions – but we rely on these archaic payments rails that don't carry remittance ... and it's not beyond the realm of possibility that the providers get together and build a network," Lane said.

And as the rails themselves modernize, buyers and suppliers find increasing value in finding new ways to pay and manage net terms more efficiently, predicted Lane. All of a sudden, with interest rates soaring, a 2% discount for a payment made in 10 days becomes an attractive way to manage cash flow.

"If interest rates continue to rise, not only will net terms come back, but credit cards will become more interesting," he said. In fact, there's a 25% chance that credit cards will take a significant share of the upcoming digital transformation as checks continue to decline.

The Great Shakeout

As digitization takes over, the very landscape of the providers themselves will shift. There will still be value in maintaining customer relationships on the AR side of the B2B transaction (and thus a need for human staffing) but AP will see a reduction in headcount as tasks are taken over by the machines.

That means, too, that the number of providers of AP technologies and solutions firms will dwindle amid a shakeout. There's not enough funding to keep all of those businesses alive, not in the current capital environment.

As Lane told Webster, "there's probably 15 of us who are focused on accounts receivable. There's probably a hundred that are focused on accounts payable — so it's tough to think there won't be some consolidation there. They're all chasing after the virtual card interchange, and that's going to come to an end. Not in three years, but at some point the party ends."



BITPAY CEO SEES CONSUMERS AND MERCHANTS BECOMING **CRYPTO-FIRST NATIVES**

hile using crypto to make payments isn't exactly common yet, there are signs that consumers' desire to pay with digital assets is still strong despite the downturn of the crypto winter. Most notably, more merchants are starting to accept it, and more FinTechs are starting to support it.

And it's not just merchants. Traditional banks and financial institutions are starting to engage as well. Just this month, **BNY Mellon**, America's oldest bank, announced that it had **received regulatory approval** to offer clients crypto custody — the first major mainstream bank to do so. And on Oct. 17, **Mastercard** rolled out **Crypto Source**, a **white-label cryptocurrency trading** service aimed at mainstream banks.

None of that would be happening if people didn't <u>want to buy, sell</u> and spend crypto.

In this article, part of PYMNTS' Executive Insight series, we'll explore what the next three years have in store for crypto payments.

"The macro trends that we anticipate over the next three years are really more and more consumers and companies becoming crypto native or crypto first," **Stephen Pair**, CEO of crypto payments technology firm **BitPay**, told PYMNTS Editor in Chief Matt Nesto.

That means "being much more open and willing to handle crypto directly and not rely on other companies or service providers to handle the crypto or store the crypto for them," he said.

Going Native

"I think they're going to experience the same thing that we've experienced as a company, which is, it's a lot easier to interact with a blockchain than it is to conduct payments through legacy providers," Pair said. "The days of uploading NACHA files, I think, are rapidly becoming behind us. And having to do wire transfers and that sort of thing where there's a lot of manual intervention required."

More generally, he predicted that businesses are going to get more interested in learning how to set up digital wallets to manage digital assets and conduct payments.

"It's not to say in the next three years, all companies are going to do that," Pair said. "But I think we're going to see increasing interest in that. More and more companies on our platform want to do that."

Another big trend he's seeing is both retail users and companies choosing to make or accept payment in dollar-pegged stablecoins.

"That solves some of the problems with handling volatile cryptocurrencies directly," Pair noted. And it's not just an American trend — BitPay recently added a euro-pegged stablecoin to its offerings, he said.

Stephen Pair

Make It Easy

Over the last few years, a big priority of BitPay has been to integrate its services into major eCommerce platforms like Shopify, Pair said. The goal is to make it **as easy as possible** for merchants using those platforms to add crypto to their payment options.

At some, like Shopify, turning on crypto payments can take as little as a few hours, he said, although it depends on the level of integration required by a specific eCommerce site.

Beyond enabling payments, another service BitPay is focusing on is education, Pair said. Helping "those companies really raise awareness about their products and services among the crypto community" is vital to helping "those companies market and sell their products and services to crypto users," he said. "It's a big area of investment for us in the next few years."

From a business perspective, Pair noted, there's not a lot of investment needed to "dip their toe" in the crypto water before deciding whether to hold crypto rather than having it automatically exchanged for dollars or another fiat currency at the time of sale — which is what most merchants working with firms like his that take crypto do.

"Perhaps they own crypto themselves or they want to be more crypto native and have some of their assets stored in crypto and use that for conducting payments, initiating payments," he said. "We can start with a very novice company and help them grow as their interest level develops over time."

Give and Take

Another reason some companies — particularly tech firms — are looking at **crypto payments is for payroll**, Pair said.

"There's a lot of interest among employees to get a portion of their paycheck in crypto," he said, noting that adding a small, regular amount of bitcoin or other cryptocurrencies to their holdings is "a great way for people to actually start accumulating cryptocurrency, start getting exposure."

By and large, Pair told PYMNTS, the biggest obstacle to companies embracing crypto payroll deductions is "recognizing that there is an interest among their employees and that it's a great benefit to offer their employees."

From the employer's perspective, "it can be as simple as sending dollars to BitPay with instructions on which employees get paid," he added. "We handle the employee signing up and linking their wallet to be able to receive the cryptocurrency. We make it very turnkey for the company."

Rules and Regulations

Another stumbling block for merchants looking to get paid in crypto is compliance with banking anti-money-laundering (AML) rules and ensuring that they are meeting tax and legal requirements. That latter one can be a high hurdle, as in many cases, regulations are unclear or simply unwritten.

By handling things like know-your-customer (KYC) data collection needs and the monitoring and flagging of suspicious transactions, third-party services like Pair's can take one of the potentially most time-consuming and pitfall-laden parts of crypto payments out of merchants' hands, he said.

On the security side, Pair said that crypto can be safer as the phishing campaigns that seek out personal information that can be used to bypass password requirements simply don't apply.

And despite bitcoin's rather overstated reputation for anonymity, "all transactions on blockchains are public and leave a permanent trail," he noted. "So illicit activity in association with cryptocurrencies is not as anonymous as cash, as physical dollars."

But at the same time, he adds, pseudonymous crypto transactions are "probably a little more privacy protecting than bank accounts, which allow anyone with access to see what you're spending money on."





RISING INTEREST RATES SPARK SUPPLIER

COMMERCIAL CARD ACCEPTANCE

he payments pull and tug between buyers and suppliers has long favored those doing the buying, but that's changing as technology takes friction and cost out of B2B transactions.

Speaking with PYMNTS Karen Webster for the "Executive Insight Series — The Next Three Years," Boost Payment Solutions Founder and CEO Dean Leavitt said he sees this buyer-supplier payment dynamic as fundamentally changed in the wake of the pandemic.

Pointing to an "equalization" now afoot in lopsided buyer-supplier financing that's being further accelerated by the increasing use of B2B commercial cards, he said: "Historically there's been somewhat of a lack of balance in that universe where the big benefits often are attributed to the buyer — working capital, in many cases rebates, other operational efficiencies."

Today, "the rules, the rigidity of yesteryear's commercial card processing arena are kind of getting blown up," he said. "And because enterprise level B2B is a completely different animal than the retail environment, where it's really coming into focus is on how that equality of trading partners is being manifested in technology."

This is being seen more now among enterprise-level suppliers that are flexing their new leverage in some cases by refusing to accept costlier payment methods — or at least to pick up the tab for using them — which he said "then gets into how do we reduce that cost? How does it get shared with the stakeholders? It's mostly that segment I would say that we're seeing the biggest kind of metamorphosis in how this is playing out."

Asked about the durability of this shift, Leavitt said, "I think it's sustainable." Technology has caught up with buyers on one side trying to expand days payables outstanding (DPO) and suppliers trying to shrink days sales outstanding (DSO).

"There are technologies and payment products, including commercial card products, where you can, in fact, expand DPO and reduce DSO by kind of sandwiching in a credit product and the grace period

associated with it," he said. "So, it's definitely on both sides, and I think that also is going to come more and more into play as we go deeper into this potential recession, maybe we're in it, who knows technically, and also that tightening up of liquidity."

See also: Too Many Industry Sectors Operate in Payments' Dark Ages

Solving for Working Capital

With access to working capital very much on the minds of buyers and suppliers in the current climate, solutions like Boost commercial cards offer a viable option serving both sides.

"As interest rates continue to rise, this product, a credit card product, is a very attractive alternative," Leavitt said. "In certain respects, it has some attributes that are more attractive to some larger corporations than traditional debt instruments from a balance sheet perspective. Different organizations treat it differently."

It also fits into a broader shift he said he's observed with "some of the largest companies on planet Earth" migrating to new payment methods, reflecting the sea change.

"As it relates to pricing and the sharing of the pricing, that's where it gets into that equality," he said. "Where is the leverage? What is that particular buyer-supplier relationship all about from a margin perspective, from all the different perspectives of any two trading partners?"

Commercial cards help clear this fog, assisting in enforcing rules between trading partners and evening out traditional inequities. However, it takes "awareness, education, getting rid of misperceptions about what commercial cards are, what they cost, what implementation requirements are, etc.," he said. "It's about educating the marketplace and also celebrating this equalization among the stakeholders in ways where both sides welcome the use and acceptance of these commercial card products."

This revolves partly around things commercial cards can do that those incumbent payment modalities like corporate cards can't and the deeper data they bring to the equation.

"It's kind of that whole package and making sure that the stake-holders truly understand what the benefits are across the board.," he said. "Ultimately whatever decision they choose to make, at least they're making that decision based on accurate, real and current information, as opposed to basing those decisions on what might be misperceptions about the product itself."

Read more: Digital B2B Payment Solutions Provide Flexibility for Buyers and Sellers

A \$121T Opportunity

As to whether this largely North American trend goes global on a three-year timeline, Leavitt noted that Boost operates in 47 regions and each one has "their own idiosyncrasies."

"We're seeing tremendous activity in a host of the different regions that we operate in, both domestically, within those regions, cross border internationally, as well as cross border to and from the United States," he said. "In fact, in certain regions, it's even happening quicker, this equalization where suppliers have more leverage now and more say in the payment mode that's going to be used. It's clearly an international issue."

With a total addressable market he pegged at \$121 trillion globally, Leavitt told Webster that many companies spectating from the sidelines now see more reasons to make this move.

"Because of the perceived costs of those transactions, what we're seeing now is the cost of an [automated clearing house (ACH)] transaction — where the data is included in that transaction — has risen significantly," he said. "Similarly, the cost of a commercial card transaction has fallen to be right-sized. What you're seeing is that delta now is in many cases microscopic."

In short, he said he sees commercial cards becoming far more common over the next three years, especially given their advantages over ACH transactions and other pricier rails.

"Many of the financial institutions that we work with understand that by taking a closer look at the pricing, you can now save at-risk spend that's currently on the card rails," Leavitt said. "But more importantly, you can dramatically grow the program and bring more spend onto those rails that may not have been appropriate for the rails in a different pricing construct."



ERAL RESERVE'S NEXT 3 YEARS INCLUDE INSTANT PAYMENTS

'EASY BUTTON'

he term "central bank" brings to mind thoughts of stability, resilience and trust, all things that have been part of the Federal Reserve's DNA for more than a century. Many people are less aware that the payment systems operated by the Fed facilitate the electronic movement of trillions of dollars between financial institutions every day. And most people may not realize the work underway to leverage cutting-edge technology to further increase the speed of payments, enabling instant payments between people and businesses.

Mark Gould, chief payments executive for Federal Reserve Financial Services at the Federal Reserve, told PYMNTS that the Fed is fine-tuning its focus to streamline the embrace and use of digital, speedier payments.

The launch of the FedNowSM Service mid-next year is a signature milestone as the instant payments system is set to debut, allowing individuals and all manner of businesses access to real-time transactions through their financial institutions.

In the background, the Fed also is working to reorganize its financial services as an integrated enterprise of payment services. That marks a significant shift for the central bank, he said. Historically, the central bank has organized itself separately around specific product lines and locations.

"That served us well, at least for a period of time," he said.

But now, with the advent of instant payments, and with the first new payment rail in 40 years, there's the need for, as he put it, "an easy button for customers and an easy button for payments ... particularly for the small- and medium-sized financial institutions in this country."

The goal is to make it possible for any American consumer or business to get, and send, money instantly, whether to/from a friend, a family member, a business or to pay a bill, and likewise, to enable participating financial institutions the ability to instantly clear and settle those payments.

"That's completely revolutionary in payments," he said, adding that the Fed expects that FedNow will be used as a platform for future innovation.

For a parallel, consider the iPhone — upon its debut in 2007, no one would have thought that the phone would become a conduit to everything from buying coffee to boarding a plane.

Payments rails, including the FedNow Service, can evolve in similar fashion, he said. ACH payments are being used in ways that no one would have envisioned 20 to 30 years ago (for instance, P2P payments over app-based mobile platforms).

The FedNow Service will publicly launch in the middle of next year, and after that the Fed will be making continued investments in the platform to add new features and functionality. Scale and reach will help bring those new innovations to the market at large, as the Fed already has electronic connections to every financial institution (FI) in the country.

Initially, key FedNow features (already in pilot) will include bill pay and request for payment, or RFP. In the case of the latter, with additional technology in place, a cellphone, utility provider or other biller could send a consumer a text with a link to click to complete the transaction. FedNow RFP will enable the exchange of rich data, such as underlying transaction details, which can serve as a useful record and allow billing organizations to streamline their reconciliation processes.

Other initial FedNow features and use cases will include account-to-account transfers and liquidity management transfers.

Gould underscored that innovation is needed to deliver FedNow instant endto-end payments, saying: "It's imperative that each of us — from central bankers to bankers to FinTech entrepreneurs to break out of their respective comfort zones, and be open to new ideas and use cases. It is only then that we will truly realize our vision to make instant payments accessible to all.

"The sky's the limit," he told PYMNTS, "and we can say with certainty that the next three, five, 10 years are going to be among the most exciting years in payments we've ever seen in our history."





LEGACY PLAYERS AND DIGITAL **DISRUPTORS** RESHAPE PAYMENTS

o a large extent the future of payments will be built on foundations laid in the past, but greatly enhanced by digital innovations that are creating entirely new use cases and experiences.

That's the view of i2c President Jim McCarthy, who in an interview with PYMNTS' Karen Webster for the "Executive Insights Series — The Next Three Years" spoke of shifting sands in payments technology from banking to retail that call for new solutions to intractable issues.

Noting how legacy constructs among issuers and payments processors are being "flattened" by new digital demands, he said, "As payments become more embedded ... with merchants wanting payment capabilities, payouts, gig workers, to me, all these are just use cases that require a rich set of APIs of payment functionality. This is forcing the players in the space to become more fully functional and less wed to classic industry definitions."

This is evident in trends like tokenization, where he pointed to Visa's recent announcement that its Visa Token Service (VTS) has issued over 4 billion network tokens worldwide.

He said that's "more cards than they've ever issued in the Visa portfolio on the planet and is just the beginning. They went from the pays tokenization to eCommerce tokenization, and the next step — it's actually happening as we speak — is ACH tokenization and real-time payment rails. Tokens are critical to that."

Moreover, new use cases created "get more interesting, because I think for the first time you can plum for IoT and, God forbid, metaverse-like, applications. In all honesty, the foundation is there to create really interesting payment use cases," he said.

This doesn't mean legacy players are dying — McCarthy said "the death of legacy players, however you define them, certainly in the space I occupy, the big processors, is not happening anytime soon" — but they will become part of a new ecosystem, and perhaps less primary.

With a nod to strong moves by banks like BofA and Chase into cross-border and other emerging areas, McCarthy thinks the next three years will be more about or fintechs, crypto players, neobanks and merchants that have gone global partnering with legacy on innovation.

"They're going to look for partners that can provide all those capabilities. They don't want to piecemeal it the way they've been forced to historically," he said.

See also: Embedded Finance Experiences Should Be as 'Easy as an iPhone'

New Areas of Specialization

As payments become more complex it will require a melding of the power of large commercial banks with the FinTechs' agility of to usher in new forms of specialization that differ from the era of specialization that came first in the tangle of issuers, acquirers and networks.

"I don't want to say this is the end of specialization," McCarthy said. "I do think, as certain things become more ubiquitous in some platforms, that new areas for specialization pop up. Whether it's disputes, especially for real-time payments, they don't exist. Someone's got to solve that."

That also applies to authentication and identity, a space that he said "is up for grabs. AML and KYC compliance in a world that's increasingly regulated and regulated differently, compliance as a service is important. New niches will appear. I've always questioned in some cases, are those real longstanding businesses, or are they a capability or business waiting to be acquired?"

The fact that financial systems have been largely built around managing exceptions, as Webster pointed out, gives bank-issuer-fintech partnerships fresh ground on which to innovate together.

Rulemaking is one example he turned to here, saying the banks and issuers have done "exceptionally well" with rulemaking and leveling the playing field.

But he added, "Even then they've innovated, if you think about the acquisitions of [companies like] Verifi, realizing that there are better ways to solve for some of those cases outside of the core network and to take those exceptions and try to deal with them outside of the core network. You'll continue to see that. I thought it was very interesting to see Visa and Chase join up on B2B Connect."

Saying card networks have been less successful penetrating B2B, for example, he added, "I do find some of these new networks that combine rulemaking with money movement and the ability to facilitate data exchange and manage those core cases, I think will be the winner."

See also: <u>i2c</u>, <u>Marygold & Co. Team on Contactless Debit Master-card and Savings Platform</u>

Building on Firm Foundation

Surveying the next three years for things like real-time payments and what rail or rails will come to dominate there, he said, "We're early innings and these things take time. I put this in the test and learn phase to a large degree for most of these efforts.

"Do the domestic real-time payment rails figure out a way to kind of work together with a patchwork of national rules and schemes? It is a jump ball, but I agree wholeheartedly that is a space that's ripe for innovation."

That talk track also takes in blockchain and crypto and smart contracts, where McCarthy said, "There's still a ton of inefficiency, not only in the payment piece, but the contracting piece. Then programmatic payments ... and certainly for governments that that need help with all sorts of services in a post pandemic world. There's a ton of opportunity."

Saying he feels like we're living in film "Groundhog Day," McCarthy said predictions are extra difficult now because "there are just so many moving parts and the data is not clear."

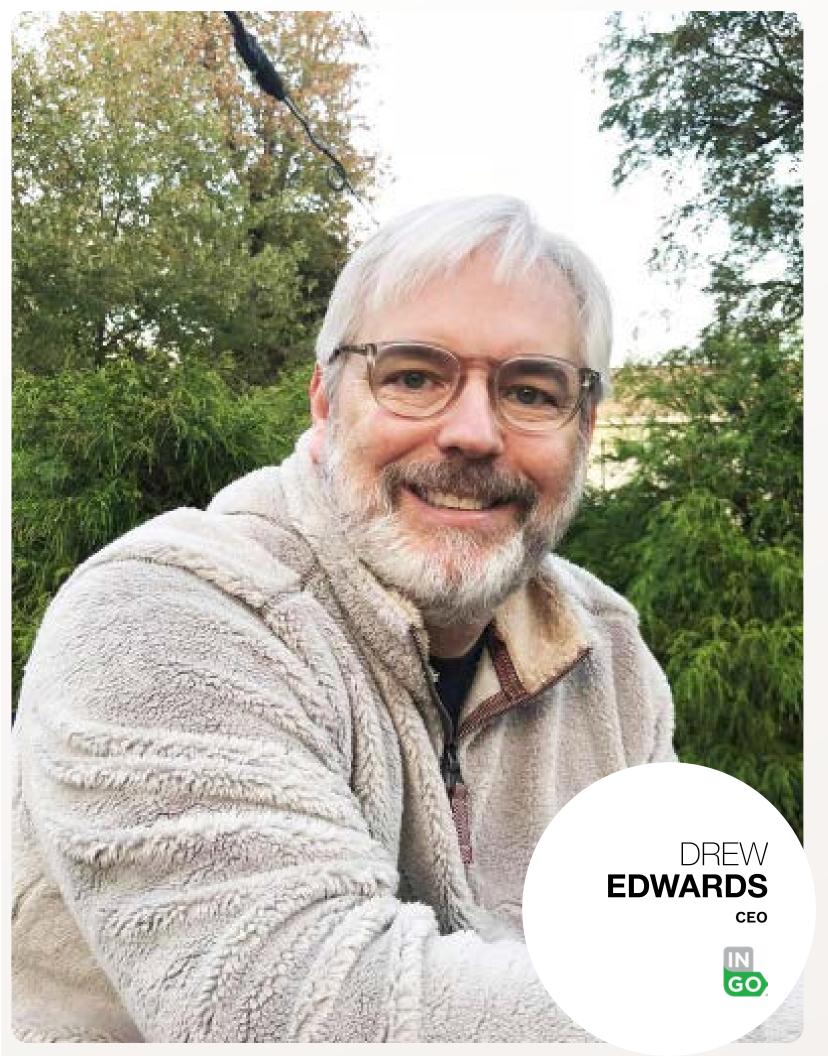
He is expecting many businesses to take a defensive posture, speculating that there will be "a flight to quality. Some people will not get through it. You'll see a lot of roll-ups and M&A."

As for concepts like metaverse on a three-year timeline, he said, "Maybe I'm aging out, but I'm just not seeing it. I get the creator economy, and I do understand that there's a generation of people that interact differently in technology than I do. But I struggle with, has that technology gotten to the point where it's so good that people will be compelled to continue to use it?"

Ultimately his three-year prognostication boils down to this: "The things that were carrying us the last 10 years will continue to improve," like numerous use cases for contactless payments.

"Some of the ones that you see right in front of us, the tap to pay coming to devices themselves without having to have a dongle continues to open up. Acceptance, identity, what's happening with FIDO and federated identity where I could combine a wallet with an identity that travels. I think again, it improves commerce and hopefully, with tokens, improves it safely."





WHY UNIVERSAL 'PAY ANYBODY' IS COMING AND WILL CHANGE EVERYTHING

biquity and choice are the digital promised land. How we get there from here will be a matter of securely opening the payments ecosystem to both while simplifying the field of players that's gotten too complex.

That, at least, is the opinion of Ingo Money CEO Drew Edwards. speaking with PYMNTS' Karen Webster for our "Executive Insight Series: The Next Three Years," Edwards described the current difficulties with money mobility and his three-year vision for how barriers must come down.

Asked to imagine the world of payments in 2025, Edwards told Webster, "It's my opinion that in the world of P2P and B2P, the lines are going to blur and it will all be about pay anyone and let them choose how they want to get paid."

Rather than a constellation of different programs, he described moving "from the land of closed-looped apps doing P2P and banks doing their own P2P to some sort of open network like Ingo has built where a corporate says, 'I need to pay all these people, pay them for me,' and you don't force all those people into a new app or a new engagement."

Noting the many different preferences of consumers and businesses, he said, "We live in the land of rails. There are so many different paths to bank accounts, etc. My big prediction for the next three years is what we know today as P2P and corporate disbursements all blend into a universal pay anybody [capability], and they can decide how to get paid in any way."

What makes this vision pragmatic and appealing is the fact that these rails and relationships already exist and with gateways like Ingo's the notion of interoperability is already a reality.

"The beauty of it is we already do this today for insurance companies, for example, and a lot of other verticals," he said. If you think about that use case, it's one entity trying to pay another entity safely, faster, and instantly if possible. My vision is that's how P2P should work."

See also: Here's Why Instant Payments Are Here to Stay

Open to New Possibilities

Webster pointed out the security issues such an open-loop payments system could create, but Edwards again believes we already have the software and systems to manage that risk.

"In my world, you need all of the data, especially the bad actor data, available in the same ecosystem. If it's part of the P2P network, which is how we envision it, and it does pull in data, you've got to make sure and keep track of not only preferences but behaviors and attributes so that you can safely do this at scale. We've been doing this on checks for a decade. I still believe data and a centralized payee registry, for example, that's keeping track of all that, solves that problem."

While Webster wondered if this kind of change is achievable in a three-year window, Edwards replied that "it's one of the most frequent inbound inquiries we get," hinting at demand.

Nodding to community banks seeking an alternative to Zelle and incumbent FinTechs with semi-closed loop platforms, he said, "When I say semi, I mean the closed loop P2P players all allow you to then move the money somewhere else. But that's kind of like a layover on an airline, and I'm used to living in Atlanta where we don't do layovers. We go right where we want to go. I believe the demand is chirping out there. There are people saying there's got to be a better way."

For all of their valuable use cases, he said some of the predominant tools that could enable the open future of banking and payments aren't necessarily built to enable an open ecosystem.

"Remember, all the FinTechs are pretty much blocked out of Zelle. There's nothing wrong with Zelle, by the way. I'm not anti-Zelle. We remain Switzerland here, but it's not a solution for all," he said, adding, "I'm a heavy user of PayPal and Venmo personally, but they are also not a solution for all."

This is illustrated in his own banking statement, which he describes as a "mess" of ACH debits coming from sources like PayPal, Venmo, crypto and P2P services.

The response to this tangle of rails and reporting is: "Here's all my P2P transactions and the people they were sent to and how much I sent them. Through our webhooks, our partners could update the transaction history with details on how the funds were claimed. It wouldn't be the mess it is today. It's true ubiquity in choice. It's already happening in corporate payments, and it's going to bleed over into personal payments."

See also: 170 Million US Consumers Received At Least One Disbursement in Past Year

How P2P Should Be

The issue with the world of 2025 Edwards lays out for pay anyone, anywhere, any way they want is that not everyone on the sender side is part of that connected ecosystem But the demand we are seeing speaks loudly to the right trend. Account issuers are beginning to recognize the problem.

"The rails are there, the accounts are there, we've got a consumer base that has moved from just having a BofA account to having a Coinbase account, a RobinHood account, a Chime account, a PayPal and Venmo account. The only piece missing, in my opinion, is their making it available to their customer," he said.

"You want to pay Karen? Don't worry about how she gets it. Just give us her contact information, tell us how much you want to pay her, and let her know to look for a message. We'll get it done and she can choose how. That's the magic of the way P2P should be."

In so doing, it turns P2P from a cost center into a potential revenue stream for FinTechs and financial institutions. "All of the P2P guys are trying to monetize it by getting [consumers] to leave money there and turn it into a commerce experience where they have interchange revenue. But there are other ways to monetize it in this open environment," he said.

"If my maid says to send it to PayPal and that's a layover for her and she wants it at Wells Fargo, then she's likely to pay a fee to get it over fast to Wells Fargo," he said. "By doing this, we can enable that monetization on the sender side where the maid decides where she really wants the money and sometimes that choice comes with a fee."



JPMORGAN CHASE SAYS B2B PAYMENTS CONSUMERIZATION IS **DRIVING A BETTER**

EXPERIENCE

am Yen, chief innovation officer for Commercial Banking at JPMorgan Chase, said a simple mindset should guide financial intuitions and other providers striving to innovate B2B payments for their business clients.

"What we think is core, banking services, is actually somebody else's chore," Yen told PYMNTS' Karen Webster, recalling a scenario from his early days with the bank. "Working with our commercial real estate clients, I was shocked to discover that the only reason residents kept a checkbook was because that's all the property owner would accept," he said.

"We saw an opportunity to go beyond traditional banking and address a real need for both property owners and residents. But we didn't call it a payment solution, we thought of this as a property management solution where the payments and the banking were actually embedded and wrapped up as a tool to actually run your business better," he said while noting the breadth of comparable opportunities he expects will present themselves going forward.

Currently, B2B transactions are marked by complexity, by a labyrinth of fund flows across borders that demand new ways of thinking about how money can and should move. There's ample opportunity to refashion commercial payments and make them more user-friendly.

Commercial banking, he said, is primed to do just that by helping businesses of all sizes scale more easily by deepening their ties to the Connected Economy.

"Technology is not as scary as it once was," he said, noting that while businesses are more open to new ideas today than in the past, it's also important for financial institutions and their clients not to get too hung up on the details of payment modalities or the hardware and software aspects.

Despite his deep tech background, Yen said the path forward for building embedded B2B payments is not really about the technology or innovation, calling them just "instruments and tools."

Instead, he said, what he is trying to achieve in improving business payments practices is to make them seamless and memorable experiences along the lines of what numerous consumer products and service companies already do so well.

"These companies look to simplify the experience of their clients and their customers," he said. "They're just looking for one aspect of their [customer's] lives to make easier and in some cases, more delightful," noting that the same objective should be applied in commercial relationships.

From Delightful to Delay

Given that most of us have already been able to consolidate many of the formerly physical financial aspects of our personal lives through digital wallets (Apple Pay and Google Pay), P2P payments and buy now, pay later options, Yen said those same experiences could easily transfer to our professional lives.

Not only can those trends spark new ways of thinking about business, he said, but a lag time of a few years in embracing innovation is the norm and to be expected, as is the inevitable B2B catch-up that is happening now.

"You're often able to look at the innovations that happen in the consumer space," he said, "and those innovations take a couple of years to filter over to businesses and enterprises."

With that in mind, Yen said providers are right to seek to "consumerize" financial services with the enterprises' input. The most successful approach for any B2B solutions provider lies in understanding and interpreting the client's needs from the beginning. "Co-innovation" helps improve the day-to-day experience of running operations.

It's Happening

To that point, Yen said JPMorgan Chase can and does leverage data that winds its way through information technology systems to examine what's happened in the past, what happens in real time, and what's needed (with machine learning in the mix) to make sure small and medium-sized businesses (SMBs) can grow to their optimal and desired state.

In fact, not unlike his old one-check-per-month example, JP Morgan Chase announced this month that it was piloting Story by J.P. Morgan, an integrated suite of digital commercial real estate management solutions to simplify and streamline portfolio management by providing access to a digital rent payment platform, unique data, insights and resources that help clients scale their real estate business.

"There are just so many little things that can be done to transform how small and mid-sized businesses operate and create efficiencies," he said.

That approach, he said, is not about just banking, "it's the innovation recipe in general."





FIGHTING FRAUD

s fraud prevention experts work to thwart shadowy foes, the identity data that is central to detecting and stopping theft has other uses that are emerging alongside new fraud-fighting tools.

Speaking with PYMNTS for our "Executive Insights Series – The Next Three Years," Jared Kernodle, chief revenue officer at Kount, an Equifax company, said he sees identity data not just as a means to prevent fraud, but as a way for merchants and brands to tailor offerings as they shield consumers from omnipresent scams.

Comparing the data evolution happening in commerce to what's becoming possible with identity data, Kernodle sees the next three years in his space being about "pre-authorization, helping payment environments, helping commerce, helping people understand, 'This is Jared, not only is Jared a good or a bad customer but what are Jared's intentions? What is Jared's propensity to buy? What's his income level? Health? Wealth? Where's he buying today?"

Moving these elements of identity fraud prevention upstream into the wider financial ecosystem will let them flow from the merchant, who gets automatic alerts, to issuers in order to power more informed decisions with customers and reduce false positives. Acquirers can also share the benefits.

"These technologies are going to be less and less bifurcated, and they're all going to talk," he said. In this way, identity can protect against fraud while simultaneously enabling more sales.

He sees "multiple use cases, not just in traditional retail and restaurant," but in driving better experience in healthcare, insurance, automotive and everywhere commerce now happens.

See also: A Case for Hyper-Focus on Hyper-Personalization in Q4

Dawn of the Fraud Data Consortium?

Looking where new forms of fraud are already on the rise — like automotive eCommerce and skip tracing fraud, for example — the identity sector has a heavy lift, but there are upsides.

On his three-year timeline, "It's the different data points that you can collect and leverage for the benefit of your business," Kernodle said. "For the solution providers in the space, if you're only doing fraud three years from now, it's like, well, duh, I stopped the bad actors, but how can I help you get better customers and do better with your customers? That's the evolution."

A good example of the new complexities of identity data is around the connected car and how these rolling 3-ton wallets can be exploited unless properly protected.

"If you get into a rental car today, you log in and screen up the car and you see 12 different phones and contacts synced," he said. "There has to be a way to remove that data from that environment and protect the consumer's identity."

Identity security solutions like Kount can actively track when cards are being used suspiciously, and Kernodle said he would like to see more cooperation in the space akin to banking to prevent more ID abuse.

He described a collaboration "similar to the banking sector. They have consortium data. They have known fraudsters that live in that environment and all the providers share with one another who those fraudsters are. We're going to start seeing that in the payments world."

Read: Merging Physical Data With Digital Identity Offers More Realistic View of Consumers, Businesses

Identity Evolves

Talk turned to the metaverse and other emerging fraud opportunities in entire virtual worlds inhabited by avatars that may or may not be sophisticated fraudsters in cute digital costumes.

"Tomorrow's targets are going to be not just [people's] emails," he said, but new forms that come along with these immersive experiences. "Payments fraud is where you have to move upstream," he said, because loyalty fraud, gift card fraud, and the like go where the money is, including the metaverse (someday), but today, it's gaming and eCommerce, broadly speaking.

As we move from email sign-ins to biometrics and device-level tracking where a thumbprint unlocks the payment, those networks will increasingly share data to stop the fraudsters as soon as they attack, and before any personally identifiable information (PII) is compromised.

"Identity is going to evolve outside of what we know it as today: name, social, physical address, business address, email. You're going to create a digital thumbprint in some capacity, and that's what people are going to start identifying you as," Kernodle said.

Using identity security data in novel ways not only frustrates fraudsters but can fuel the growing "buy button" movement across verticals, including things like mortgages and insurance.

"All of those things can stimulate and grow commerce in multiple verticals," he said. "I can authenticate you without you having to enter a password anymore because I understand your behavior on your device to help drive that better experience and keep the fraud out."





CHECKOUT'S UNATTENDED **FUTURE**

implifying and streamlining checkout is an industry obsession, and it's going to get more intense as retailers recognize the importance of the checkout experience to shoppers.

Speaking with PYMNTS for our "Executive Insights Series – The Next Three Years," Kristjan Johannsson, chief commercial officer at LS Retail, an Aptos Company, said the three-year focus for the pointof-sale (POS) solution provider is continued development of unified commerce platforms, the continuation of the company's cloud-based SaaS transformation and more work on improving unattended retail solutions.

With a massive footprint of over 90,000 stores from retail to pharmacies in more than 157 countries, including major clients such as Adidas, Starbucks, and Victoria's Secret, to name a few, LS Retail sees a unified future for the POS function across verticals — and devices.

"We are highly focused on providing our customers with a cross-device approach," Johannsson said, "so from POS to mobile or whatever device the customer is using, and also the channel, supporting all channels so it can be online or offline in any way the customer wants to approach the store, we can support those processes."

As retail changes post-pandemic, POS integrations that make new store features and configurations possible are also a focus for LS Retail's client list, as they are for all merchants.

Johannsson described a common scenario wherein a retailer wants to add a food or coffee offering to a retail location. Doing so gets easier with a unified POS approach that works from the core retail operation to the ancillary offerings — like coffee — that many are adding.

"We both support the retail part of their operation, but also the hospitality part, all in one solution," he said.

Pharmacy is another area where LS Retail is bringing unified POS to bear. In this case, it's common for one software solution to be used for complicated prescription processing and a separate POS for over-the-counter medical items and retail products, often handled by a different solution.

"We are able to do this in the same solution as a unified offering and helping the store, a pharmacy, in this case, to run this in a much smoother process," he said.

See also: Scale up Digital Capabilities Now to Stay Ahead Tomorrow

The SaaS Transformation

Cloud-based POS and SaaS are a major focus for many operators now, and with LS Retail's foundation being the Microsoft Dynamics 365 Business Central solution, it's tapping more deeply into the processing power of Azure cloud computing to realize its unified vision.

"The velocity of our customers transforming to SaaS has been really increasing during the last year," he said. "As we see it now, this is going to happen during the next three years. Most of our customers will move, and all new customers will opt-in, for the SaaS version" of LS Central, its retail management software, as well as its specialized POS offerings for enterprises and small and medium-sized businesses (SMBs).

Unattended retail innovation is very much on the company's threeyear roadmap as well, as retailers of all types retool for speed and convenience from order to checkout.

"The pandemic set the scene for this and really pushed the R&D on our side, and many of our competitors," Johannsson said. "We have invested in the scan and scale self-checkout solutions, which are typically in the grocery area, but also coming more and more into specialty stores and more retailers are wanting to use this."

It's not just the pandemic aftereffects but consumer demand driving these innovations. Pointing to Amazon Scan and Go "just walk out" payments as a kind of north star here, Johannsson said, "When you have an app where you can do the shopping, you can do the scanning, and you can check out yourself through your phone without anybody in the store interfering or assisting you in any way," consumers increasingly prefer to do it themselves.

LS Retail has taken a similar step, embedding its unattended POS functionality into its SaaS software, in effect turning smartphones into POS terminals. "Our POS functionality is now in the phone of the customer," he said. "They just need to register and identify themselves. We see a lot of interest in this ... in the grocery area because they are providing 24/7 small stores close to railway stations, etc. This is a trend that we see clearly coming out."

New Markets, New Approaches

As for other strategic maneuvers on a three-year timeline, LS Retail sees the potential to continue the digital transformation of restaurant ordering and payment via cloud-based mobile POS.

"We see this in the hospitality area, and in restaurants where we have seen these QR codes on the tables," Johannsson said. "You go on the website of the restaurant, you make your order there, you can even pay there, and the waiter gets the notification when the food is ready to bring it to table number seven or whatever."

These scenarios, born out of pandemic necessity, will continue to be refined and advanced as he said providing and supporting contactless shopping has use cases into the future, and certainly over the next three years.

This will benefit emerging markets as much or more than established ones, as Johannsson spoke about the outlook for new geographies as they adopt unified POS in all its forms.

"We see some of these areas growing faster than others. We are making a lot of progress in countries in Africa. We have a number of new customers in groceries in Africa. We see also areas like Indochina where you are looking at Vietnam, Myanmar, Cambodia, and these kinds of countries. There's a growing demand for our solutions in these areas," he said.





WHY IT'S TIME FOR THE CONNECTED HEALTHCARE WALLET

dministrations come and go promising healthcare reform, but it's nimble and creative FinTechs that are making it happen, creating connected digital ecosystems that add value to healthcare programs with unified loyalty, incentive and financing options suited to today's demands.

Speaking with PYMNTS' Karen Webster for our Executive Insights Series - The Next Three Years, Lynx Co-founder and CEO Matt Renfro said he sees a near future where the disconnected, redundant payment cards we carry now can be replaced by a unified digital experience.

Matt Renfro

Renfro said Lynx is in the process of "having a foundational conversation with many different industry participants that touch healthcare, which is really the blocking and tackling of owning the financial and digital experience with their members, patients, consumers."

The endgame there is a digital wallet that replaces the stack of insurance member identification cards, pharmacy discount cards and gift cards, as well as payment cards favored for earning points.

"Nothing stops the plan from reimagining the insurance ID card to also be the consolidated healthcare wallet," he said. "Why would I carry a separate HSA? Why would I carry a separate Walmart gift card when I perform a healthy behavior? We provide sophistication from a card processing standpoint," giving plans more flexibility in how these can all work together.

While saying it's not exactly earth-shattering, that depends on how well these efforts pan out as insurers and health systems confront new digital-savvy competitors from Amazon to CVS to Walmart moving aggressively into healthcare with convenient multifaceted offerings.

"We are articulating to different distributors that you don't need to outsource your patient or member financial experience to a white-label, single-sign-on experience built 30 years ago," he said. "You can control and manage ... a health savings account, a loyalty account, an incentive account, in the same experience where you're investing the majority of your dollars."

See also: FinTechs Look to Leapfrog Point Solutions and Reward Good Health

Embedded Economics

Viewed on a three-year timeline, it's hard to imagine intractable healthcare issues falling before the smarts of a mobile app, but that's the consumerization of healthcare at work.

With a suite of consumable programmatic application programming interfaces (APIs) that he called "very tech-friendly," Renfro said he sees Lynx's three-year mission as uniting the disparate elements of healthcare, from HSAs to loyalty, incentives and discount programs into a holistic experience that's easy to use and administer.

"Future state, we've got that hard stuff handled for you, and we can embed it into where you're investing the majority of your capital, whether that's your mobile app or your website, and you won't lose the eyeballs anymore," he said. "I can purchase this HSA-eligible product or a healthy meal right alongside seeing if my doctor's in-network" using the API-digital wallet approach.

Economics are another aspect, as Renfro said the API-connected path can turn the annual expenses of distributors into an annual "multimillion-dollar revenue driver."

Noting that people are more engaged by far in FinTech tools than in healthcare apps, he said, "the bigger value to players in our space is if you can meet people where they are engaged and connect them to the healthy food, to the virtual care appointment, that's worth 10 times more. It's a profitability infusion of our business model where we're not just reliant on interchange and traditional payment economics."

Read also: Consolidating Point-Solutions to Adapt in a Changing Economy

Matt Renfro

The Power of the Consumer-Patient

In envisioning a more connected healthcare ecosystem with embedded finance, demand is increasing for solutions that make health insurers and providers more competitive with large consumer and financial brands moving into healthcare.

Renfro said many of the conversations he's having are from providers wanting "Starbucks-like loyalty programs," but how that gets done deviates from common business models now.

It's appropriate for a three-year outlook as "those players who have extreme expertise for how consumers operate and engage and how they can increase basket size, I would assume that is going to make its way into more of the healthcare-focused behaviors," he said.

Asked about the reality of making this happen over the next few years, Renfro said it won't be simple, noting for example that "most Medicare Advantage plans will be giving members a debit card starting Jan. 1, 2023. It's largely based [on] gift card infrastructure, not API-enabled best-in-class payment processing. It can be a confusing experience at point of sale."

That's part of the job confronting healthcare companies and their tech partners, and we will see an acceleration of efforts along these lines as more providers see the need for connection. It also suggests a tipping point for healthcare payments and account management on the horizon.

Renfro said "that consolidated healthcare wallet I was describing with the insurance ID card, you'll probably see different pilots over the course of the next year or so. Maybe in three years, you have at-scale types of programs. I've had this belief that the ID card should be a hybrid payment mechanism, but that'll be longer" due to regulatory issues between individual states.

Consumers will drive much of the change as they have with many digital transformations, leaning into solutions that add value and enhance experience. That becomes the way forward.

"I want to be able to shop for groceries, or I want a ride via Uber or Lyft to my local provider," Renfro said. "Whether you're a health insurer or if you're a financial institution at the intersection of health and wealth ... they're investing a lot of money to try to consolidate where their consumers can maximize their relationship and to be sticky as possible."



TREASURERS WILL HAVE 'CLOUD MOMENT' AS **REAL-TIME PAYMENTS GAIN TRACTION**

s Modern Treasury Co-Founder and Chief Product Officer Matt Marcus sees it, over the next few years, the payments sector will see seismic shifts as transactions make the leap to near-instant settlement and widespread usage.

Speaking with PYMNTS, Marcus said he's grown used to rapid change, especially in the four years since Modern Treasury was founded.

"From when we started the company through today, we've seen the development of APIs [application programming interfaces] and real-time payments, even where ACH and legacy technologies were still the name of the game for payments in most companies — no matter if they were small or large enterprises," he said.

Moving Beyond Spreadsheets

Increasingly, finance requires the real-time movement of data, which can be a huge back-end problem for companies, noted Marcus. Those back-end processes are inefficient, dominated by spreadsheets. As a result, many finance groups spend a significant amount of time juggling manual tasks, often at the expense of taking on more strategic roles in their firms.

"It's hard to get all the data in place, especially with all the metadata that you need to understand what's actually happening within a company," Marcus said.

Traditional payment methods such as ACH are hamstrung by limits on the data that can accompany payments or show up on statements, whereas real-time payments are well stocked with metadata.

Financial services is having its "cloud moment," Marcus said, where the collection, analysis and transmission of that metadata will be made easier with the emergence of real-time payment networks and **FedNow**.

"The groundwork has been laid," he said.

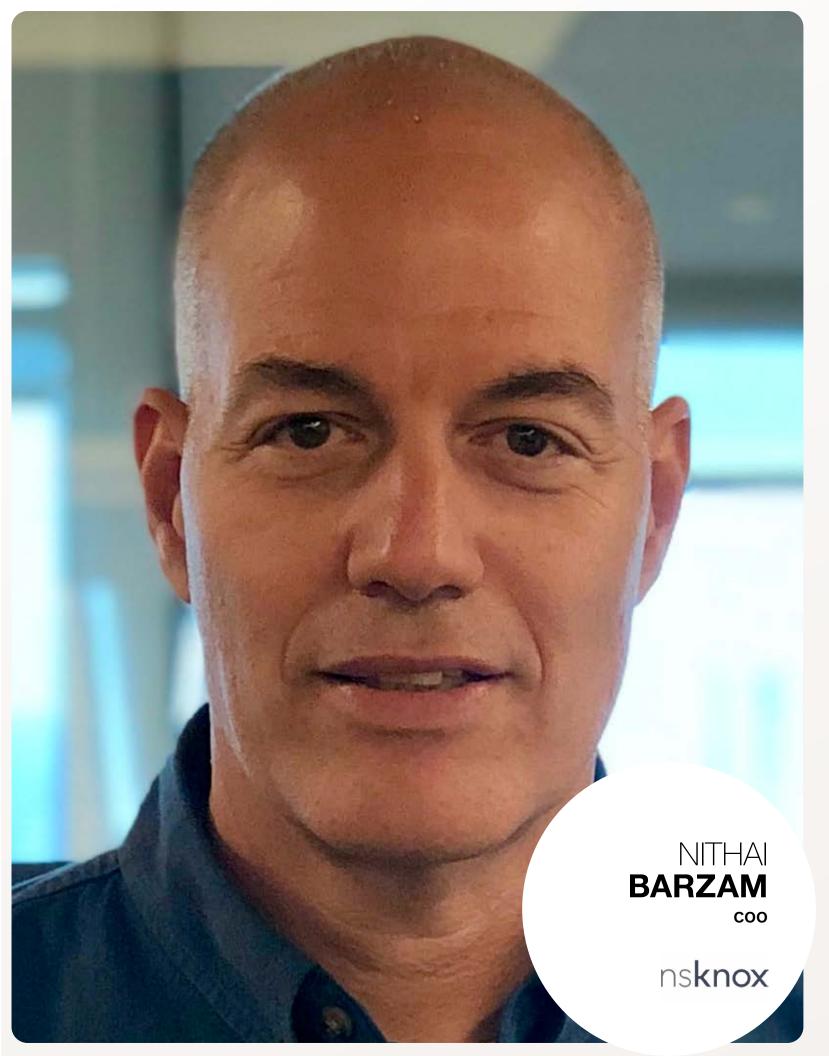
And with that groundwork in place, providers such as Modern Treasury are in place to help accelerate the adoption of real-time payments, helping client enterprises move beyond the limitations of batch-based processes. Modern Treasury's platform and API-driven approach, he said, can help companies grapple with the challenges of sending and receiving requests for payments or how to deal with exceptions and disputes, while ensuring that risk management and fraud prevention measures are in place.

"We can build all of this into our software so that as companies become broadly ready to adopt these new technologies, they can bring them into their businesses," he said.

Along the way, the benefits of modernization will become apparent — chiefly through an improved customer experience (including employees, as real-time payroll transactions become more widely prevalent).

The emergence of FedNow and the interoperability of real-time payment schemes will change the ways that treasurers interact with B2B trading partners as they scale into new markets. With reduced lag between the time they need to collect and disburse funds, there is less volatility and exposure to rapidly changing foreign exchange (FX) rates, he said.

"People will have a clearer view of where their money is and the timing of when money comes into and flows out of different banks, in different regions," Marcus told PYMNTS.



INSTANT AND AUTOMATED PAYMENTS

MAKE TEMPTING TARGETS FOR FRAUD

aster B2B payments, back-office automation and alternative payments are all advancing rapidly, but these advances are creating new opportunities for fraudsters, so expect the innovation war between legitimate businesses and bad actors to heat up, not cool off.

Taking the long view on fraud for PYMNTS' "Executive Insights Series - The Next Three Years," Nithai Barzam, chief operating officer of B2B anti-fraud FinTech nsKnox, laid out an ambitious roadmap for the company, which is innovating to keep pace with digital transformation trends.

"Everybody talks about faster, real-time immediate payments," Barzam said. "This is great to be able to pay quickly, and definitely great to receive money quickly, but it also opens the door for what's known as 'faster fraud' and closes the window on the time to confirm compliance within anti-money laundering regulations and anti-terror financing regulations."

That being the case, investments nsKnox will pursue over the next 36 months will be specifically targeted at providing enterprises and banks with technologies that keep watch over automated processes and safeguard the activities of payments firms on their own three-year journeys.

With the B2B payments space growing more complex and in accelerated time, nsKnox intends to focus on "creating more visibility between payers, payees and the banks that serve all of them to protect money against payment fraud."

Barzam said that by making security harder to beat, "we can help accelerate the transition that enterprises are making into digital payments, definitely from checks, which surprisingly in the U.S. is still significant for B2B payments, but also the adoption of new payment platforms and alternative payment providers."

See also: The FinTech Risk Management Playbook

The Benefits of Visibility

Observing the migration to accounts payable (AP) and accounts receivable (AR) automation that many companies are undertaking now, Barzam said he understands the business imperative to do so. He also acknowledged that automation, in many cases, leaves a door unlocked for fraud.

With an approving nod to the efficiency and lowering of human error that automation brings, he added that "all the handovers between people and systems and between systems, unfortunately, offers an opportunity for fraudsters to introduce new techniques, malicious software, and credential theft that can interfere within the payment flow or throughout the transaction journey."

That fact places application programming interfaces (APIs) — especially open APIs — high on the nsKnox list of priorities over the next three years, as these connections can be an access point for sophisticated fraudsters.

"Now that everything is between multiple people, multiple teams, multiple systems, with all these handovers, to make sure you're secure, you need something external to all this, which is not impacted by any single system or any single individual and prevents a single point of failure," he said.

Anomaly detection using artificial intelligence (AI) is an area set for more investment and innovation, but in explaining the whys and wherefores, Barzam illustrated how much work this requires. He used remote account validation to make his point.

He said anomaly detection is problematic in account validation as "every new vendor is an exception. You want a deterministic answer: Is this true or not? Is this right or not? But there are some fraud cases that you could identify through use of anomaly detection," like a vendor that always pays in U.S. dollars suddenly, inexplicably switching to British pounds.

To combat just this kind of scenario, nsKnox introduced its **Bank Account Certificate** this year, which validates banking information and credentials in transit and at rest in a verifiable way.

"If I'm going to summarize all this," he said, "it's to say we need to provide corporations and banks with security that goes beyond signatory rights, that makes sure that there's more visibility between payers, payees and their banks in a way that when the bank actually processes your transactions, they know they're processing something valid."

Read also: Auto Verification of Bank Account Owners Is Key to Sanctions Compliance

Security Investment on the Three-Year Plan

One trend begets another, and so Barzam said he sees it with buy now, pay later (BNPL) alternative credit, which is making major inroads into B2B, as are the security threats attending it.

"I think we're all familiar as consumers with a lot of alternative payment methods out there that businesses are starting to adopt simply because these providers are starting to offer their services to businesses," he said. "When we talk about payment security and payment fraud, it's not going to remain in the realm of the payer-payee and the banks, but also with these alternative payment providers. Our investments will definitely go in this direction as well."

This is all happening at a time when fraud is increasingly well-organized and financed, with access to the best digital tools money can buy and criminal master coders to run it all. That's a detour on everyone's three-year plan, and Barzam has some advice on that front.

"[Fraud rings are] investing heavily in technology and in process, and they operate like businesses," he said. "They'll try to figure out what makes sense and what to invest in. That's why we're seeing fraud evolving the way it does. It's going to continue to be a game of chasing one another. My advice would be: Do not become the weakest link. Let the fraudster go to the house that doesn't have locks on the door and an alarm system."



PENENVOY CEO **AUTOMATED AP DEPARTMENTS** WITHIN 5 YEARS

he accounts payable (AP) department is about to find itself short-staffed. As OpenEnvoy CEO Matt Tillman told PYMNTS' Karen Webster: "There's not a lot of people moving into the profession, and there are many people who are retiring from that profession."

Labor costs, too, are on the rise, which indicates that the AP team, tasked with making the payments a company owes its business partners and creditors, is likely to squeeze operating margins.

At the same time, there's been an "explosion of opportunity" for the automation of remittances and payments, which in turn improves the accuracy and productivity of those workflows.

Increasingly, he said, technology is solving the friction and the fragmentation that has been the hallmark of document digitization and workflow automation, where point solutions were dominant (a company had a credit solution in place, for example, or a tax reporting solution, siloed in each department, respectively).

Moving Beyond Point-to-Point Solutions

Getting the point solutions to connect and talk to one another used to be a massive undertaking, he said. Executives had to mull whether they wanted to tackle that technological challenge in house. The technical heavy lift is made easier through the use of application programming interfaces (APIs), such as those on offer from OpenEnvoy, that bring the AP function a fully automated end-to-end flow.

This means that, sooner rather than later, the AP function will likely be the domain of systems — of software and hardware — absent the human touch. The wheels are in motion here, with the inexorable trend toward automation put in place by the pandemic.

COVID-19 forced us all to scatter from the office, work from home, and wonder why we were spending all that time in the office, jousting with NetSuite, QuickBooks and spreadsheets in the first place.

The tedium has been so palpable, he said — only a bit tongue in cheek — that half of all AP departments were hired simply because executives did not want to have to be the ones looking at the AP systems.

The rise of the machines has at least some operational advantages over humans, fallible as we are. Individuals, after all, are not that good at running algorithms in their heads, at remembering website logins or whether invoices have been paid. What they are good at is crafting strategy, new products and innovations that transform industries and drive top-line momentum.

The advantages of tech — acting as the layers of AP "translation" rather than people — coupled with the waning enthusiasm of individuals to perform manual tasks day in and day out will reshape the AP department itself.

As Tillman predicted: "We'll see fewer people in these departments in three years, and I'm a firm believer that humans are not doing this job at all in five to 10 years."

In the Year 2025

Fast forward to the middle of the decade, said Tillman, and B2B interactions will be markedly improved as a result of AP automation's realities. Buyers will have better leverage over their suppliers (and even payment vendors) to negotiate terms.

Back-office operations will be more fully integrated, he said, as operations teams and sales teams can be on the same page regarding cash flow requirements and supply chain issues. Tillman noted that within any supply chain — and particularly with firms that are manufacturing goods — there are several links within that chain, stretching across any number of vendors and subcontractors. Automating AP can ensure that firms are not making the mistake of paying for goods and services twice (there's that human fallibility again). The answer lies not with throwing more people at the problem, but in throwing machines at the AP pain points themselves.

"No one wants to do this job, and the costs are going to get exorbitantly high," Tillman said.

Technology, he told Webster, ensures that finance teams can think "more like businesspeople and less like bookkeepers."





PAYMENTS LOCALIZATION, BNPL AND CROSS-BORDER 3-YEAR ROADMAP

n economic crises, companies often reflexively clamp down on new product and market development, when in many cases such times can be exploited as springboards to growth.

Speaking with PYMNTS for the "Executive Insight Series: The Next Three Years," PayU Global Payments CEO Mario Shiliashki talked about the payments service provider's (PSP) own journey to expand into high-growth emerging markets, and what investments will best serve its clients on a three-year timeline.

"We constantly think about this," Shiliashki said.

"Where do we continue to invest? Where do we prioritize investments in an industry that's constantly changing? We're already in some turbulent times for the world economy. When that happens, people tend to pull back and refocus on the basics and the core business."

Rather than pull back, PayU is among more forward-looking PSPs that are instead hammering away at local payment methods, enhancing infrastructure to keep approval rates and fees optimal, improving transaction monitoring and fraud detection to reduce false positives, and other elements of differentiation that add up to "being a truly global provider."

"We're going through our annual planning process," he said. "There are two main focus areas for us. One is our core payments business, continuing to invest infrastructure-wise on getting better at analytics and data, providing the best analytics both internally, as well as to our clients and merchants and partners."

Additionally, PayU will continue investing "around fraud management. How do we make sure that we are best in class?"

The second part is "expanding to new products and new geographies. We'll do it either organically or via partnerships" insourcing and outsourcing.

See also: BNPL Seen as Financial Inclusion Tool Across EMEA

Pilots and Partnerships

While strengthening its core, PayU is already working on new or improved services.

On the buy now, pay later (BNPL) front, Shiliashki said, "We have launched pilots and partnerships in a number of markets offering credit at the point of sale, whether it's installment credit or buy now, pay later credit, which in many of our markets still is fairly nascent."

In many emerging markets BNPL is "not the battleground as we see in the U.S. or Western Europe," he said, "so we think there's a massive opportunity there to expand." It's part of a long-term mission to offer virtually all payment options in PayU's 20-plus markets.

Cross-border is on the whiteboard as well. "This is where it becomes exciting when we talk about crypto," he said. "How can we leverage new rails rather than existing rails to implement instant or near instant cross-border settlements ... using crypto rails rather than traditional rails?

"We're investing there to experiment and see if we can actually stand something up that is really scaling. It's one thing to do a test and a pilot. It's another thing to scale an operation."

Optimizing for new markets also factors into future growth for PayU and its clients.

Shiliashki said that when merchants reach out to PayU, "They're looking at their approval rates and their costs in a market like ... Argentina. They see that their global provider is getting [them] approval rates of 30%, 40%. Crazy numbers. We're not talking 90% plus. That's when they come to us and say, What can you do? Can you double that? Yes, we can. With local processing we can more than double these approval rates."

See also: PayU Buys Colombian ePayments Company Ding

Managing for Complexity

Looking ahead to 2023 and beyond, Shiliashki said PayU will stay focused on serving merchants globally and regionally, using a single integration to access a host of services.

"Extending capabilities is something that we will continue to invest in. That means all the relevant local payment methods, all the infrastructure that make our approval rates and our pricing best in class." He's also a keen observer of regulatory trends which he expects will become more of an issue for merchants, from the most developed economies to some of the least developed.

"We try to take that complexity out by having our own local experts in each of these markets. This is one of the reasons why global merchants and global eCommerce players work with us, is beyond the optimizing of the payments and transactions, is also that advice on how do you set up the local entity? How do you think about tax issues in the local markets?"

This is where PayU's local presence, along with on-staff compliance and tax experts, are providing value to global merchants on crafting offerings for local populations.

"All of those questions become really important to someone that runs a global eCommerce business," he said. "We try to take that complexity out by having our own local experts into each of these markets."



REAL-TIME PAYMENTS WILL SPARK LENDING'S DIGITAL

TRANSFORMATION

ogi Berra supposedly once said: "Predictions are hard especially about the future."

In an interview with PYMNTS, PSCU President and CEO Chuck Fagan acknowledged the challenge of knowing what's ahead. But some trends can provide a roadmap to what's next for financial institutions (FIs), and for credit unions in particular.

Throughout the pandemic, the shift to doing things digitally was all-encompassing and changed how consumers connect with their Fls.

As Fagan noted, it takes 21 days to create a habit, and more than 65 days to cement a behavior. Three years in, it's safe to say that consumers have gotten used to managing their financial lives online.

The Digital Lending Opportunity

Among the most seismic shifts we'll see over the next three years: There's a huge opportunity within lending to consumers and businesses, said Fagan, who added that the traditional risk scoring factors no longer apply in the age of Big Data. Simply relying on static data such as current income and debt and employment history are decidedly "old school" and lending in the 21st century demands a more personalized approach.

The advent of instant payments, as the Federal Reserve rolls out its FedNow service next year, will also be a game changer — and will help transform lending, too. There's some precedent here, as Uber, for example, has enabled faster payments to its drivers.

"Financial institutions are going to have to recognize the impact [of FedNow] on ACH, on debit cards and other ways of moving funds. Over the next three years they are going to have to be ready to go 'real time." Against that backdrop, said Fagan, CUs have an advantage in helping get funds to the small businesses and merchants that line Main Street and power the U.S. economy.

"The traditional ways of disbursing a loan can be displaced in favor of these faster methods," said Fagan.

The Branch Transformation

The branch experience will continue to change as a result, he said, and three years from now will look markedly different than before the pandemic.

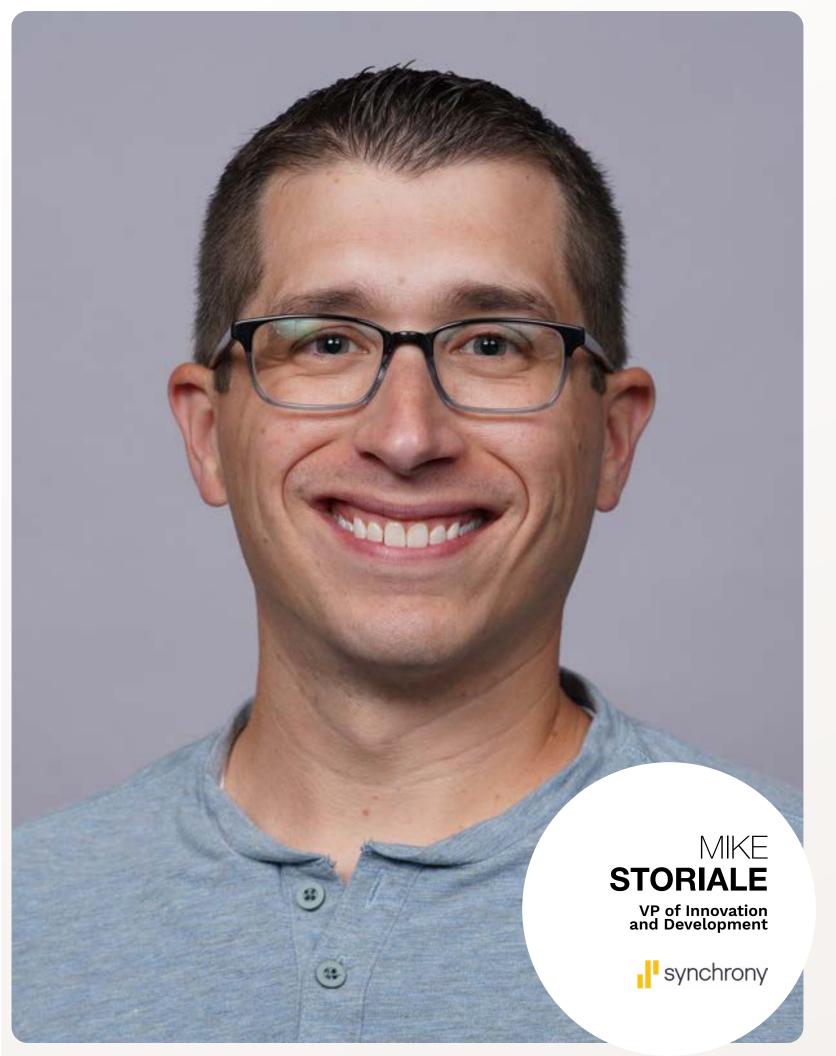
"The branch evolution should be really fully ingrained by then so that life-changing events [like] buying a house, planning for education, retirement," he said, will find value through the in-person consultation. The transactional side of the equation will be left to the digital channels, with blockchain in the background as a tool that can replace some of the manual processes and paperwork.

For the FIs themselves, the digital channel is no longer just a box to check. Consumers have gotten used to banking with their mobile devices and tablets in hand. In crafting new and surprising ways to keep banking customers digitally engaged, said Fagan, FIs will have to offer clients new ways to transact. That includes crypto, which is moving from being an investment vehicle toward mainstream commerce.

And though some of the particulars of crypto-based commerce are still being hammered out, CUs will need to stay abreast of current trends, regulations, and consumer demand. To that end, he said, PSCU has set up a microsite on its own website to help educate CUs on crypto trends.

No matter the payment method, data will be the means by which CUs can make all manner of services relevant, safer and personalized for their members.

"The digital channel must be as efficient or more efficient than the more traditional means of connecting and utilizing a financial institution," Fagan told PYMNTS, adding that with the great digital shift, "there's no going back."



MOVE OVER, **GEN Z TO START CALLING THE SHOTS** IN PAYMENTS

hen we see what's transpired in the past three years, the utility of long-term outlooks becomes clear as the businesses that paid attention to trendlines in 2020 in many cases survived and thrived under extraordinary conditions stretching into the here and now - and after.

In that spirit, PYMNTS' series "Executive Insights: The Next Three Years" is asking experts in different sectors of the connected economy to break out the magic eight ball and identify trends shaping payments in the coming three years — a tough ask given historic levels of uncertainty.

Speaking with **Synchrony** Vice President of Innovation and Development **Mike Storiale** for the series, PYMNTS found members of Generation Z as the ascendant consumers, with their unique view of how to shop and pay emerging as a defining force in commerce and payments in the near future.

Commenting on a study of Gen Zs conducted by Synchrony, Storiale told PYMNTS, "Gen Z is really changing the shopping landscape as we know it. They're shopping online differently. They're using things like **TikTok** to search for the products. There are 7.3 million Gen Z workers in the U.S. already. When people look at Gen Z and think they are a small group, that's certainly not the case."

Not only are their shopping preferences different from other cohorts, but their payments partialities also play an important role from eCommerce to physical retail.

Storiale said Gen Zs "view their purchases very differently than generations that came before them. While they still favor things like debit over credit, their use of credit is on the rise. What we're seeing is that they want to build a credit history."

That's creating a "really awesome opportunity" for retailers to give younger shoppers financing options where they are in their moment of need.

See also: Synchrony, Fiserv Team to Offer BNPL

The Spread of Embedded

In addition to their desire to become financially empowered, Gen Zs want to shop and pay in different ways from related cohorts like younger millennials. Gen Z believes the experience is just as important as the product, Storiale said — and that isn't something many retailers outside of the luxury space are used to.

"They enjoy getting rewards and benefits for discounts and savings, like what we would expect from other generations," he said. "But unlike some others, they're shopping in channels that maybe feel different."

Synchrony found 47% of Gen Z consumers have made a purchase through Instagram, for example.

Whether it's rising Gen Z payment preference or the larger appetite for contextualizing digital commerce, embedded finance is seen as the prime enabler of new payments experiences. It's not limited to younger consumers, as Synchrony sees embedded finance as a key driver of new commerce and payments experiences crossing generational boundaries in coming years.

"Embedded financing for us is really about bringing financing to a non-financing customer's journey, putting banking or financing in places that you weren't expecting it before," he said. "Synchrony, among others, [is] well poised with the [application programming interfaces (APIs)] that we've built to enable that process."

Bringing finance as experience forward in customer journeys creates new and different opportunities for retailers and brands to engage in ways they haven't before.

Read also: Synchrony Financial Credit Card Delinquency Rate up to 3.1% in August

Lowering Identity Barriers

Powered by anywhere embedded finance, experiences can take several forms that, while familiar to the shopper, convey the new ease and personalization of connected commerce. Looking at what's possible by bringing aspects of a consumer's banking account data into journeys pre-shopping, Storiale said it's starting to widen the aperture on experience.

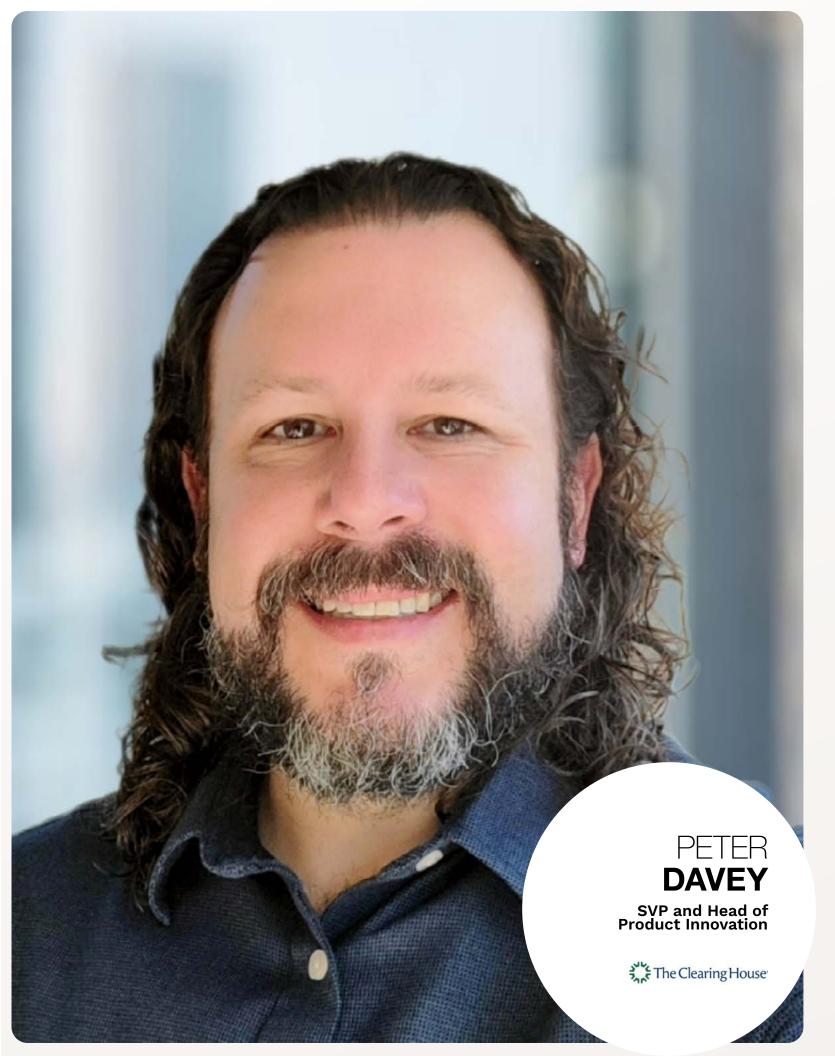
"We typically think of banking at the checkout, that there's going to be a credit offering at the checkout," he said. "But maybe I'm going to bring that way further up the funnel and try to empower something. Or perhaps I'm going to use other aspects that the bank has."

He said he also expects a reengineering of how merchants collect consumer identity data — or don't — to make specific shopping journeys more seamless and less intrusive to members of rising younger demographics who are more cautious with their personal data than generations that came before.

Storiale said he believes new integrations can lower that burden, which is also a barrier to conversion.

"What I see coming in the next few years is the ability for organizations to grab pieces of digital identity, confirm or validate the information that they're going to need to create those journeys, not only that are more seamless, but create better levels of trust than what I think we've seen in the past," he said. "It gets you wondering how we could partner with retailers to perhaps help the retailers get the information they need, but make the customers feel like ... this is coming from a source [they] already trust."





TCH SEES 'MINDSET SHIFT' DRIVING **INTEGRATED INSTANT PAYMENTS GAINS**

s much as COVID-19 gave digital tech and payments a boost, many industry experts think the next three years may hold similarly grand advancements, particularly when it comes to faster payments.

For Peter Davey, senior vice president and head of product innovation at The Clearing House, the road to 2025 will be a greenfield opportunity for instant payments gains on a global basis, with a focus on integration first, followed by innovation later.

"The infancy of APIs — which we've been in for the last couple of years — will lead toward more embedded services, embedded commerce and embedded banking," Davey said, pointing to the growing adoption of the RTP network, TCH's real-time payments system, and the mid-2023 launch and gradual uptake of FedNow.

Simplification will be critical, he said, "and the smart money is already making those investments right now."

Silos Gotta Go

Davey said there will be a natural progression as institutions and businesses start to collaborate more fully to integrate and automate their systems. Breaking down some of these silos will require some standardization of technology for data sharing. Standardization will lead to further automation of business processes, he said.

"At around year four or five," he said, "you are going to start to see these investments really pay off."

To get there, he said, FIs and third parties will focus on working together to create the ecosystems that can unleash the power inherent in real-time payments. That power comes as a result of the communications that flow across all manner of business and consumer payments.

With APIs, in tandem with the cloud, he said, a significant amount of the technological heavy lifting is made easier, as there's the ability to create layers of integration to make sure payments flow freely and securely.

"The mindset shift is harder," he told PYMNTS, referencing how companies and providers will have to take down some of the "walled gardens" that have been erected over the past several decades by older legacy technology.

Davey said these enterprises will better serve customers upon realizing that users embrace different product sets and services for various circumstances and ecosystems.

The shift will take some time, he said, as wires, cards, ACH payments, and even checks, are firmly entrenched, and businesses have gotten used to making payments across these conduits. More FIs and FinTechs, he added, are seeking providers to help integrate into real-time-payment rails and manage payments exceptions as they occur. RTP, he said, can help ensure that businesses can leverage the benefits of faster payments without any associated back-office hiccups.

Three years of investment and collaboration, he told PYMNTS, "will plant the seeds that lead to consumer and business delight."

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