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Editor's View

Going global

Small merchants have a big opportunity, and ISOs and agents can help them on this path.



The internet long ago enabled the free exchange of ideas and culture around the world, but the flow of money was still very much restricted.

That's changing as new technologies and initiatives make it possible for even the smallest shops to sell their wares across the globe. The same trends are making it easier for international travelers to use their familiar payment products in unfamiliar countries, such as Alipay users who venture to the U.S. from China.

But merchants can't tap into this trend without the right technology and support. Countries still have their own distinct regulations and currencies, meaning there is still a need for someone to handle these complexities.

This presents an opportunity for ISOs and agents to deepen their relationships with their merchant clients by serving as a guide to these newly available markets.

And as technologies like blockchain and faster payments develop, more of these markets will open up and more merchants will want access to a global audience.

—Daniel Wolfe

Mobile Wallets



Costco takes only a slice of Apple Pay

Costco's acceptance of Apple Pay doesn't give it the full range of cards supported by Apple's mobile wallet.

By Kate Fitzgerald

Along with activating contactless payments at its store terminals, Costco has opened its checkout lines to Apple Pay, Samsung Pay and Google Pay. But there's a catch.

Costco confirms it still accepts only Visa credit cards at its stores, including through digital wallets, as part of the deal it struck with Citigroup when it split with longtime cobranded credit card partner American Express in 2015.

Because Apple Pay and the other wallet apps are digital form factors for existing cards, the merchant sets the parameters on which cards to accept, and Citi's deal with Costco specifically narrows acceptance to Visa. The same restriction does not apply to debit cards accepted at Costco.

Costco rolled out the Costco Anywhere Visa card in mid-2016, equipping the entire 7 million-plus credit card portfolio with EMV contactless technology. For about two years, Costco co-branded credit card users were unable to use the feature at Costco stores until the terminals went live this month.

It's no coincidence that Costco has opened Apple Pay and others along with contactless card payment at its terminals, said Richard Crone, CEO of Crone Consulting LLC.

"Cobranded card deals include specific interchange pricing, and Costco is getting that pricing from Citi and theoretically on Visa cards, so Costco wants to stick to that plan," Crone said.

But time saved by speeding up

customers at the checkout point also translates to more money in Costco's pocket, so adding contactless and mobile payment is an advantage, according to Crone.

"EMV checkout is painful and slow, and Costco wants to find any way around that, first through activating contactless for the Near Field Communication-enabled Citi Costco co-branded cards, and now by riding the coattails of Apple Pay and others," Crone said.

Contactless cards are ubiquitous outside the U.S., with mass merchant adoption in Australia, the U.K. and across most European markets. Up to 20% of all transactions are contactless in most of these regions, according to a report from A.T. Kearney.

U.S. issuers were late to the contactless card movement because of a false early start a decade ago when terminals weren't ready. Afterward, in the rush to meet the October 2015 EMV liability shift, most issuers skipped adding contactless technology because there was still no critical mass of NFC-ready terminals.

Costco's U.S. gas pumps are designed to accept contactless payments, but that feature is not yet live. The chip-card liability shift goes into effect for U.S. gasoline merchants in October 2020 and many are working to reconfigure their pumps.

Citi was the first U.S. issuer to commit to a fully contactless credit card portfolio, embedding the latest generation of EMV contactless in all of the Costco cards.

EMV contactless card payments are accepted at a few major merchants, including McDonald's and Walgreens.

Most older contactless-enabled terminals, including unattended vending machines, do not recognize EMV contactless cards. **ISO**

Pot payments



Cannabis processors fight a complex war

The companies that want to process cannabis payments are also confronting crypto regulations.

By John Adams

State laws on marijuana are confusing and constantly changing, as are the laws governing the cryptocurrency that's a possible solution to reduce dispensaries' reliance on cash.

Many cannabis sellers have trouble getting a bank account or acquirer relationship due to their conflicted legal status at the state and federal levels. Despite their category's regulatory complexity — or perhaps motivated by it — a new breed of merchant acquirers is slicing through the thick government red tape to process cannabis payments, one state at a time.

"The medical and recreational cannabis industry is relatively new with many gray areas in terms of regulation," said Ken Ramirez, co-founder and CEO of Alt Thirty Six, a Tempe, Ariz.-based payments platform for the cannabis industry. "These gray areas and different regulations within each state can cause confusion, but also promote innovation."

Alt Thirty Six is applying for money transfer licenses in Oregon, Nevada and Colorado and is considering an application in Vermont, which recently became the first state to legalize marijuana

na legislatively rather than through a ballot initiative. The company is already active in California and Arizona.

While state laws vex legal cannabis payment providers, cryptocurrency regulations are also a challenge, given the volatility of rulemaking. In late July, the Financial Action Task Force published a report that contained recommendations for risk mitigation in cryptocurrency.

Alt Thirty Six hopes this provides clarity to ease regulations for cryptocurrency.

Alt Thirty Six recently entered into a partnership with CannTrade to support the cryptocurrency Dash for cannabis payments. The blockchain technology allows real-time payments that take less than one second, cutting the exposure to rapidly changing cryptocurrency valuations.

"FATF published reports with the aim to help financial institutions fight cryptocurrency money laundering and terrorist financing," Ramirez said. Alt Thirty Six's goal is to go above and beyond current regulations, or to evolve its compliance protocols as new guidelines and laws develop. "In fact, many law enforcement and state governments frequently propose rules, bills and acts to regulate cryptocurrency financial institutions, which often causes confusion."

Cryptocurrency can work as a cannabis payment alternative, but it is a heavy compliance lift on the federal level as well.

Cannabis is still illegal under federal law and cryptocurrency regulations are, to be kind, confusing. The federal government has taken a more permissive stance recently, with prior foes of legal cannabis such as former U.S. Rep. John Boehner actually investing in the industry.

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Regulation | **Pot payments**

expands, it has taken on the challenges of more traditional merchant acquiring, such as CRM and inventory management around seasonal spikes such as the 4/20 "weed holiday" before shedding the rudimentary compliance challenges such as figuring out where cannabis is legal as a product.

"The federal government can still apply its regulations, such as CFPB rules, as the cryptocurrency is likely to fall under prepaid regulations," said Tim Sloane, vice president of payments innovation at Mercator Advisory Group, adding compliance with the Bank Secrecy Act could also be in play. "It would probably be wiser to identify the regulations that would be the easiest to comply with and then address all aspects of them, such as a prepaid closed loop or restricted authorization network."

Alt Thirty Six isn't alone. Tokes uses a blockchain to manage compliance for the entire cannabis supply chain, anticipating risks beyond cryptocur-

rency and the legal status for cannabis as a product. And CanPay Tuesday announced it has launched its payment platform to 115 retailers in New York, Pennsylvania, New Hampshire, Massachusetts, Maine, Maryland and Florida, placing CanPay in 16 states plus Puerto Rico. It plans to enter Rhode Island, New Jersey and Vermont sometime this year.

CanPay's model is different, using a closed-loop network of about two dozen banks to support debit payments for legal cannabis. This makes compliance easier because dispensaries in its network must be in a regulatory-approved cannabis banking program, said Dustin Eide, CEO CanPay, adding there are some complications since not all states allow in-store, e-commerce and delivery for cannabis.

CanPay also avoids blockchain and other emerging payment models to keep things simple for users, Eide said. "The more traditional service we can provide, the more likely it is that con-

sumer and businesses will adopt it."

By working within guidelines that appear to be ever-shifting, CanPay developed a closed-loop debit network for cannabis stores, and is live in 17 states and Puerto Rico.

CanPay works with approximately 25 banks to create a private debit network and uses ACH transactions to process the payments, not the Visa and Mastercard rails.

The CanPay purchasing experience resembles that of using the Starbucks or Dunkin' Donuts app — the app uses a one-time token and PIN, and a QR code that the cashier scans from the smartphone's screen.

"We want to provide a stable and transparent payment alternative for retailers to be able to offer to their retail customers," Eide said. "It's seamless, just like a Starbucks experience."

It is hard not to draw similarities between CanPay Debit and popular mobile apps from the likes of PayPal, Venmo and Starbucks in terms of how they operate. When CanPay customers sign up for the service they are verified with standard know-your-customer procedures and are asked to download an app.

But like Alt Thirty Six and Tokes, the goal is to reduce cash payments and other regulatory workarounds that are risky for merchants and consumers.

"Cash is definitely still a major form of payment in the industry because of the banking issues that cannabis companies face," Ramirez said.

"There are many 'reverse ATM' platforms out there that use round-about methods to enable customers to use their debit/credit cards to make purchases," Ramirez said. "However, many customers have been burned by these companies because they often lack proper licensing and are working through loopholes." **ISO**



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Small merchants,



global audience

How the payments industry can help small shops become international marketplaces.

By Cheryl Winokur Munk

International e-commerce is booming these days and so too are the opportunities—and challenges—for payments players.

Within the past decade or so, a growing number of payments platforms has targeted international e-commerce transactions, and with good reason. Research firm Forrester predicts that cross-border e-commerce will outpace domestic growth, with a compound annual growth rate of 17 percent between 2017 and 2022, compared with 12 percent for overall B2C ecommerce.

Today, many payments providers that focus on international e-commerce are trying to do more than simply process transactions. They are focusing on solving the various pain points for merchants that make international e-commerce especially difficult. These include significant decline rates for cross-border credit card transactions, a high occurrence of fraud and increasingly burdensome tax requirements. At the same time, payments providers are also running up against an increasing number of challenges, including slews of complex local regulations and the need to build appropriate scale.

To compete effectively, many payments providers are adding ancillary services beyond just processing. These include regulatory compliance, tax compliance, shopper support, chargeback and refund management and fraud detection analysis, payments professionals say.

"I think most processors and payments providers are looking for ways to add value to merchants outside of just payments," said Erich Litch, chief revenue officer at 2Checkout, a global e-commerce and payment platform that allows companies to accept online and mobile payments from buyers worldwide, with localized payment options. "Anything processors can do to do that is going to be a very important area," he said.

Global pain points

Fraud prevention is one area some payments providers are focusing on to deepen relationships with international e-commerce merchants, according to Ralph Dangelmaier, chief executive of BlueSnap, an online payment platform.

Having stellar fraud protection is particularly pertinent to international

e-commerce, given that the fraud rate for international orders is around 1.5 times higher than domestic purchases, according to a 2016 report from CyberSource, a unit of Visa.

"There's plenty of opportunity for others to get into this," said Dangelmaier, who contracts with a third-party provider for the company's fraud detection services.

One sticking point for would-be entrants is that while a payments provider may be well-versed at fighting fraud in the U.S., replicating those services in other countries isn't so easy. For instance, in certain countries the tools available to ensure people are who they claim to be may not be as sophisticated, Dangelmaier said.

Another problem payments providers are increasingly trying to solve is the difficulty merchants have with approval rates for international credit card transactions, according to Igal Rotem, chief executive of Credorax, a full-service acquiring bank specializing in e-commerce payments and services.

Many banks—issuers or acquirers—will decline cross-border transactions for fear of fraud. So while an

e-commerce merchant in the U.S. who solely does business domestically might expect that around 98 percent of the transactions are approved, Rotem estimates that about 30 percent to 35 percent of cross-border transactions are denied at the first attempt; denial rates are even higher in less developed areas of the world.

"This is a very, very big number," said Rotem, whose company was founded to help merchants improve their approval rates. "This is where the pain is and this is where the opportunity is."

Tax management is another area where payments providers are increasingly seeking to help merchants. Traditionally, payments processors didn't get involved at all in taxes. That's because in the past, most online transactions weren't taxed. But little by little, countries realized they were missing out on sales revenue, and they are starting to crack down.

Argentina, for instance, recently instituted a local tax on e-commerce transactions and other countries are weighing the possibility, said Eric Christensen, group vice president of commerce business infrastructure at Digital River, a global provider of e-commerce solutions and the merchant of record for major online brands.

If efforts in countries that tax international e-commerce are successful, more countries are likely to develop tax schemes of their own, Christensen said. "The local governments want their share of those cross-border transactions," he said.

This trend signals a growth opportunity for payments providers. As a result of various new regulations, there more of a need to for payments companies to help merchants with tax-related issues such as proper withholding and reporting in accordance with a particular region's rules, said Litch of 2Checkout.

"Anything that processors can do to simplify the transactions for merchants is an interesting area," he said.

The consultative approach

Some payments companies, like Ingenico, consult with merchants to help them find the best approach for their business. For some this might mean setting up a legal entity within the region where they want to expand.

This offers advantages for payment cost acceptance, but there are additional costs and complexities as well. The rules and regulations are different for each type of payment, said Joe Leija, general manager for North America at Ingenico ePayments, the online and mobile commerce unit of Paris-based terminal manufacturer Ingenico Group.

A merchant can't just put up a website and expect to sell all over the world. "It takes more knowledge and expertise now to expand globally," he said.

Certainly, payments providers that do work in various markets around the world need to have a local expertise and understanding of the requirements in each region. For example, there's PSD2 and GDPR in Europe; and in many markets, payments providers have to have a physical presence to do business.

"Regulations can vary quite widely from one market to the next," and it's important for payments providers to get these things right, said Casey Bullock, general manager of global enterprise e-commerce for North America at Worldpay. "The fines that are tied to these things can be massive."

It's also not always easy for a payments processor to start doing business in another country. For example, it took Worldpay five years to get its credit card acquiring license in Japan in a long and complicated process. "Markets aren't cookie cutter," he said.

One region at a time

Because of all the complexities, it's not feasible for payments companies to specialize in every country. Instead, payments companies should seek to be strong in a few markets and not try to be all things to all people. "Specialization is key," said Leija of Ingenico.

Accordingly, some payments providers are finding success by focusing on one or two international markets for e-commerce, while others are targeting more niche markets around the globe.

dLocal, for example, focuses on emerging markets. The company, whose biggest market is Brazil, is continually broadening its global reach. In mid-August, dLocal announced the expansion of its payments platform to the Middle East and North Africa, starting with Egypt and Morocco. These areas are both considered high growth opportunities based on factors such as regulatory reform, technology advancements and demographics. In Egypt, for example, a population of mostly young shoppers (50 percent under age 30) is driving the transition to online shopping and payments, according to dLocal.

"These nascent markets offer incredible growth opportunities for innovative, trail-blazing companies," said Sebastian Kanovich, the company's chief executive, in a press release announcing its expansion.

"While there are market barriers, many cross-border e-commerce opportunities are emerging in both Egypt and Morocco where governments are making efforts to improve financial inclusion through digital banking supported by payments solutions," he said.

Certainly, payments providers need to acutely understand how customers want to pay in the various markets they are in.

According to 2Checkout's first quarter 2018 benchmark report on digital

commerce trends, Visa and Mastercard continue to dominate among payment methods, accounting for 68 percent of global online sales; followed by PayPal at 19 percent and American Express at 7 percent.

But certain countries show stronger preferences for local payment methods. For example, as a merchant, you can't operate in the Netherlands and not accept iDEAL, said Jochen Kaempfer, a principal at A.T. Kearney who focuses on banking and payments. To sell in Mexico, you need to accept payments through OXXO, whereas in China, the big payment method is Alipay and in Brazil, people tend to use local credit cards.

For payments companies that are very focused on the U.S., it can be a shock to realize that cards aren't the primary method of payment in many countries, Kaempfer said.

What about crypto?

One challenge for payments providers is the proliferation of new payment methods. If you want to maximize sales, you have to support those payment methods across the world and you need to support lots of different currencies, said Litch of 2Checkout.

One area to watch is how payments companies will deal with the world of cryptocurrencies for international e-commerce, said Brandon Spear, president of MSTS, a global B2B payment and credit solutions provider that specializes in commercial transaction management. There are some online merchants who accept cryptocurrencies currently, but there hasn't yet been widespread adoption. "There's still a little uncertainty about how this is all going to play out," he says.

For example, it's still unclear how respective governments will regulate cryptocurrency, whether the underlying

technology can keep up with large number of payments and whether there will be enough liquidity to make them a viable payment option for international e-commerce transactions, he said. Even so, Spear predicts cryptocurrency will eventually become a viable option for international e-commerce transactions.

"It's just a question of time before it ends up happening," Spear predicts.

The importance of scale

It can be very difficult for start-up payment companies to simply jump into the global e-commerce market.

A lot of companies don't realize how much scale it takes to work globally, said Michael Ting, senior vice president of global markets at Hyperwallet, a facilitator of cross-border payments and payouts for sellers on online marketplaces. (PayPal recently inked a deal to buy the company; the transaction is expected to close in the fourth quarter.)

Consider, for instance, the prospect of different tax laws in every region. This could make it even more challenging for new and existing processors to do business in multiple countries, said Christensen of Digital River. Companies may need to hire local experts in each of the jurisdictions, or outsource to a third party. Either option has to be built into a payment company's economics.

Other opportunities for payments providers and ISOs

Another trend that is changing the landscape for payments companies is the proliferation of online marketplaces.

The growth of these marketplaces—and the desire for sellers to peddle their wares internationally—also means multiple opportunities for payments companies on both sides of the business—payments collection and the disbursement of mass payments.

Payouts used handled solely by banks, when it was individual buyers

and sellers working together directly, but that's changed as the marketplace business model has evolved, said Hyperwallet's Ting.

"The fact that there are all these people who are earning really small amounts of money and need to be paid is a new phenomenon. It didn't exist 20 years ago," he said. With thousands and thousands of individuals buying and selling, modern marketplace payments require technology and scale, he said. A lot of the banks are now providing more of the infrastructure to move the money, but leaving the details to innovators to handle the user experience, he said.

There are even opportunities for ISOs to win business in the burgeoning space of international e-commerce.

Many startup merchants can bypass ISOs by working with a global payments company that deals with cross-border e-commerce. But there are also brick and mortar merchants that want to sell their wares online to people in other countries. ISOs have an opportunity to forge partnerships to help their merchants do this—and maintain and enhance that merchant relationship in the process, said Conal Cunningham, general manager at Inovio Payments, a global payment gateway provider whose parent company is North American Bancard.

While many merchants are interested in selling their wares online globally, a typical ISO won't have the connections to allow them to do that. His company partners with several acquirers and ISOs to allow their merchants to sell their good internationally online.

"ISOs don't have to be out of this race. They can compete, but they have to get out of their comfort zone and find some partners to help them deliver what the marketplace is demanding," Cunningham said. **ISO**

Mobile Wallets



Google Pay stands firm on shaky shoulders

The rocky journey from Google Wallet to Google Pay ultimately made the final product stronger.

By David Heun

Did it take Google seven years to perfect its mobile wallet, or did Google Wallet's tough launch guide today's Google Pay?

Google can't underestimate the importance of its maiden voyage with Google Wallet and the lessons the company learned in being one of the first to offer payments through cell-phones in the U.S., said Jack Connors, manager of merchant global partnerships at Google.

In the past year, Google has re-branded Android Pay as Google Pay, expanded into other markets, became a payment option through the Safari and Chrome browsers, and gained some adoption as a mobile pay method for transit cards and storing tickets and

boarding passes.

"The different evolutions of Google's payments ventures are well documented, but I would venture to say that we wouldn't be where we are today" without Google Wallet, Connors said at the annual Mobile Payments Conference. "Any time you are trying to do something new, it is difficult, but this is a multisided market."

To make Google Wallet work, it needed to get the technology to work on smartphones and at point of sale terminals, obtain bank support, negotiate access to the secure element of a handset to store credentials, and educate merchants on acceptance and consumers on its operation.

That was a handful in 2011. Initially,

a consumer could use Google Wallet only with a Citi card on a Sprint mobile phone. Getting traction was difficult at best and near-impossible at worst.

"And the secure element meant the hardware manufacturer had to participate, but if we hadn't gone through that, we wouldn't have moved to host card emulation, which got rid of a lot of the hardware dependencies," Connors said.

The payments industry wouldn't have moved as quickly to tokenization of mobile payments without seeing what Google was dealing with during its initial wallet experiment, Connors added. "You have to start somewhere, and it's the iterations, I think, that have made Google Pay what it is today."

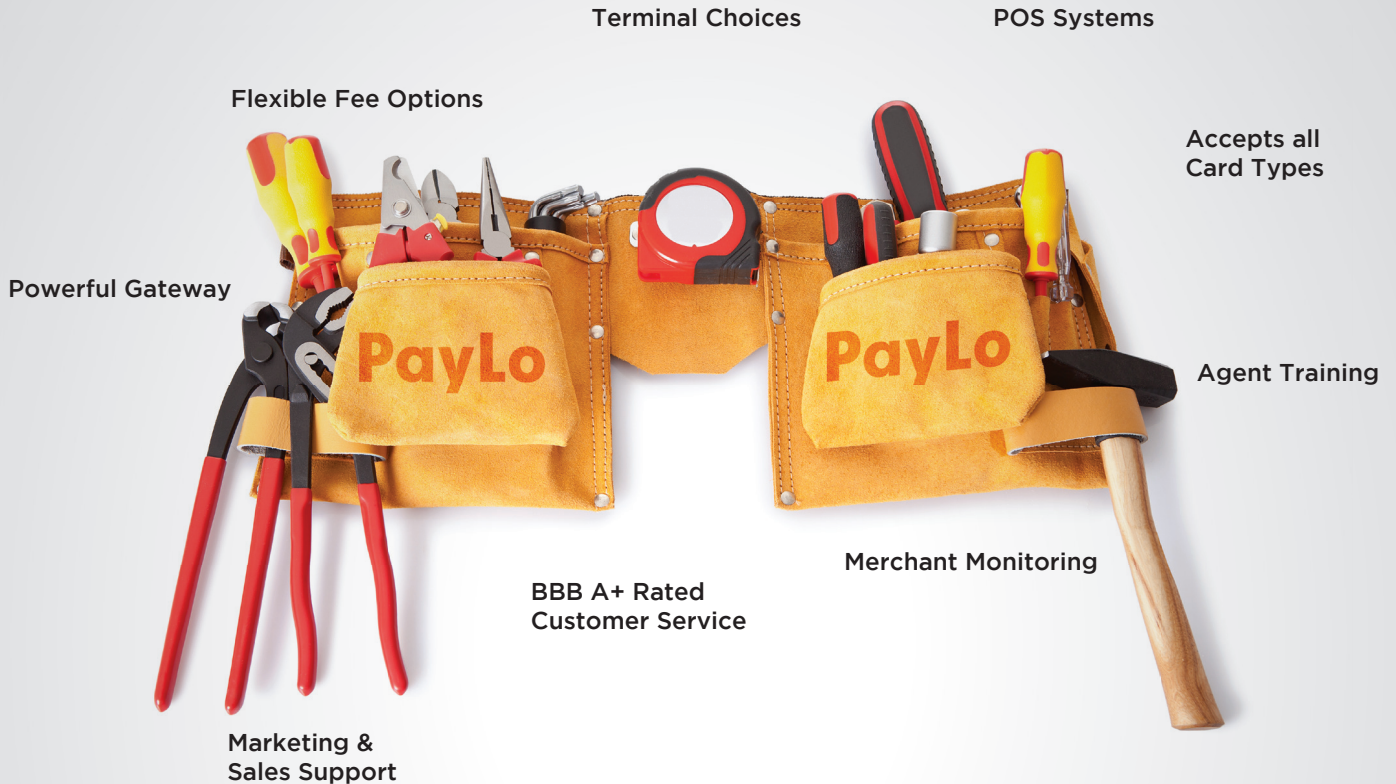
Google also didn't hesitate in establishing Near Field Communication as its connection between the consumer device and the POS. It was a technology that the short-lived Softcard and, eventually, Apple Pay would also adopt, reinforcing what Google had in play at its starting gate.

All mobile wallet providers have taken a similar path "to reach their unique value adds," Connors acknowledged, but it was especially vital for Google as a pioneer in the field to learn about what it would take to keep mobile payments on an upward trajectory.

Google Pay is a significantly different look than what the search-engine company deployed about 15 years ago to get e-commerce merchants engaged with customers and receiving online payments.

"We have always viewed ourselves as an enabler for merchants," Connors said. "If you wanted to sell something, you could advertise on Google.com, and the consumer would go to the merchant website and, hopefully, fill out a web form with their name, address and credit card credentials." **ISO**

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Point of sale

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Source: Capterra

How new mPOS hacks make vendors safer

Newly exposed mPOS vulnerabilities put vendors on the spot to patch things up.

By John Adams and Karen Epper Hoffman

After researchers exposed how hackable mobile point of sale systems are, vendors quickly shored up their defenses — while also blaming some vulnerabilities on payment methods they characterize as outdated.

iZettle, PayPal, SumUp, and Square all countered researchers' contention of security vulnerabilities via unattributed statements saying they have fixed the vulnerability in question and minimized the scope of any threat.

Researchers from Positive Technologies demonstrated at the recent Black Hat conference ways to hack seven mobile point of sale readers from Square, SumUp, PayPal and iZettle, which PayPal expects to own by the third quarter. The contention of security

problems comes as billions in investments flow through the mobile point of sale industry.

Mobile point of sale terminals have been a lifeline for micromercants and small businesses for most of the category's existence, but the companies behind this technology are taking on debt or shelling out billions of dollars in acquisitions to diversify services and reach a larger range of retailers. There's also security pressure on the industry, since PCI scope reduction is part of the appeal for mobile point of sale hardware.

The researchers demonstrated vulnerabilities that allow man-in-the-middle attacks, fake code, the ability to alter transaction values via magnet-

ic stripe and remote attacks such as denial of service. Square did not provide an executive for an interview, but confirmed it has dropped Miura M010 readers in favor of contactless and chip card readers. Miura did not return a request for comment.

In a statement, Square said the M010 was offered as a stopgap, adding Square accelerated plans to drop support for the M010 and transfer to a free Square reader for contactless and chip. "It's important to note that this is not a vulnerability in any Square hardware or software, and we have no indication that any Square sellers have been impacted by it."

PayPal would not comment beyond a statement saying: "Security is a top priority at PayPal and we recognize the important role that researchers and our user community play in helping to keep PayPal secure. PayPal's systems were not impacted and our teams have remediated the issues raised by the researcher."

iZettle, a Stockholm-based mPOS company that PayPal is in the process of buying, provided a similar response: "Security is paramount to iZettle. The issue flagged to us by the researcher is resolved, and the iZettle service and its community remain unaffected... At iZettle, we comply with the highest security standards in our industry. We perform thorough security checks of every merchant who wishes to use the iZettle service."

Like PayPal and iZettle, SumUp also issued an unattributed statement: "SumUp can confirm that there has never been any fraud attempted through its terminals using the magnetic stripe-based method outlined in this report."

SumUp added more detail, saying the "magnetic stripe" trick uses an obsolete technology that relies on signatures rather than PINs. It noted

Security | Point of sale

that less than 0.22% of SumUp's current transactions involve the magnetic stripe on cards. SumUp says it has "successfully" removed any possibility of such an attempt at fraud in the future.

The type of attack typically depends on the ultimate goal of the attacker. For example, a cyber-criminal might send an arbitrary command to the mPOS system as part of a larger social-engineering attack that is aimed at getting the cardholder to run their transaction again through a less secure channel.

Whereas by tampering with transaction amounts, hackers could make a \$5 transaction at point-of-sale look like a \$50 transaction to the cardholder's issuing bank. RCE exploits allow attackers to access the device memory, effectively turning a mPOS reader into a mobile skimmer from which they can electronically collect cardholders' account information.

"Normally, a [customer] goes into a business and interacts with the payment terminal directly, or hands their card to the merchant," researcher Leigh-Anne Galloway said during her Black Hat presentation. "The transaction goes to the merchant acquirer, that talks to the issuer. ... But with the mPOS [transaction], there is no relationship directly with the merchant acquirer." Merchants "work with the mPOS provider, who may or may not be assessing security risk."

The researchers partly place the blame on lower prices for mobile point of sale hardware, which are offered at less than \$100 for some models, affecting the level of security that is put into the devices.

"Commonly the manufacturer and the vendor of the mobile point of sale terminal are separate," said Leigh-Anne Galloway, the cybersecurity resilience lead for Positive Technologies. "With an

outside provider, there's less consideration for the ecosystem."

There's also a compliance factor, in that companies rarely do more than protect their systems beyond what's required, Galloway said.

Square manufactures its own hardware, softening the risk, according to Galloway (Square confirmed it manufactures its hardware in-house). "If you manufacture your own product, there's more of a holistic consistency across the board," Galloway said.

Square faced similar allegations dating back to when its only product was a small magstripe reader that plugged into the audio jack of a smartphone.

The rival terminal maker Verifone demonstrated how a rogue application paired with Square's device could turn it

into a card skimmer; shortly thereafter, Square received an investment from Visa and began talking openly about plans to add encryption.

But there is some good news, since unlike retailer data breaches over the past few years, it wasn't real crooks exploiting vulnerabilities in mobile point of sale systems.

"Mobile point of sale certainly has seen its share of security challenges over the years, which is not surprising given the pace of innovation here," said Julie Conroy, a research director at Aite Group.

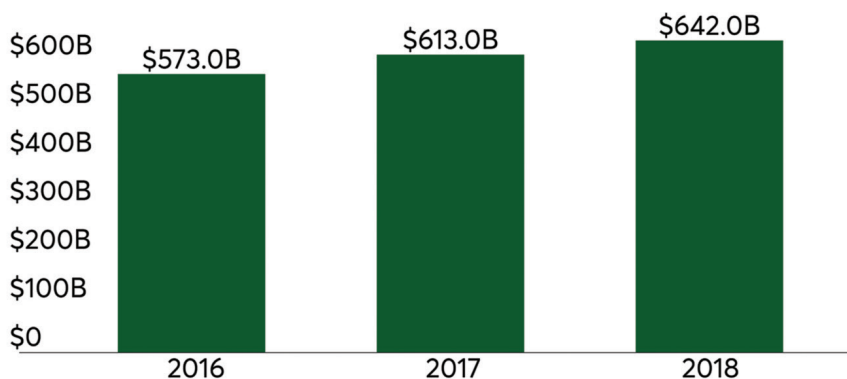
"I think what you have to keep in mind is that the Black Hat revelations were mostly based on lab exercises—we haven't seen a lot of these exploits in the wild yet." **ISO**

The advertisement features a stylized green cityscape background. At the top center, it reads "20 YEARS" in large, bold, black letters, with "www.usaepay.com" and "866.490.0042" below it. A prominent red banner across the middle contains the text "USAePAY" in white, bold, sans-serif font, with "ALWAYS AHEAD OF THE GAME" in smaller white text on a black background directly underneath. In the foreground, a silver top hat with "USAePAY" engraved on its side sits on a silver base. To the left of the hat, a small toy car is on a track, with a sign above it that says "COMPETITOR". On the ground, there is a large black arrow pointing left, and text that reads "COLLECT \$200 SALARY AS YOU GO". In the bottom right corner, there are social media icons for LinkedIn, Facebook, Instagram, and Twitter, with "USAePAY" written above them.

Cross border

A big market for remittances

Remittance volumes are growing as the global economy thrives, attracting increased competition



Source: World Bank

The battle over big-dollar remittances

More companies are raising the dollar limit for cross-border transfers in key markets.

By Michael Moeser

In the combative U.S.-to-India remittance corridor, Seattle-based Remitly just raised its game by increasing its daily transfer limits to \$30,000 and hiring a Bollywood actor, R. Madhavan, as its brand ambassador.

Remitly's moves are clearly in response to the growing competitive pressure being placed in a key U.S. outbound corridor. On June 4th Xoom (a unit of PayPal) increased its daily transfer limit to \$25,000 to 50 countries including India, Canada, the U.K. and the Philippines.

Additional pressure comes from digital cross-border specialists that have made significant inroads to the U.S. market. These include WorldRemit, which received its New York money

transmitter license just this March, and TransferWise, which cut its fees last November in response to the heating up of global competition. Both companies are based in London.

"The market is competitive and providers compete on not just price but brand trust, ease of use, transfer amounts and transaction speed" noted Sarah Grotta, director, debit and alternative products of Mercator.

The U.S.-to-India remittance corridor represents an almost \$11 billion annual payment flow according to the Pew Research Group. This makes it the third largest U.S. outbound remittance corridor after Mexico and China.

The U.S. to India corridor has been very successful for Remitly, which likely

wants to defend its market share.

"We launched our service in India in February 2015 in order to help India's hard-working overseas community have a secure, fast, and affordable way to send money back home," said Josh Hug, co-founder and COO of Remitly. "As a part of that mission, we've launched an industry-first same day \$30k send limit to ensure our customers are able to send more when they need to."

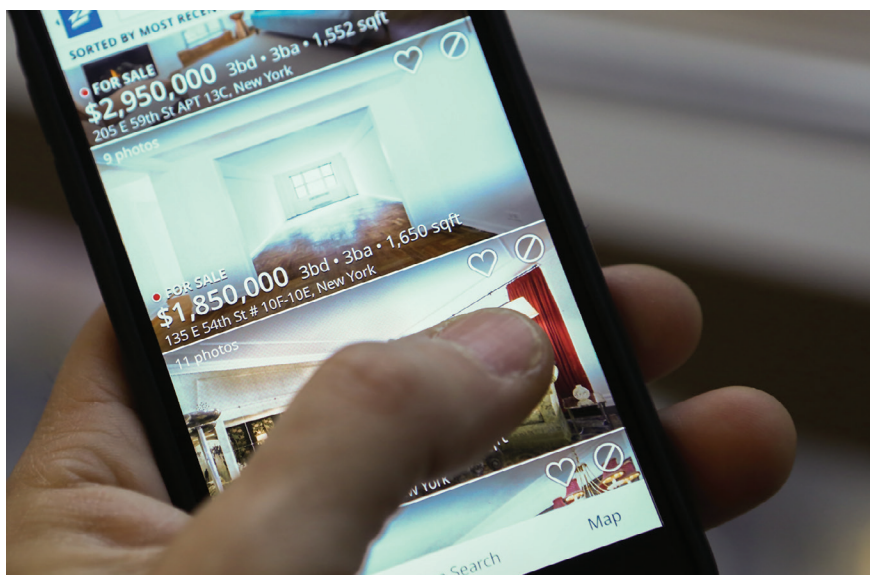
It should be noted that for consumers to access these higher daily transaction limits, remittance companies are required by law to collect critical KYC information. These enable companies to identify consumers, cross-check against appropriate Treasury SDN and OFAC lists as well as provide the necessary government reporting.

There are two major trends that are shaping the remittance industry, prompting companies such as Xoom, Remitly, and even Ant Financial — which tried to purchase MoneyGram last year — to build or consolidate their market share positions.

First, the payment volume of remittances is on the rise. According to the World Bank, the volume of global remittances is expected to reach \$642 billion in 2018, up from \$613 billion in 2017 which is almost 5% growth. The single largest recipient country in 2017 was India which took in \$69 billion, followed by China (\$64 billion), the Philippines (\$33 billion) and then Mexico (\$31 billion).

The second major factor is that the market remittances being sent from the U.S. are going through a digital transformation and very likely globally as well. Using mobile phones to send money cross-border provides consumers with not only convenience, but also allows recipients greater ease to choose how they want the funds to be disbursed. **ISO**

Rent payments



Zillow's effect on digital rent payments

As Zillow enters the market for digital rent payments, existing providers must adapt to its presence.

By Michael Moeser

As the digital rent market attracts new entrants like Zillow, mainstays like Cozy and YapStone are pressured to diversify and seek new audiences for their digital payments technologies.

Zillow is a formidable opponent — the company claims 35 million renters visit its websites and mobile apps each month in search of a home or apartment — and it's far from the only challenge that niche providers face.

Not only is the digital rent check market getting more crowded, it's faced with other big challenges.

"The real estate industry is one of the last big industries to come online," said Gino Zahnd, founder and CEO of Cozy. According to the Federal Reserve, 80% of rent is still paid by cash, check or money order.

The other major challenge is fragmentation. Of the roughly 44 million rental units currently available, Zahnd estimates that up to 75% are owner/operators who have 20 rental units or less, making it difficult for vendors to build scale. "The small landlords invent their own way of working ... As an industry, we have barely scratched the surface in the U.S., which is probably why Zillow has entered," Zahnd said.

Cozy's solution to this problem is to bundle payments with tools such as tenant screening, lease capture and maintenance management.

As for YapStone, its growth strategy now puts it on a collision course with payment processing powerhouses such as Stripe, Adyen and PayPal. It now targets the travel, vacation, rental

and shared economy marketplaces including brands such as HomeAway and VRBO. In May, YapStone launched Kigo Marketplace with Kigo, a unit of RealPage, to provide a platform for vacation rental listings.

To fuel its expansion efforts, YapStone has been very active in raising funds. In February 2018, YapStone completed its latest funding round, which was led by Premji Invest and raised \$71 million.

"It's all for M&A, as acquisitions are clearly part of our roadmap. I probably spend 50% of my time evaluating companies and opportunities," said Tom Villante, co-founder, chairman and CEO of YapStone.

This year's round, which was its Series C, followed a string of successful fundraising and debt placements which provided over \$186 million in capital according to Crunchbase, which tracks funding of private startups. Investors include Accel Partners, Mastercard, and Meritech Capital Partners. Debt financing came from Comerica Bank and Bregal Sagemount in an earlier debt round in 2015.

YapStone expects to generate \$350 million in revenue for 2018, which is seven-fold increase in the last seven years, added Villante.

YapStone partnered recently with PPRO Group, a cross-border e-payment specialist to help it provide alternative payment methods (APMs) local to the various marketplaces serviced by YapStone. Essentially this will allow YapStone customers to be able to access dozens of APMs from around the world, including iDEAL (Netherlands) and SOFORT (Germany).

This effort is critical to YapStone's geographic growth — in many countries, consumers may prefer to use a bank transfer method, direct debit, or other method, Villante added. **ISO**

Regulation



Trump's policies threaten payments, but with little effect

President Trump has put policies in place that threaten the payments industry, but have seldom changed the course of the market.

By John Adams

Since his 2016 campaign, Donald Trump has loomed over the international payments system with a series of threats that are proving increasingly empty.

While it remains to be seen if German Foreign Minister Heiko Maas' call for an independent payment system to save the Iranian nuclear deal will actually happen, the potential severity of such a move joins a growing list of Trump-era potential casualties including remittance bans, foreign technology worker visa shutoffs, canceled mergers and choked fintech collaboration.

All that said, the impact to date has

been relatively muted, and Maas' wish is probably just that.

This recent development in Germany does not involve anything Trump has said or promised directly; generally, he has had little to say about the European payments market.

Maas contends in an open letter that independent European payment rails can save the Iran nuclear deal. Trump in May broke with European allies by saying the U.S. would pull out of the 2015 Iranian deal, in which economic sanctions would be lifted on Iran in exchange for concessions on nuclear

development.

The tie between the Iran deal and payments, as Haas sees it, is European countries won't be able to provide the economic incentives to Iranian companies—particularly Iranian banks—if European companies and banks face punishment from the U.S. for doing business with Iran.

"In this situation, it is of strategic importance that we clearly tell Washington [that we] want to work together. But we will not let you act on our heads [and] over our heads," Maas wrote, according to a translation. "That is why



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it is essential that we strengthen European autonomy by setting up payment channels independent of the U.S., creating a European Monetary Fund and building an independent Swift system.”

How that would happen is unclear, as is the impact on the global economy, the burgeoning cross-border payments market, gig economy payrolls and the card networks. Maas himself says the “devil is in a thousand details.”

It wouldn't be the first dramatic change to payments that was signaled by Trump's rhetoric but never came to be. Trump's plan to strong-arm Mexico to pay for his border wall originally hinged on shutting off remittance corridors. That didn't happen.

Other possible impacts of Trump's proposals on payments volume, such as a crackdown on technology worker visas, or tariffs on Chinese goods, have yet to fully materialize.

Companies that process international payments for contract workers have noticed an uptick in volume that corresponds with possible changes to visas.

The payments industry's most notable casualty of the current political environment in the U.S. is likely the scuttled Ant/Moneygram acquisition, though even in that case Ant has found large market in the U.S. in supporting travel payments for Chinese tourists and temporary residents.

Travelers from China provide the largest source of international tourist spending in the U.S., with more than a decade of double digit growth. Travel and tourism exports account for nearly two-thirds of all U.S. exports to China. Chinese tourism is a particularly important source of revenue for large U.S. cities such as Los Angeles and New York.

These impacts fall far short of the politically driven moves elsewhere, such



Ant Financial's bid to acquire U.S.-based Moneygram fell apart under regulatory pressure.

as India, where government-driven demonetization has sparked a huge move toward digital payments, or China, where government support for outside payment processors is a moving target that's kept Visa and Mastercard from developing business inside China.

The underlying payments technology for cross-border payments is also improving.

JPMorgan Chase has acquired WePay (a Redwood City, Calif.-based company unrelated to WeChat) to support small businesses that sell online internationally, while emerging technology such as blockchain makes it easier and less costly to process the frequent small transactions that are part of e-commerce.

While the Maas plan has some comparison to Russia's independent Mir payment system set up in response to Western sanctions as a way to dilute the market share of Visa and Mastercard, the Russian market is not nearly as intertwined with the U.S. as the European market.

Within hours of Maas' declaration of payments independence, German

Chancellor Angela Merkel, a member of the same political party as Maas, said she was opposed to an independent payment system.

The concept of a distinct European payment system has some political traction in the European Union over the years, though it's not been successful, according to Eric Grover, a principal at Intrepid Ventures.

The Monnet Project, for example, included about two dozen European banks that would have provided a Pan-European alternative to Mastercard and Visa. The project failed in 2013 over regulatory uncertainty and concerns over the sustainability.

“If Maas were simply urging the formation of a new payment system to increase competition that would be a formidable challenge, but I'd applaud it,” Grover said, adding the concept of a distinct European payment system is borne more out of resentment toward the U.S. “The supranational EU at its heart, however, is a political project.”

The challenge for any Swift rival would be to achieve critical mass — and relevance, Grover said. **ISO**

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Digital payments



Vini Mesquita, UL's global product manager for the Identity Management & Security unit.

How 3-D Secure helps UL get into payments

Underwriters Laboratories sees the new version of 3-D Secure as a platform for its expansion into payments.

By David Heun

With the advent of 3-D Secure 2.0, Underwriters Laboratories sees the e-commerce security standard as a launching pad for the company's advancement in the digital payments world.

In working with the card networks' EMVCo standards body, UL is helping push merchant adoption of 3-D Secure 2.0 through its upgraded Self-Test Platform to test and approve elements of the new security tool. The platform helps merchants implement 3-D Secure more quickly by testing the automation process, ensuring it is user friendly and

can scale to the merchants' needs.

The opportunity for UL is to separate the baggage of the 3-D Secure name from the advancements of its 2.0 revision.

"The brands and payments service providers will have to spend some time on the educational side to explain that 3-D Secure 2.0, even though it has the same name as the previous version, is a completely new technology," said Vini Mesquita, UL's global product manager for the Identity Management & Security unit.

"There are new transaction flows,

new messages and more data movement," Mesquita said.

Chicago-based UL brought its security testing and certification expertise to the payments landscape four years ago when seeking to boost tokenization, EMV chip cards and industry security standards.

"Our company has a strong brand when it comes to power certification in a physical world," Mesquita said. "In looking at different things in different domains, we are also moving into this digital space."

The work UL is doing with 3-D Secure testing and advancement represents "just one piece in a big puzzle" that shows the company understands the important of a future digital commerce, Mesquita added.

"Security for payments or any kind of transaction is a way to reinforce our mission, whether it is payments or other domains, and we are definitely moving into the data space," he said.

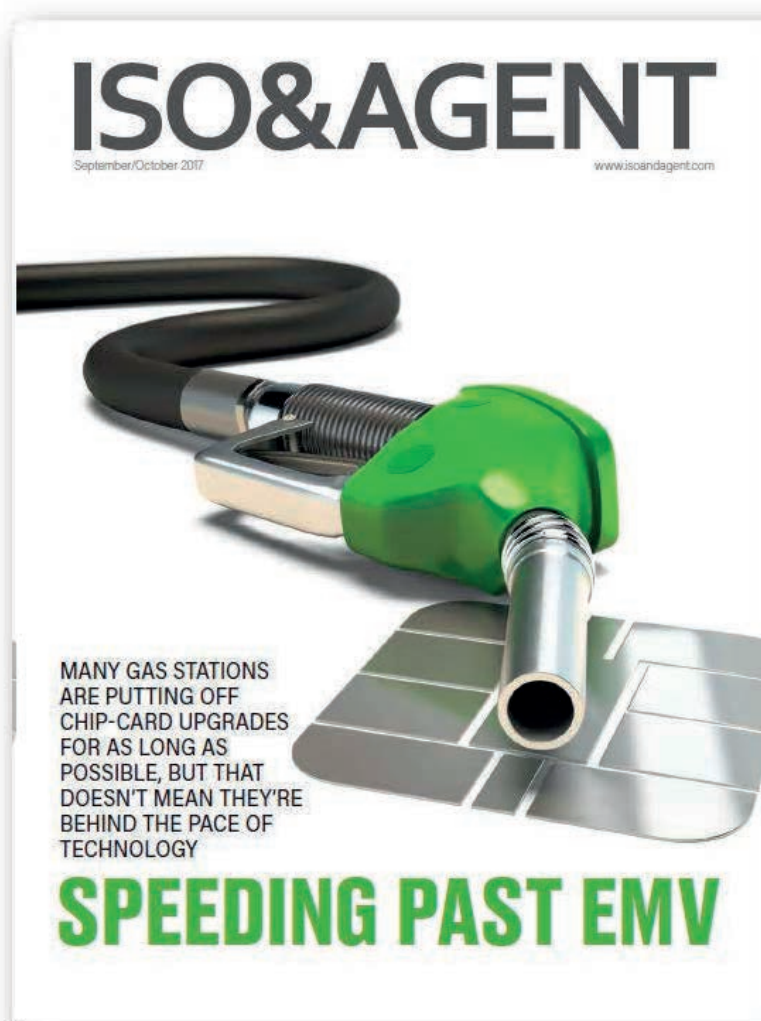
Digital commerce will call for more standards-based certification as consumer devices are used more and more to facilitate both payments and authentication, said Julie Conroy, research director and fraud expert with Boston-based Aite Group.

"Right now, there is quite a bit of chaos on the edges of payments, with so many different types of devices, from smartphones to Alexa, being used to initiate transactions and authentication," Conroy said. "There is a bit of a gap from a standards and certification perspective, and I could see a role for an entity like UL there."

UL has been down the EMV road before, partnering with payment processors at the time of the U.S. chip card migration in 2015 to speed up the testing and certification process for merchants to accept the new technology at the point of sale. **ISO**

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