

Welcome to the **September** edition of ACT News – Driving Insights. This complimentary service is provided by ACT Canada. Please feel free to forward this to your colleagues.

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ACT Canada Partners

INGENICO - Payment Acceptance Solution Provider

Ingenico Group is the global leader in seamless payment, providing smart, trusted and secure payment solutions to empower commerce across all channels, in-store, online and mobile. With the world's largest payment acceptance network, we deliver secure solutions with a local, national and international scope in 125 countries. For over 30 years, we have been the trusted world-class partner for financial institutions and for retailers, ranging in size from small merchants to several of the world's best known global brands. Our smart terminal and mobile solutions enable merchants to simplify payment and deliver their brand promise.

INTERAC - Payment Network Partner

Interac Association is a recognized world leader in debit card services. Interac Association is responsible for the development and operations of the Interac network, a national payment network that allows Canadians to access their money through Interac Cash at 60,000 Automated Banking Machines and Interac Debit at 766,000 point-of-sale terminals across Canada. Interac Flash, a secure contactless enhancement of Interac Debit allows Canadians to pay for items instantly with their Interac chip debit card at a reader that supports Interac Flash.

New and Renewing Members

Principal Member Ingenico Group Ltd. ~ member since 1990

General Member

Flexiti Financial ~ member since 2014 Home Hardware Stores Ltd. ~ member since 2013

Career Opportunities

Looking For Good People?

There is a lot of movement in the market, so if you are looking for new employees, we are always aware of some great people. Please contact ACT Canada for more details - postings@actcda.com



Calendar of Events

ACT Event: Conversations in

Cannabis Toronto, ON, Canada October 2nd, 2018 https://actcdaca.memberzone.com/e ventregistration/register/2 ACT Canada Members attend for free

Money2020

Las Vegas, NV, USA October 21st -24th, 2018 https://us.money2020.com ACT Canada Members receive a US\$250 discount on top of existing discounts

Customer Expo

Nashville, TN, USA October 24th – 26th, 2018 https://customerexpo.loyalty360.org/ *ACT Canada Members receive a* 20% discount

Canadian Payments Innovation Forum Toronto, ON, Canada November 22nd https://www.canadianpaymentsforum .com/ ACT Canada Members receive a 20% discount

AI World Forum and 4th Annual Awards

Toronto, ON, Canada November 26th – 27th, 2018 http://www.worldforum.ai/ *ACT Canada Members receive a* 20% discount for the Forum

TRUSTECH

Cannes, France November 27th – 29th, 2018 https://file.splio3.fr/72l/kb/biGq/#xtor= AD-613 *ACT Canada Members receive a* €550 discount

3rd Internet of Things India Expo

Pragati Maidan, New Delhi, India January 29th – 31st, 2019 http://www.iotindiaexpo.com/

Articles

1. PAYMENTS INDUSTRY DELIVERS NEXT MILESTONE ON MODERNIZATION JOURNEY: FASTER, MORE CONVENIENT AND FLEXIBLE BATCH PAYMENTS ACROSS ALL TIME ZONES Source: Payments Canada (09/26)

Payments Canada, the country's financial market infrastructure for payments, today announced the go live of a new third daily exchange period for Canada, a collaborative effort with key industry stakeholders, including Canadian financial institutions. This enhancement to Automated Funds Transfer - also known as Electronic Funds Transfer or batch payments - combined with upcoming



changes for faster funds availability supports Canadian businesses being able to move funds faster, make time-sensitive same-day payments, and increases convenience and choice, particularly for companies in Western Canada. The third daily interbank exchange will take place at 9 p.m. ET, extending the time available for payments processing. The new exchange window delivers more flexible service across all time zones, including better working day access for Western Canada. Building on this improvement, Payments Canada is also on track to go live in the coming weeks with two-hour funds availability, which will support quicker access to funds for more immediate payment scenarios, such as emergency payroll.

"Every year thousands of Canadians rely on batch payments for payroll and bill payments. In 2017, batch payments accounted for more than 1.7 billion payments worth about \$3 trillion," said Gerry Gaetz, President & CEO of Payments Canada. "The improvements to batch payments, which are the result of extensive commitment and investment from our member financial institutions, add to the overall reliability and effectiveness of this payment choice, and better accommodate the working day on the West Coast." Payments Canada's modernization journey started with a vision exercise which involved a series of consultations with more than 100 organizations across the country. Through this effort, Payments Canada identified batch payments as a staple and necessary part of Canada's overall payments ecosystem, with consensus that a few enhancements could deliver greater value to the marketplace. "AdvantageBC was pleased to have the opportunity to share the voice of western-based businesses during Payments Canada's vision exercise," said Colin Hansen, President and Chief Executive Officer, AdvantageBC. "Seeing some of our consultation input now a reality is an exciting milestone for Canada as the result is a more favourable environment for Canadian financial service companies to compete in a changing global marketplace, which is a win for Canada's overall economic future."

The introduction of a third exchange period and two-hour funds availability, the latter to be effective in October 2018, are outcomes of Canada's payments modernization initiative. Businesses should check with their financial institution for processing deadlines in order to meet the third daily interbank exchange period.

Payments Canada is a member of ACT Canada; please visit www.payments.ca.

2. GEMALTO AND R3 PILOT BLOCKCHAIN TECHNOLOGY TO PUT USERS IN CONTROL OF THEIR DIGITAL ID Source: Business Wire (09/18)

Who are you, and can you prove it? The new Gemalto Trust ID Network enables users to give digital service providers fully verified and secured answers to these simple yet critical questions. By creating and managing their own 'Self-Sovereign' Digital ID, users can enroll with a host of different digital banking, eCommerce and eGovernment services, without having to go through repeated due diligence processes for each of them. This innovative distributed approach to



Digital ID management enables service providers to leverage ubiquitous identities certified by trusted parties whilst putting users firmly in control of their data.

Verified Digital IDs managed via a convenient mobile app

Blockchain technology is ideal for supporting digital transactions that are based on trusted and verified identities, without exposing sensitive data to the threat of hacking and cyber-attack. With Trust ID Network, user control is facilitated via the ID Wallet, a convenient and secure mobile app. Here users can add personal data to their digital identity, have it certified, and give consent to share it with chosen service providers. Only 'attestations' issued by trusted parties are stored on the blockchain, keeping personal data under sole control of users.

Banks can lead the creation of new Digital ID ecosystems

To comply with new regulations^{*}, financial institutions must implement robust KYC (Know Your Customer) procedures, rigorous data privacy and protection as well as strong customer authentication. They are therefore ideally positioned to lead the self-sovereign Digital ID revolution. Other service providers that rely on verified customer identities, such as public services, mobile operators and airlines, can also reap significant benefits, including the opportunity to share ID management costs. As further stakeholders join a self-sovereign ID ecosystem, richer identities are built, supporting an even wider range of use cases.

Gemalto builds on the unique features of R3's Corda blockchain platform

Gemalto deploys its Trust ID Network application and data protection solutions on the latest version of the Corda platform, the world's foremost enterprise blockchain solution built by R3. It provides full privacy, security and immutability along with a streamlined integration for service providers and the ability to support mission critical identity services. R3 already works with over 200 financial institutions and other partners worldwide. A wide range of stakeholders are being invited to participate in one of several Trust ID Network pilots that will launch later this year. "Empowering customers to manage and control their own digital identity based on blockchain technology is nothing short of revolutionary and we're very pleased to be collaborating with Gemalto on the Trust ID Network," said David E. Rutter, CEO of R3. "The Corda platform's unique privacy features offer the ideal basis for a secure, easy-to-deploy decentralized ID management platform." "Trust ID Network solves the profound weaknesses of traditional, 'siloed' identity frameworks: the clumsy user experience, rising costs and difficulties in complying with stricter regulations. It's the perfect illustration of Gemalto's ability to combine proven Digital Identity solutions and new technologies such as the blockchain," said Bertrand Knopf, EVP Banking & Payment for Gemalto. "Financial institutions are best-placed to lead this self-sovereign identity revolution, but it will prove similarly attractive to a wide array of other service providers."



*In the EU, relevant regulations include AMLD 4 & 5, the GDPR (General Data Protection Regulation) and PSD2 (second Payment Services Directive)

Gemalto is a member of ACT Canada; please visit www.gemalto.com.

3. THE PCI COUNCIL WILL TAKE FURTHER COMMENTS ON AN UPDATED POINT-TO-POINT ENCRYPTION STANDARD Source: Digital Transactions (09/24)

When security managers and executives gather this week for the PCI Security Standards Council's annual North America Community Meeting, one of the topics sure to be on their minds is point-to-point encryption (P2PE) of payment card data. The Council reported Friday that it plans to issue a new version of its P2PE standard late next year or in early 2020. The Wakefield, Mass.-based PCI Council, which administers the main Payment Card Industry data-security standard and its sister standards covering payment-processing software and hardware, issued a request for comment last year on revising the P2PE standard, and had planned on issuing an update this year. But some of the comments prompted the Council to postpone the revision. "We really expected the comments would be to minimize any significant changes from the previous release," PCI Council chief technology officer Troy Leach said in a blog post. "That was what we were hearing from the industry, and somewhat confirmed by the feedback results. However, we received a few suggested changes that were minor in the approach to the security requirements of the standard itself, but significant in some of the program changes recommended and organization of requirements within the standard."

Now the Council is planning on another request-for-comment period for security-services vendors, payment processors, merchants, and other so-called PCI stakeholders. The new goal is to publish version 3.0 of the P2PE standard in 2019's fourth quarter or 2020's first quarter, according to Leach. "Changes will focus on modernizing, simplifying, and adding flexibility to the P2PE program," he said. In the meantime, version 2.0 of the P2PE standard remains in effect. Point-to-point encryption is aimed at masking payment card data that otherwise might be exposed to hackers during vulnerable times in the transaction process. The Council wants merchants to use P2PE products validated as meeting its standards to ensure the strongest data protection. P2PE became a huge topic among merchants and merchant acquirers after the massive data breach at processor Heartland Payment Systems Inc. in 2008, which embarked upon a big encryption initiative afterward.



4. A FINANCIAL-INDUSTRY STANDARDS BODY RELEASES RULES AIMED AT TIGHTENING MOBILE SECURITY Source: Digital Transactions (09/11)

Mobile payments are booming in places like China and India, but in the United States, not so much. Year after year, one reason that keeps popping up in surveys is concerns about security, and a major standards body announced a measure aimed squarely at those fears. The Accredited Standards Committee X9 Inc., an Annapolis, Md.-based organization that develops open standards for the financial-services industry, said its new standard applies to phone manufacturers, app developers, and financial-services providers and addresses a range of security loopholes. These include "customer isolation, the use of merchantunattended terminals or kiosks, non-financial platforms that may not be trustworthy, and cellular, wireless, and other connections that persist after an action has concluded, as well as the risks inherent in card-not-present transactions," the organization says in a press release. The worries don't stop there. "[A] mobile network infrastructure's security may not reliably protect data in transmission," the release continues. As a result, it says, "the continuing growth of the smart-phone market increases the urgency of enabling better security for the mobile device population."

The standard known as ASC X9.112-3 "Wireless Management and Security—Part 3: Mobile," addresses a wide range of mobile payments, embracing such specific functions as person-to-person payments, payments to businesses and interactions with terminals, and mobile banking. It also addresses technologies such as browsers, apps, and a variety of mobile channels, from near-field communication to text and video. "Developers, implementers, service providers, and assessors for the financial industry will welcome the guidance contained in the X9.112-3 requirements and recommendations, and end users will enjoy higher levels of security throughout every phase of a transaction, from initiation to completion," said Steve Stevens, executive director of ASC X9, in a statement. Security fears surrounding mobile payments have consistently appeared in industry reports and surveys over the years as a factor dampening mobile-payment usage. Some 51% of banks and credit unions cited security concerns as a "high" barrier to consumer adoption, and an additional 35% rated these fears as a "medium" obstacle, in a Federal Reserve study released in January. Two top concerns in the study were careless behavior by consumers and the risk of cardnot-present fraud. The Fed survey collected responses from 706 financial institutions across seven Fed districts, of which 450 responded to a question about mobile-payment adoption barriers.

But mobile payments are likely to grow, even if slowly in the early going, and expert observers say the new standard will likely play an important role behind the scenes. "The reality is that this announcement won't really register with the consumer population in and of itself, but hopefully the impact will make itself felt over time," says Julie Conroy, research director at Boston-based research firm Aite Group, in an email message. "This is critically important, since mobile is not only



seeing increased use as a transactional channel, but often the mobile device itself is increasingly used to authenticate customers across all channels of interaction." This latest ASC X9 standard follows two others that address so-called wireless communications, including one with requirements for radio-frequency technologies and one aimed at ATMs and point-of-sale devices. ASC X9 is accredited by the American National Standards Institute and embraces more than 100 member companies. It has issued approximately 100 U.S. standards and 58 for international use.

5. INGENICO GROUP AND TOSHIBA PUT SHOPPERS' EXPERIENCE FIRST FOR RETAILERS WITH PAYMENT ACCEPTANCE FLEXIBILITY *Source: Globe Newswire (09/06)*

Ingenico Group announced a partnership with Toshiba Global Commerce Solutions, the market share leader in retail store technology, that will enable grocers and other retailers to better serve their customers by enhancing the customer experience at the point of sale. With growing pressure from new entrants and existing competitors, it's imperative for businesses to be able to adapt to changing consumer expectations, especially at the checkout. Through the partnership in the United States, Toshiba Global Commerce Solutions will offer Ingenico Group's industry-leading payment acceptance technology to both existing and prospective customers, as well as offer services on the Telium TETRA platform that give retailers the flexibility to choose how and where they're able to checkout and interact with customers. The partnership also provides access to Ingenico Group's full portfolio of solutions, including mobile and fixed payment acceptance options, estate management tools, security solutions, services and support.

"Not only do we want to offer our customers best-in-class choices when it comes to payment solutions, we want them to know we're committed to pushing the boundaries of innovation as consumer preference and technology evolve," said Steve Markham, senior vice president of strategy and portfolio at Toshiba Global Commerce Solutions. "Partnering with a global payment and mobile solutions leader like Ingenico Group allows us to achieve this goal, developing technologies that enable grocers and retailers of all sizes to differentiate themselves from their competitors and drive loyalty with their customers." "Our partnership is driven by both Toshiba and Ingenico Group's commitment to helping merchants reach the full potential of their business by providing them with the tools needed to provide an exceptional customer experience," said Jennifer Miles, executive vice president of North America for Ingenico Group. "Working with an industry leader like Toshiba allows us to tailor our seamless payment terminals to meet the unique demands of grocery and retail, enabling businesses to offer an improved customer experience that, ultimately, helps achieve business goals." One of the key drivers in this partnership for both Toshiba Global Commerce Solutions and Ingenico Group was the potential to develop a model in which solutions are supported and maintained by Toshiba Global Commerce Solutions throughout the entire



customer lifecycle. Ingenico Group is working to collaborate with Toshiba, which is uniquely positioned as both a software provider and a systems integrator, to bring this model to life, facilitating the sale, support and updating of Ingenico Group's smart terminals – a win for customers.

Specifically related to payment solutions, the partnership allows support of Toshiba Global Commerce Solutions' SurePOS[™] ACE and TCx[™] Pay solutions with Ingenico Group's Telium TETRA range of payment solutions, beginning with the sleek and efficient Lane/7000 and Lane/8000 smart terminals to support inlane grocery, pharmacy and retail markets. Benefits the partnership offers to retailers include:

- Certification to the latest industry security standards, including PCI PTS v5.x
- Ability to accept new and emerging forms of payment including magstripe, EMV chip & pin, EMV chip & sign and NFC/contactless, including Apple Pay and Google Pay
- Certification for eWIC (Women, Infants and Children), enabling payments to be made through electronic benefits transfer (EBT) smart cards
- Toshiba's world-class consulting, solution integration and service delivery expertise

Ingenico Group is a member of ACT Canada; please visit www.ingenico.com.

6. SELF-SERVICE PAYMENTS SIMPLER THAN EVER THANKS TO ACCEO AND DESJARDINS'S CONTACTLESS SOLUTION Source: ACCEO Solutions (09/14)

ACCEO Solutions Inc. and Desjardins Group are the first to bring unattended contactless payment to Canada via certification of Ingenico's iSeries of smart terminals namely the iUC180B.

Faster and secured payment option introduced

This new solution by ACCEO and Desjardins ushers in a new era in payment processing. Perfect for self-service markets (such as parking, supermarkets, restaurants, and vending machines), the Ingenico payment platform is designed to cut complexity in payment and security, and allow merchants to process more transactions in less time. Consumers will benefit from unprecedented ease of use, with no PIN required and no waiting in long checkout lines. ACCEO Tender Retail technology, together with Desjardins's unattended contactless payment, revolutionizes point-of-sale transactions. The solution supports contactless EMV payment and protects cardholder data with secured, end-to-end encryption. Desjardins Group is the first to have certified the iUC180B with ACCEO Tender Retail in Canada, and has also certified other ACCEO Tender Retail powered smart terminals part of the iSelf series including the iUN250 (comprised of 3 components: iUP250, iUR250 and iUC150B).



ACCEO Solutions Inc., ACCEO Tender Retail and Desjardins Group are members of ACT Canada; please visit www.acceo.com and www.desjardins.com/ca.

7. IDEMIA HAS BEEN SELECTED TO PROVIDE ONTARIO LOTTERY AND GAMING CORPORATION (OLG) WITH NEXT GENERATION LOTTERY TERMINALS IN CANADA Source: IDEMIA (09/28)

With more than 25 years of experience in Point of Sale and Lottery / Betting technologies, IDEMIA has already deployed over 280,000 terminals worldwide. Thanks to its industrial leadership and its capacity to innovate, IDEMIA has been able to design the ELITE-Terminals. This next generation solution enables lottery organizations to benefit from more than just a lottery terminal and will allow OLG to improve the retail experience for both customers and retailers. The ELITE-Terminal offers speed and ease for processing documents (e.g. play slips, receipts, instant tickets, etc.) for retailers; as well as new opportunities for designing innovative play slips for special events. For this long-term specific project, IDEMIA will work with OLG over the next 18 to 24 months to rollout 10 700 new terminals and associated ticket checkers in retail locations. IDEMIA is also collaborating with Rogers Communication Canada Inc. as the Telecommunications Network Services Provider, with NCR Canada Corp. as the Lottery Terminal Support and Maintenance Services Provider and with FDJ Gaming Solutions (a subsidiary of la Française des Jeux), IDEMIA's long-term partner, for the delivery of the Lottery Terminal middleware and associated remote management tools.

"IDEMIA is proud to work once again with Ontario Lottery and Gaming Corporation and provide them with the next generation of camera-based Lottery Terminals. IDEMIA has a worldwide experience and the ability to implement, integrate, and maintain leading edge solutions in the lottery and gaming industry. To date, more than 60,000 units of ELITE-Terminals have been sold worldwide, showing strong success for this ground-breaking technology." Philippe Larcher, Deputy General Manager for Citizen Identity & Public Security activities at IDEMIA. "Replacing and updating Lottery terminals will help improve the way OLG connects with customers in a responsible way. It's part of OLG's plan to ensure our technology is responsive to changing market expectations. New terminals will allow OLG to add more products and provide a better retail experience for customers, while delivering enhanced features for retailers." Greg McKenzie, OLG's Chief Operating Officer

IDEMIA and Rogers are members of ACT Canada; please visit www.idemia.com and www.rogers.com



8. MASTERCARD AND DREAM PAYMENTS LAUNCH AN API TO POWER DIGITAL PAYMENTS FOR THE INSURANCE INDUSTRY *Source: Travel Daily News (09/14)*

Dream Payments, a digital platform for banks and insurers, announced that it has released a simpler way for insurers to optimize their claims systems and offer digital payments to consumers. With the Dream Claims Payment API, the first of its kind exclusively for the insurance industry, insurance companies can now more easily connect to the Dream Payments Hub and MasterCard Send, which is a global push payments platform that facilitates the delivery of funds in near realtime to virtually all domestic debit card accounts in the United States. It is estimated that each year, insurers pay out over \$1 trillion of insurance claims through slow and inconvenient checks. With just a few simple lines of code, insurers can streamline the process and add immediate, digital payments to their claims systems, creating a better consumer experience. "At MasterCard, we understand that developing products and services that companies can easily adopt will ultimately best serve consumers," said Zahir Khoja, SVP, Global Acceptance at MasterCard. "Through our partnership with Dream Payments, we're reimagining how insurers can attract and retain consumers by optimizing systems and getting claim payments to people when they need them most, in near-real-time and digitally."

Travel Insured International, a U.S. based travel insurer will be the first insurer in the U.S. to deploy real-time disbursements to their customer base using the Dream Claims Payments API. "Our focus is to consistently take our customer experience journey to the next level, and continuously work to provide innovative solutions to anticipate and fulfil our customers' ever growing needs. In the age of instant gratification, partnering with Dream Payments is allowing us to provide real time satisfaction, while building trust and loyalty with our customers." commented Jon Gehris, CEO of Travel Insured. "Our API allows insurers to rapidly integrate digital claims payments into their claims systems and processes to deliver an exceptional experience for both end customers and internal claims personnel," says Long Van, CTO of Dream Payments. "Through one API and the Dream Payments Hub, insurers of all sizes can now benefit from the speed and efficiency of digital claims payments and eliminate the friction associated with printing, sorting, mailing and tracking of checks." Northbridge Financial, a Fairfax company was the first insurance company to begin transformation of their claims payment process using the Dream Payments Hub to pay claimants digitally. "We know that waiting for and depositing cheques are key pain points for our customers and we're excited to be able to offer them better and faster options to get them the funds they need as quickly as possible", said George Halkiotis, EVP, Claims, Northbridge Financial. "The Dream platform also gives us multiple options to transfer funds based on our customers' preferences and the fully integrated experience will create greater efficiency with our processes internally, and ultimately an easier experience for our team."



The Dream Payments Hub and its Claims Payment API are built on the IBM Cloud, which provides a reliable, secure, and scalable platform for the world's leading insurance providers. "IBM Cloud is tuned for AI and data demands and designed to meet the evolving needs of businesses," said Frank Attaie, VP, IBM Cloud, Canada. "By leveraging IBM Cloud for VMware Solutions, Dream Payments will be able to better serve leading insurance companies around the globe."

Dream Payments and MasterCard are members of ACT Canada; please visit www.dreampayments.ca and www.mastercard.ca.

9. ANT FINANCIAL LAUNCHES ANT FINANCIAL TECHNOLOGY BRAND WITH FULL SUITE OF TECHNOLOGY PRODUCTS AND SERVICES TO SUPPORT GROWTH OF FINANCIAL INSTITUTIONS *Source: Business Wire (09/20)*

Ant Financial Services Group ("Ant Financial" or "the Company") today announced that the Company would open up a full suite of technology products and services under a new brand, Ant Financial Technology, to support the growth of financial institutions by improving user experience and lowering costs. Announcing the launch of the Ant Financial Technology brand at the 2018 Ant Technology Exploration Conference (ATEC) in Hangzhou, Xi HU, Deputy CTO of Ant Financial said, "Since our establishment in 2014, Ant Financial has focused on developing cutting edge technologies to enable inclusive finance. We are pleased that our technology products and services have already been used to improve efficiency and lower costs at approximately 200 financial institutions, including more than 100 banks, over 60 insurance companies, and more than 40 asset management firms and security brokers. Going forward, we will offer a full suite of technology products and services to power the growth of our financial institution partners and help them extend their services to more individuals."

Under the new brand, Ant Financial's technology products and services consist of five product portfolios, namely large-scale financial transaction technologies, financial security technologies, financial intelligence technologies, next-generation interaction technologies and blockchain applications. These technologies have withstood the tests of some of the world's most extreme use cases. For example, in the large-scale financial transaction portfolio, Alipay, Ant Financial's mobile payment and lifestyle platform, was comfortably able to process a record breaking 256,000 payment transactions per second at the peak of the 2017 Singles' Day Shopping Festival. Ant Financial's technology solutions for financial institutions enable the delivery of services - from payments to wealth management – efficiently and at scale, and the Company's institutional partners have realized concrete gains from implementing these solutions. For example, by implementing two of Ant Financial's large-scale financial transaction technologies - SOFAStack (Scalable Open Financial Architecture), Ant's financial grade distributed framework, and OceanBase, its financial distributed database - PICC Health Insurance increased its policy processing speed by a few thousand times,



reduced daily reporting processing time from 4 hours to 6 minutes and shortened new product launch time by 80%. In addition, Bank of Nanjing also leveraged SOFAStack and OceanBase to expand its loan underwriting capacity to comfortably process one million loans per day, with an average processing speed of less than one second.

Wenkai ZHOU, Vice President, Bank of Nanjing commented, "The rapid development of financial technology has had a profound impact on the traditional financial industry. To overcome some of the growth challenges of our business, we partnered with Ant Financial to build a distributed digital finance platform. This significantly enhanced our ability to underwrite loans and led us to expand our partnership in a number of other areas." Financial institutions have increasingly recognized the ability of Ant Financial's technology products and services to streamline operations. In June 2018, Ant Financial announced that it would share a full suite of AI capabilities with asset management companies to increase operational efficiency and reduce costs. In May 2018, banks including Huaxia Bank, China Everbright Bank, Shanghai Pudong Development Bank, China CITIC Bank, and Bank of Tianjin signed strategic cooperation agreements with Ant Financial to support the digital transformation of these banks.

10. AMAZON'S 20K DEVICES, AND THE TIGHTENING RACE FOR AI DOMINANCE

Source: PYMNTS.com (09/05)

When 2018 rang in, Alexa was compatible with just over 4,000 devices. A little bit past the halfway mark in 2018, Alexa's device count has jumped five-fold, as over 20,000 devices are now integrated with Amazon's Al voice assistant. In the last year alone, Alexa has apparently sung "Happy Birthday" a few million times, and has told over 100 million jokes – at least if Amazon VP Daniel Rausch is to be believed. He dropped the news about Alexa's massive device expansion – and the factoid about jokes – at Berlin's IFA tech show last weekend. It was one of many new data points on offer over the weekend, as Rausch highlighted where Alexa is growing, who is profiting and where it's headed next. The news hits the wires as Amazon's competitors have all been ramping up their game, hoping to shake some of Alexa's emerging dominance in the field.

More Is More

As Amazon's VP of smart home products, Rausch had a lot of interesting data tidbits to share. The number of brands using Alexa has gone from 1,200 at the beginning of the year to about 3,500 as of today. He also noted that there are now 50,000 Alexa skills to choose from, built by "hundreds of thousands of developers" in over 180 nations. And, he noted, Alexa may tell a lot of jokes, but the potential for profitability that comes built into Amazon's voice-activated AI is far from a laughing matter. Adding voice capabilities, for example, has helped some firms push big bumps in sales. The developers, according to Rausch, are often



well-compensated for their efforts in making Alexa increasingly sticky with an everwidening array of apps, with some making thousands of dollars a month. One presumably exceptional case, referenced by Rausch, involved a college student bringing in \$10,000 per month on the back of his wildly popular word of the day skill. Moreover, he noted, as Alexa is becoming more widely embedded in devices of all kinds, voice is beginning to really emerge as a superior tool for smart home management.

"It turned out your smartphone is actually a pretty terrible remote control for your house. You don't want to fish around in your pocket, open applications and unlock your phone to control the device that's right in front of you," Rausch said. "Voice has truly unlocked the smart home. That's because it's actually simpler." And, of course, why stop at the home? Amazon is working overtime to expand Alexa into cars, hotels and office spaces, where consumers could use a digital assistant. Insofar as Amazon is clearly and commandingly leading the pack thus far – so far, so good. But, as Rausch noted, it is still very early days of building voice ecosystems, both in terms of capability and market penetration. He noted that Amazon has "barely scratched the surface" of what it can do with voice. And while Amazon is working to dig deeper, it is far from well along in that effort. Apple, Samsung and Google are all avidly trying to crack the voice market (some more successfully than others), and their efforts have been logging progress of late.

Forward Motion

The least mentioned – and often forgotten – Samsung offering of Bixby, for example, has recently announced that it will be courting more developer interests in building voice apps for its digital assistant. Starting later this year, Samsung will allow third-party developers to build apps for Bixby. DJ Koh, CEO of Samsung's mobile unit, told CNBC that the company will release a software developer kit (SDK), as well as an application programming interface (API). The SDK will allow developers to make apps with Bixby, while the API will allow Bixby to integrate with other apps. Samsung says it will make those tools available for developers after its November conference; they believe that by opening up their site to the creative abilities of the developer community, their smaller AI platform could get the boost it needs to make a mark in this race. "Opening the ecosystem in November, then this baby (Bixby) will grow. So I do not want to see just six months' or nine months' performance, no. Because this is like a long journey; it's just starting, because with the new Bixby embedded in the Note 9, a new baby was born," Koh noted, referring to the series of upgrades for Bixby, concurrent with the announcement of the Note 9. Those upgrades included better natural language processing skills, more ease of working within a single conversation thread and an increase in inter-phone navigation tools.

And Samsung isn't alone in evolving its assistant. The oft-critiqued team at Apple seems to have gotten a bit more serious about helping Siri get smarter, and perhaps become a better conversationalist. As of last week, a new job listing from



Apple appeared, saying it is seeking a writer and editor who can help evolve Siri from a less than totally lauded digital assistant into a "distinct, recognizable character." "In this role, you will lead a team of writers and editors to deliver polished and consistent dialog for Siri," Apple says in the listing. "You will collaborate with international writers, designers, engineering and Apple marketing staff to help Siri be more effective and delightful." Apple says the ideal candidate excels at the craft of writing and loves language and wordplay. This latest listing comes as part of a bit of a hiring spree Apple has been on in the last 12 months. Over 142 Siri-related job listings were open in March of this year. As of August 2018, that number was 194.

Meanwhile, over at Google, the Google Assistant (Alexa's nearest and most evenly matched competitor) has upgraded its language skills, and is now said to be bilingual. As of now, a user can speak to the Google Assistant in English, German, French, Spanish, Italian or Japanese, with more languages promised to be coming soon. Once a user picks which two languages Google is meant to understand, they can switch back and forth without giving any other commands. It is the first AI voice assistant to have this capability. Will bilingual capability be the killer use case that allows Google to elbow past Amazon? We ... kind of doubt it. But as the race gets further along, the stakes are getting higher, and the skill counts look set to rise. The weather may be cooling off for the year – but the voice AI ecosystem seems to be just starting its 2018 heat wave.

11. RIPPLE EXPANDS NETWORK WORLDWIDE FOR EASIER TRANSFERS *Source: Mobile Payments Today (09/20)*

Ripple's network RippleNet is now live in over 40 countries across six continents, according to a press release. The company hit the milestone Wednesday as new payment corridors opened up in North America, Asia, Africa, Europe and South America. Ripple said the new open corridors create more connection points for RippleNet members worldwide. This provides customers with more flexibility when sending money to countries where payments are challenging, according to the release. Today's new corridors are in countries where there are large remittance and small business payment needs:

- United Kingdom to Malaysia, Vietnam, Indonesia, Sri Lanka, Bangladesh (via RationalFX, Xendpay and InstaReM)
- Canada to Nigeria (via Remitr and FlutterWave)
- Brazil to Spain, Italy, Germany, France and Portugal (via Beetech and InstaReM).

"By opening up new corridors across North America, Europe, Africa and Asia, we're expanding the global footprint of individuals who can benefit from faster and cheaper cross-border payments," said Marcus Treacher, senior vice president of customer success at Ripple, in the release. "Whether it's global banks or technology-forward payments providers like RationalFX, Remitr and Beetech, financial institutions are focused on building connections between themselves so



that they can better leverage Ripple's blockchain technology to help people and businesses in need."

12. GLOBAL PAYMENTS AND INGENICO GROUP OFFER SMBS TECHNOLOGY TO ENHANCE PAYMENT EXPERIENCE Source: Global Payments (09/17)

Global Payments Inc announced that Heartland, its U.S. payments and payroll business, has partnered with Ingenico Group to deliver an advanced terminal to enhance the consumer payment experience. This offering joins Heartland's technology and software with Ingenico Group's Desk/3500 terminal, the first of its Telium Tetra solutions newly certified in the U.S., and is designed specifically to meet the needs of SMB customers. The solution offers a seamless and enhanced payment experience for customers and is PCI PTS 4.x certified, exceeding the industry standard for transaction devices from the Payment Card Industry Security Standards Council. The device provides customers with an intuitive applications menu and compact design, making it easy to handle while providing a small footprint. A first for our US business, Heartland has developed the entirety of the software solutions in the smart terminal, including APIs and endto-end encryption support to ensure that customer transaction data is always protected. Heartland stands behind the card data encryption technology on the Desk/3500 with the Heartland SecureTM Breach Warranty. Tony Capucille, President, Global Payments US. Payments and Payroll business said, "We know that improving the customer experience at the point of sale is an important objective for SMBs. As demonstrated by being the first to market with Desk/3500, Heartland has the best solutions available to SMBs to create lasting customer experiences."

Global Payments Inc. and Ingenico Group are members of ACT Canada; please visit www.globalpaymentsinc.com and www.ingenico.com.

13. ISO 20022 AND GLOBAL PAYMENTS Source: Payments Journal (09/27)

The payments industry is undergoing a quiet transformation. New market infrastructures, such as instant payment systems, are appearing in every major market. Meanwhile, existing systems – from domestic ACH to high-value – are being upgraded to offer easier access, better services and lower transaction costs. Underpinning these initiatives is a common standard – ISO 20022 – an open international standard that defines key business processes and data, and is compatible with existing and emerging technologies. The main benefit of a common standard is clear: end-to-end consistency of data and processes leading to cheaper, faster automation of transaction and compliance processing. It will also, not to forget, lead to improved customer service.



Unlike many of the legacy formats it replaces, ISO 20022 provides detailed, well-defined structures for important information – including all the parties involved in the payment, rich remittance information and payment purpose details. If 'data is the new oil', ISO 20022 data is the refined stuff, ready to power big-data applications like business intelligence and customer insight. The payments market in the UK is one of the leaders in the move to ISO 20022. Ambitious plans foresee a movement of the country's key domestic schemes, Faster Payments and BACS, and its RTGS system (currently CHAPS) to a common ISO 20022 format. The UK's Open Banking initiative also specifies ISO 20022-derived API specifications to ensure that payments data, whether exchanged via message or API, is well and consistently defined along the entire value chain.

A new body – the New Payment Services Operator, NPSO – has been created to manage the transition of the domestic schemes, working closely with the Bank of England, which is responsible for the new RTGS implementation. The Bank's most recent consultation identified several key benefits of ISO 20022 for the UK:

- Increasing resilience and reducing risk. In particular, moving to a common standard makes it possible to switch payments between different schemes for example, from RTGS to Faster Payments, should any disruption to one of the services occur.
- Improving UK productivity and outcomes for users of payments. Convergence on an aligned standard reduces barriers to entry for Payment Service Providers (PSPs), encouraging innovation and the development of value-add services for end-users.
- Enabling organisations, households and policymakers to take more informed and effective decisions. ISO 20022's richer data will help ensure that users of payment systems receive better services; it will support greater competition in the provision of value-added services across PSPs; and is a resource to ensure policymaking is effective and timely.

Adoption makes even more sense when an international dimension is considered. In the eurozone, the Target high-value payment system will switch to ISO 20022 in November 2021, and in the US, the Federal Reserve and The Clearing House plan to roll out ISO 20022 for high-value transactions starting in Q1, 2022. We estimate that, by 2023, around 80% of the volume and 90% of the value of high-value payments worldwide will use the standard. For global banks that participate directly in multiple high-value payments systems this is a great opportunity to consolidate and re-engineer payment services and applications around a single common data model. The only missing piece of the puzzle is cross-border payment messages, where the SWIFT 'MT' standard is currently widely used. ISO 20022 for cross-border would enable payment transactions that originate or terminate in a high-value system to benefit from rich, consistent data end-to-end.



Following a detailed industry consultation, SWIFT now plans to facilitate a migration of cross-border payments to ISO 20022 to coincide with adoption by the high-value systems. This is a complicated proposition, because the SWIFT community encompasses 10,000 banks of all sizes and types – and it will be critical to ensure all remain interoperable while migration is underway. It is envisaged that a centralised translation service will help to guarantee this – along with other measures both technical and organisational. A common standard model for payments worldwide is a big prize, with major long-term benefits for the industry and its customers. While there is much more work left to do, that prize is finally in sight.

14. FIDO ALLIANCE DEBUTS NEW CERTIFICATION PROCESS FOR BIOMETRICS

Source: Mobile Payments Today (09/07)

The FIDO Alliance recently announced its Biometric Component Certification Program, the first such program for the industry at large, according to a press release. The program utilizes accredited independent labs to certify that biometric subcomponents meet globally recognized performance standards for biometric recognition performance and Presentation Attack Detection and are fit for commercial use in various use cases. The alliance said that while biometric user verification has become a popular way to replace passwords and PINs, there has been a lack of an industry-defined programs to validate performance claims has led to concerns over variances in the accuracy and reliability of these products. "With biometrics being a popular option for mobile and web applications implementing FIDO Authentication, there is a growing need for those service providers to appropriately assess the risk of fraud from lost or stolen devices." Brett McDowell, executive director of the Alliance, said in the press release. "While border control and law enforcement markets have mature assessment programs for their biometric systems, we were surprised that no such program existed for this rapidly growing consumer market."

15. IDEMIA SIGNS AGREEMENT WITH DISCOVER TO ACCELERATE MOBILE AND DIGITAL PAYMENT SERVICES ADOPTION *Source: IDEMIA (09/21)*

Under the program, IDEMIA (formerly known as OT-Morpho) is authorized by Discover Global Network to provide digital enablement services for any issuer or third party mobile wallet solution that is integrated with the Discover EMV® compliant contactless specification known as the D-Payment Application Specification (D-PAS). IDEMIA will securely tokenize and/or provision credentials into mobile devices for payment services provided by such card issuers to their customers. At the point-of-sale, users simply need to tap their smartphones, or other contactless enabled devices, at a D-PAS enabled contactless terminal. IDEMIA's platform is endorsed by all major mobile wallet providers and deployed at scale to manage the enrollment, provisioning and lifecycle of tens of millions of



cards in dozens of countries around the world. "We are very proud to be working once again with Discover. This agreement is another major milestone in our longterm relationship. We are looking forward to leveraging our respective assets and capabilities. The goal is to extend the reach to financial institutions and other service providers such as general purpose debit or credit but also gift, incentive, payroll, campus or private label card issuers." Pierre Barrial, Executive Vice-President for Financial Institutions activities at IDEMIA

"By furthering our relationship with IDEMIA, we are helping third-party clients build tokenization systems that best meet the needs of their customers. This may in turn allow even more cardholders to use their mobile devices with confidence for payment and other value-added services." Ricardo Leite, vice president of Global Commerce at Discover

Discover and IDEMIA are members of ACT Canada; please visit www.discover.com and www.idemia.com.

16. ALIBABA'S TRAVEL SERVICE INTEGRATES FACIAL RECOGNITION FOR HOTEL CHECK-IN

Source: Mobile Payments Today (09/28)

Shiji Group, a network solutions provider for hotels, working with Fliggy, Alibaba's travel service, has integrated facial recognition for hotel check-in, including credit authorization for 50 hotels in the Hainan district of China, according to a press release. Fliggy provided the reservation and customer data while Shiji provided the integration, distribution, payment gateway and on-property systems to provide a seamless guest experience. "Our aim with this project has been to find ways for hotels to increase guest satisfaction by reducing wait times as much as possible," Kevin King, chief operating officer of Shiji Group, said in the release. When a guest makes a reservation on Fliggy, the guest's information is processed to the hotel's property management system. When the guest arrives at check-in, they simply scan their ID on the kiosk. The solution then verifies the ID against the public security system, performs a credit authorization and produces the room card.



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