Welcome to the **October** edition of ACT News. This complimentary service is provided by ACT Canada; "building an informed marketplace". Please feel free to forward this to your colleagues.

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ACT Canada Partners

INGENICO *- Point of Sale Equipment Partner*
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.

PAYMENTS BUSINESS - *Media Partner*

New and Renewing Members

General Member
A LA CARD Marketing & Consulting Services Ltd. ~ member since 2004
Amex Bank of Canada ~ member since 2008
Cardtek USA ~ member since 2014
Mercury Payment Systems ~ member since 2011

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

Cardware Connections, ACT Canada AGM & IVIE Awards Gala
November 9, 2015
Toronto, ON
http://www.actcda.com/calendar/act-canada-events/ivie-gala.html#cid=1024&wid=1201
ACT members receive a registration discount

TRUSTECH, formerly Cartes Secure Connexions
November 17-19, 2015
Paris, France
http://www.cartes.com
ACT members receive a registration discount

We have 3 major events happening on November 9th in Toronto – our Annual General Meeting, Cardware Connections & the IVIE Awards Gala. Please see below for more details.

Cardware Connections:

In a world where payment is evolving rapidly, ACT has identified a series of "why should we or why shouldn't we innovate" questions. Instead of our traditional roundtable networking, this will feature a deep dive into the "go or no-go" decision points for introducing innovation.

We will explore the following key decision points that will influence your strategy for innovation:
- Consumer adoption
- Customer experience
- Customer alternatives
- Partners and suppliers
- Other stakeholders
- Business considerations
- Risks
- Costs
- Other issues
- Competitors

This no cost, members only session will take place from 2pm-4pm at the St. Andrew's Club and Conference Centre in Toronto on Monday November 9th. This event follows our Annual General Meeting and precedes the IVIE Awards Gala.

IVIE Awards Gala:

Join us for drinks and celebration as we announce the winners of the 2015 IVIEs, including the new "Most Innovative Organization" winner, on November 9th.

Payment Innovation Nominees Include:
- CIBC TELUS Rewards Visa Card - CIBC
- DC TAG - DC Payments
- Dynamic Code Verification - Gemalto
- Ezio Dynamic Fraud Manager - Gemalto
- Jie Pai - Giesecke & Devrient

- Moneris' Unattended Solution - Moneris
- Rapid Credit Solution - Wellspring Financial
- Scotiabank SCENE Prepaid Reloadable VISA - Scotiabank
- suretap wallet - suretap LP
- Tangerine MasterCard Credit Card - Tangerine

Most Innovative Organization Nominees Include:
- Canadian Imperial Bank of Commerce
- MaRS FinTech
- suretap LP

Registration, drinks and networking: 4:30 - 6:00 pm with the Awards ceremony starts at 6:15 pm

To reserve your seat at Cardware Connections, please visit *http://www.actcda.com/builder/view.php?id=18*.

To reserve your seat at the IVIE Awards Gala, please visit
http://www.actcda.com/calendar/act-canada-events/ivie-gala.html#cid=1024&wid=1201

Articles

1. EDITORIAL - SECURITY AS THE ROAD TO TOP OF WALLET IN THE US
Source: Catherine Johnston, President & CEO, ACT Canada (10/30)

As of late September, the US was poised on the brink of having issued 500 million EMV cards. That accounts for almost half the cards that will eventually be issued – but here is the surprise. I'm told that merchants who are already accepting chip are seeing more than half their transactions coming from these chip cards. From that we can conclude that chip is driving cards to the top of consumers' wallets. Why? Well it is likely that US consumers are like Canadians and so many others. They want to feel secure. Security is more highly rated than convenience or speed when Canadians are surveyed.

So, there are two things you need to pay attention to when you are promoting your payment products or services. No matter how good your security is, you'll still want to convince consumers that they are safe with your product. The second is much harder to do. As we bring out new products, services, form factors and interfaces, we cannot afford security weaknesses. It is said that most people, early adopters and the declining market segments aside, base their opinions on the first three things they hear. This doesn't include corporate advertising, but does include things heard from family, friends and the media. If any of those three cast aspersions on security, the problem will be costly to resolve. We may have

come to expect flawed software, but we expect safe payment. You've heard me say this before and 500 million EMV card holders in the US seem to support this premise.

2. APPLE PAY EXPANDING TO CANADA WITHOUT CANADIAN BANKS
Source: The Globe and Mail, by David Berman (10/27)

Apple Inc. has announced that it is expanding the reach of its Apple Pay mobile payments service to Canada later this year, as part of a global rollout. However, the service will be limited to American Express cardholders, suggesting that Canadian banks are not part of the initial launch. Tim Cook, Apple's chief executive officer, made the announcement during a conference call on Tuesday, following the release of the company's fiscal fourth quarter financial results. "Apple Pay will be available to eligible American Express customers in Australia and Canada this year, and is expected to expand to Spain, Singapore, and Hong Kong in 2016," Mr. Cook said.

Hours later, Canadian banks were quiet about the announcement despite speculation over the past six months that many of them would welcome the payments service for their customers. Other than Bank of Nova Scotia, Canadian banks do not offer American Express cards. In Canada, Visa and MasterCard cards outnumber American Express cards by about 18 to 1. "We believe the greatest success for Apple Pay is with adoption from card brands and issuers across the spectrum, and we look forward to even more payment choices for merchants and consumers over time," Angela Brown, chief executive officer of Moneris Solutions Corp., Canada's largest processor of credit- and debit-card purchases, in a statement. A spokesperson at Bank of Nova Scotia pointed to the bank's own mobile payments solution that is available to Android and BlackBerry users. "In addition to My Mobile Wallet, we are interested in other mobile wallet solutions – existing or new to market – and are assessing their value to our customers," the bank said in a statement.

Apple Pay is a service that allows owners of iPhone 6 models to make purchases with their smartphones at merchant terminals equipped with near field communication capabilities, or NFC. Approximately 85 per cent of terminals in Canada are already up-to-date with the technology, according to Moneris, making Apple Pay's launch in Canada a natural market after initial forays in the United States last year and the UK earlier this year. Apple Pay isn't the first mobile payments service available to Canadians. Some of the big banks have already developed their own payments services, but they are largely restricted to Android and BlackBerry phones, making adoption among consumers limited. Apple Pay is the first system available to owners of iPhones, which comprise about 40 per cent of the smart phone market in Canada.

Some observers believe this is a big deal, given Apple's uncanny ability to lead consumer trends. According to Juniper Research, the launch of Apple Pay in the UK earlier this year heightened the awareness of mobile payment options among the public, making the system a potentially critical factor in increasing usage among consumers. Canadian banks have had an awkward relationship with Apple and other technology giants, though. On the one hand, the banks are keen to give their customers the ability to do their banking and purchasing how they want, when they want – and Apple Pay fits with that mandate. However, the banks also have spoken of technology companies as potential rivals, noting that Apple Pay can push down the profile of banks among their customers.

There is also the issue of fees. When Apple Pay was launched in the United States in 2014, many U.S. banks rushed to offer the service to their customers. They reportedly agreed to pay Apple a fee of 0.15 per cent of all purchases, or 15 cents for every $100 – which a number of other banks now believe is onerous. The Financial Times reported in July that UK banks struck an agreement with Apple for substantially lower fees, paying a few pence per 100-pound transaction. Even then, Barclays was a notable holdout among UK banks during the initial rollout, preferring to focus on its own payments service called bBay, which allows consumers to pay with a variety of wearable devices, such as fobs and stickers, which can be pre-loaded with cash. In the conference call with analysts, Mr. Cook said that Apple Pay is seeing double-digit growth in transactions. However, some observers have noted that the adoption by consumers in the U.S. has been slow. Infoscout, a retail data analytics firm, said recently that the percentage of U.S. iPhone 6 users who have tried Apple Pay fell between March and June, to 13.1 per cent.

American Express, MasterCard, Moneris, Scotiabank and Visa are members of ACT Canada; please visit www.americanexpress.ca, www.mastercard.ca, www.moneris.com, www.scotiabank.com and www.visa.ca.

3. AT THE SPEED OF SOUND: RBC CONVERSATIONAL VOICE BIOMETRICS A CANADIAN FIRST
Source: Canada Newswire (10/05)

A Canadian first for fast, secure client identity verification has been launched by RBC, the first organization in the country to provide Canadians with voice verification through natural conversation. RBC Secure Voice verifies a client's identity within seconds - in fact, by the time you've finished reading this sentence, your identity would already have been authenticated using this new voice biometrics system. There's no need for passwords/PINs or to respond to a standard series of authentication questions. Clients also do not need to memorize and repeat a specific, dictated phrase - a requirement of other voice biometrics systems. Instead, when you call an RBC Contact Centre, your voiceprint - which

is unique to each individual - is matched to your live voice in "real time", within seconds of your call.

"With RBC Secure Voice, our advisors can begin assisting our clients right away - an added convenience our clients are already telling us that they really appreciate," explained Claude DeMone, vice-president, Business Enablement, RBC. "We realize the typical verification process can sometimes seem like a series of skill-testing questions - RBC Secure Voice simplifies this process significantly. All you need to do is talk to an RBC advisor and the distinctive qualities of your voice take care of all the rest." Following a successful pilot this summer, the full launch of RBC Secure Voice is now being phased-in throughout the fall. Enrolment and activation is a simple four-step process:

- When an RBC client calls an RBC Contact Centre to discuss their financial needs, the advisor offers to enroll them in this free voice verification service.
- If the client agrees, the advisor records a voiceprint that is unique to that individual.
- The voiceprint is encrypted and stored on RBC's secure server.
- The next time the client calls an RBC Contact Centre, their identity is quickly verified by matching their live voice with their voiceprint - a process that takes only seconds to complete.

Royal Bank of Canada (RBC) is a member of ACT Canada; please visit www.rbc.com.

4. CHASE PAY MOBILE WALLET LAUNCHES — WITH MCX AS A PARTNER
Source: PYMNTS.com (10/27)

Chase finally lifted the veil on its plans for mobile payments – a mobile/digital closed loop network of merchants and consumers. One of its key differentiators is its embrace of a "merchant-friendly" value proposition in the form of favorable payments economics, integration of existing merchant loyalty programs into its mobile payments platform, and its indemnification of the merchant against any consumer-initiated fraud. And, its announced partnership with the network that was designed to be the mobile only, merchant friendly network – MCX. Gordon Smith, CEO of Consumer & Community Banking at JPMC Chase Cards, introduced Chase Pay as a mobile payments solution that provides a "true omnichannel" payments experience – in-store, in-app and online purchases – and built the case for why he believes Chase Pay will be a formidable force in payments:

- Consumer scale with 94 million consumer accounts (debit/credit) and 1 out of every 2 households in the U.S. is a Chase customer. This makes Chase #1 in total debit and credit volume in the U.S.
- Consumer engagement with typical Chase consumers visiting Chase.com 16 times a month – more frequency, he said, than they visit the Wall Street

Journal, New York Times and USA Today combined from their mobile devices
- Merchant services as the #1 wholly owned merchant acquiring business in the U.S.
- Financial heft and stability with $707 billion in sales.
- Favorable economics: Merchants will pay a fixed fee for payments processing, zero fees for value-added features such as security and tokenization and will be indemnified for consumer-directed fraud.
- Value-added scale having assembled a portfolio of technology partners that will enable new Chase Pay features and functions including a partnership with LevelUp that will enable mobile order ahead to more than 340k merchant locations in the U.S.

In the world of Chase Pay, the Chase account will operate as a platform for enabling a variety of data-driven and personalized offers and promotions to Chase Pay customers, including the integration of the merchants' own loyalty programs. This capability, Smith reiterated, not only simplifies the consumer's access to a variety of merchant loyalty programs but gives merchants an incentive to extend Chase Pay to its consumers. Mike Passilla, CEO of Chase Commerce Solutions said that "beating the swipe" is essential to achieving success and scale in mobile payments. Passilla believes that Chase Pay accounts will become an enabling platform for the capture, distribution and redemption of a variety of consumer-directed loyalty and offers and promotions and deals, including what individual merchants may have in place today to serve their consumers. The partnership with MCX brings merchant scale to what Passilla describes as a platform with existing consumer scale. The rollout of the 100,000 merchant locations that are part of the MCX network will begin in mid-2016.

Smith said that Chase Pay's partnership with MCX, which includes such storied retailers as Walmart, Target, Best Buy and Shell, Chase Pay, will go to market with a cloud-based mobile wallet that will work with nearly all smartphones –and the technology that just about all merchants have in their stores – scanners that can read a QR code. Chase Pay will not support NFC. It will, however, support tokenization to secure payments — across all channels – in-store, in-app and online. "Our partnership links Chase and its customer base with CurrentC's extensive network of leading retailers, restaurants, grocery stores and fueling stations, which process over a trillion dollars in transactions annually at more than 100,000 U.S. locations. This is a significant milestone, not just for MCX and Chase, but for mobile payments overall as the industry continues to take shape. Everywhere CurrentC is accepted, Chase Pay will be accepted," Smith confirmed.

Chase Paymentech is a member of ACT Canada; please visit *www.chasepaymentech.ca.*

5. SCOTIABANK EXPANDS MOBILE PAYMENT SERVICE
Source: Payments Business (10/23)

Scotiabank has expanded its mobile payment service, 'My Mobile Wallet', so any customer with one of the many eligible Android or BlackBerry smartphones can now tap their mobile phone to pay for debit and credit purchases at all Interac Flash or Visa payWave enabled terminals. Canada is one of few markets in which MNOs are investing significantly to support mobile payments over SIM based secure elements. This support now includes NFC SIM distribution with all new activations, a connection hub facilitating access to enabled MNOs through a single technical and business interconnection (EnStream), and a preloaded open wallet (Suretap) for on-device credential management. MNOs are adding to their support for mobile payments by deploying capabilities to support customer identification and validation (ID&V) services.

EnStream gives banks an open alternative to closed, proprietary options from international technology brands, allowing banks to maintain their direct relationship with customers through their own banking or payment applications, without having to deploy end-to-end solutions entirely over their own facilities. EnStream also gives local, non-financial credential issuers such as transit authorities and governments, a secure way to take advantage of the opportunities afforded by mobile credentials. Mobile payments are still in early days, in Canada, and the rest of the world. However, mass adoption of enabling contactless credentials for payment over NFC smartphones is now no longer in doubt. This is similar to the introduction of other new technologies, including basic wireless communication itself. Remember in 1995, only 9 per cent of Canadians had wireless devices. Over time, consumers will appreciate the ability to pay with their phones, and like mobile phones themselves, wonder how they ever lived without it. EnStream is proud to be a leading enabler for Canadian mobile payments, delivering services in an environment of open access, high security, international standards, sharing of platforms and wallets, and interoperability.

EnStream, Interac, Scotiabank and Visa are members of ACT Canada; please visit www.enstream.com, www.interac.ca, www.scotiabank.ca and www.visa.ca.

6. INGENICO GROUP, MASTERCARD AND OSCHADBANK BRING CONTACTLESS PAYMENT TO KIEV METRO
Source: Ingenico (10/07)

Ingenico Group announces the successful launch of contactless card payments in 17 Kiev metro central stations, combining Ingenico Group iUC180B smart terminal with Oschadbank's acquiring services, in partnership with MasterCard. The entire Kiev metropolitan network will be equipped with the secure contactless card acceptance solution soon. Today's key challenge for public transportation companies is to bring convenience and innovative services to the

millions of passengers they serve. They must use advanced technologies and combine speed, security, and modern payment systems such as contactless payment. Oschadbank, Ingenico Group and MasterCard together will empower the Kiev Metro to answer the need for seamless access to transportation. The implemented solution allows travelers to access the metro by tapping their MasterCard contactless card at the turnstile.

"We are very pleased to have teamed up with Oschadbank, MasterCard and our partner BKC (Bancomzvjazok) and to launch contactless payment at metro turnstiles in Kiev. This alliance demonstrates our ability to provide far-reaching payment solutions to new segments like public transportation. We are helping the Kiev Metro to ease access to its network, and bringing the traveling experience to the next level," commented Luciano Cavazzana, Eastern Europe and Africa Managing Director, Ingenico Group. "I am delighted that our joint efforts have made it possible to implement this unique and innovative project. JSC "Oschadbank" will handle contactless payments for the Kyiv Metro. It's convenient, reliable and safe. Residents of Kyiv and visitors to the city will be able to check it already today. Thanks to this innovation, Kyiv has moved ahead of most world capitals. In the future, JSC "Oschadbank" will continue to support projects designed to provide comfort and convenience to people," said Andrei Pyshnyi, Chairman of JSC "Oschadbank".

"Modern realities require the development of new solutions, and we want the Kyiv Metro to take the lead in their implementation. Today's innovation is a significant step forward in introducing substantial changes in metro payment methods. Future plans are to enable recharging of metro pass cards using a payment card and possibility for remote top-ups to recharge accounts via Internet," explained Victor Braginskiy, Head of the Kyiv Metro. "MasterCard contactless payment technology is ideal for those places where service speed is especially important. Millions of people in Kyiv take the metro each day, and the possibility of using their MasterCard contactless cards for metro rides will make their trips faster and more comfortable. Implementing contactless payments will also help both the Kyiv Metro and the Kyiv Municipal State Administration to optimize operating costs and to create a fare payment system integrating different modes of transport in the future. We are happy to have partners who are willing to adopt such innovative solution," stated Vira Platonova, Country Manager of the MasterCard Europe representative office in Ukraine and Moldova.

Ingenico and MasterCard are members of ACT Canada; please visit www.ingenico.com and www.mastercard.ca.

7. TSYS SIGNS PAYMENTS AGREEMENT WITH TANGERINE BANK
Source: TSYS (10/13)

TSYS announced that it has signed an agreement with Tangerine, an innovative Canadian direct bank, to provide processing and risk management services for the bank's new consumer credit card portfolio. Formerly ING Direct, Tangerine was officially renamed after it was purchased by Scotiabank in 2014. As of October 6, the bank is now offering Canadians the chance to be among the first to use the new Tangerine Money-Back Credit Card, which offers 2% money-back rewards on all purchases in two categories of their choice and 1% money-back rewards on all other purchases, with no annual fee.

"We are pleased to be working with TSYS as a trusted partner to provide our new Money-Back Credit Card to Canadians," says Peter Aceto, president and chief executive officer of Tangerine. "Their experience and expertise will serve us well as we move forward with our revolutionary new card that allows Canadians to spend and save at the same time." "The Canadian market is important to our North American strategy," said Bill Pruett, president of TSYS' North America Services segment. "We are committed to a long relationship with Tangerine providing innovative products and services that give their accountholders more accessibility and flexibility while delivering the superior service their customers deserve."

Tangerine and TSYS are members of ACT Canada; please visit www.tangerine.ca and www.tsys.com.

8. CAPITAL ONE FIRST U.S. ISSUER TO LAUNCH MOBILE WALLET FOR IN-STORE PURCHASES
Source: CardNotPresent.com (10/19)

Late last week, Capital One became the first major U.S. issuer to introduce a contactless in-store mobile payment app to compete with Apple Pay, Android Pay and Samsung Pay. While Apple is celebrating Apple Pay's first birthday, the Capital One Wallet is following quickly on the heels of the efforts by Google and Samsung, which launched their wallets in September. Capital One cardholders can now use mobile devices to make payments in stores. Visa, on its corporate Tumblr, touted Capital One Wallet's use of the Visa Token Service (VTS) as the first by a U.S. bank. The company is leveraging VTS and the MasterCard Digital Enablement Service to tokenize the payments to protect the personally identifiable information of cardholders.

Capital One and Visa are members of ACT Canada; please visit www.capitalone.ca and www.visa.ca.

9. DREAM PAYMENTS LAUNCHES CANADA'S FIRST OFF-THE-SHELF EMV PAYMENT TERMINAL THAT ACCEPTS INTERAC DEBIT CARD PAYMENTS
Source: Dream Payments (10/26)

Dream Payments, a Payments Cloud for Small Businesses, today announced the launch of the Dream Mobile Point of Sale ("MPOS") solution. Dream Payments ("Dream") has developed Canada's first and only EMV MPOS that is sold in retail stores and accepts Interac Debit, Chip and PIN credit cards, and contactless payments. Dream has also partnered with a leading mobile operator, TELUS, to distribute affordable, secure, MPOS solutions that help merchants sell in-store and on-the-go. The Dream solution consists of an MPOS application for iOS and Android based smartphones and a Bluetooth enabled EMV Debit and Credit Card Reader. The Dream card reader is available through TELUS at an introductory price of $99.99. Payment processing fees are low cost; $0.25 for Interac Debit card transactions and 2.75% for Visa and MasterCard credit card transactions.

"We champion payments innovation that delivers value and meets the needs of the merchant community, particularly small businesses," said Mark O'Connell, President and CEO, Interac Association and Acxsys Corporation. "With the capability of accepting Interac Debit, the Dream Payments mobile point of sale solution offers Canadian merchants an affordable, secure, cloud-based payment acceptance solution." The Dream Payments Cloud powers the Dream MPOS solution and delivers the commerce capabilities desired by small businesses:

- Full Featured: The Dream mobile app allows merchants to accept payments, issue receipts, customize and manage a product catalogue, and view real-time sales. Dream merchants access an online dashboard to generate reports, view analytics, update settings and manage their business right from their smartphone or desktop.
- Easy Setup: Merchants purchase a Dream payment terminal in-store and start accepting payments within minutes. Dream also delivers application, terminal firmware, and security updates remotely through the cloud.
- Secure: Dream provides end-to-end encryption and the latest security technologies to ensure merchants are protected. The Dream solution is EMV and PCI certified providing small merchants with data protection capabilities that meet the payment industry's highest standards.
- Future Ready: The Dream Payments Cloud includes an API used to integrate, certify, and power EMV solutions from leading payment terminal manufacturers. With the Dream API, merchants can readily adopt the payment acceptance solutions of the future.

Dream's launch comes as the US payment processing industry begins its migration to EMV. This migration requires US merchants to upgrade their legacy point of sale devices to newer technology that accepts EMV payment cards. Dream is expanding its Payments Cloud and MPOS solutions to the US in early 2016.

10. BNP PARIBAS TRIALS OT'S INNOVATIVE PAYMENT CARD FOR SECURE ONLINE PAYMENTS
Source: Oberthur (10/05)

BNP Paribas is running a trial of OT MOTION CODE with 1000 French customers. The dynamic security code solution replaces the 3-digit static code located on the back of the card, used to confirm online payments. The dynamic security code is designed to effectively combat payment card fraud, in which hackers obtain the payment information used when consumers make purchases online. The dynamic code changes regularly, meaning that it is impossible to reuse. To carry out the trial, BNP Paribas chose Oberthur Technologies' OT MOTION CODE solution. The payment cards have a screen on their back displaying a security code that is regularly refreshed. This dynamic security code strengthens the security of online payments for BNP Paribas customers, without the slightest change to their customer experience.

Marc Espagnon, Head of Payment and Cash Management at BNP Paribas said: "The trial is fully in line with BNP Paribas' desire to constantly improve our customer experience. By testing this solution with our customers in France, we believe that we will increase their confidence in online payments through increased security". "At OT, our priority is to constantly adapt to new consumer purchasing habits and provide payment solutions that guarantee both maximum security and optimum user-friendliness. With MOTION CODE, OT is offering a fully integrated solution, from production of the card to installation of authentication servers", said Eric Duforest, Managing Director of the Financial Services Institutions at OT. "More than 90% of online transactions in France are made using payment cards. The dynamic security code will improve the security of purchases made online and is compatible with all e-commerce websites. We are glad to have supported BNP Paribas and OT in this innovative move", said Gilbert Arira, Groupement CB CEO.

BNP Paribas regularly rolls out improvements to its payment cards with new features that provide its customers with increasingly individualized and secure ways to use their cards, such as choosing the card design, a revolving credit option, and a 24/7 alert service for suspected fraud. This innovative new development completes our portfolio of solutions offering daily support to our customers.

11. SCOTIABANK FIRST CANADIAN BANK TO LAUNCH BULK INTERAC E-TRANSFER SERVICE
Source: Interac (10/26)

Scotiabank and Interac Association/Acxsys Corporation ("Interac") announced the launch of Bulk Interac e-Transfer for Scotiabank's business banking customers. This service extends the Interac e-Transfer service to Scotiabank's business banking customers by offering a streamlined, secure and cost-effective alternative to cash, cheque or prepaid card disbursements. "Scotiabank is pleased to be the first Canadian Bank to offer this innovative new service to meet the needs of our business banking customers," said Rania Llewellyn, Senior Vice President, Cash Management and Payment Services at Scotiabank. "We are always looking for new ways to make everyday business transactions fast, easy and secure for our customers, and with the Bulk Interac e-Transfer service, our business banking customers have more choices to send electronic payments efficiently."

The Bulk Interac e-Transfer service allows businesses to migrate to electronic payments with ease and simplifies the management of payments by minimizing back-office operational burden. Through an automated file transfer process, businesses can securely and reliably send multiple payments in a single file upload, eliminating the need to issue, track and reconcile costly cheques or handle cash payments. "The Bulk Interac e-Transfer service is a game-changer for commercial disbursements in Canada," said Mark O'Connell, President and CEO, Interac. "Our leadership within the Canadian payments space enables clients, such as Scotiabank, to leverage not only our expertise in electronic money transfers, but also our knowledge and proven capabilities in fraud detection and prevention, data analytics, direct messaging and reporting." Key features of the Bulk Interac e-Transfer service include:
- Flexibility: The service has an overnight processing option and notifications of payments can be delivered to an email address or mobile phone number. There is no minimum value for payments and the expiration dates can be set for up to 364 days in advance.
- Customization: Businesses will have the option to generate customized HTML notifications that bring brand familiarity to the payment notifications.
- Detailed Reporting: Businesses will receive real-time acknowledgment and daily status reports, including the statuses of pending and cancelled transactions.
- Security: Recipients will be able to safely and securely deposit their funds anywhere and anytime they have access to online banking. Each payment is password protected with a security

Interac and Scotiabank are members of ACT Canada; please visit www.interac.ca and www.scotiabank.ca.

12. ERICSSON AND G&D PARTNER TO ENABLE ONE-STOP SHOP FOR GLOBALLY APPLICABLE M2M SOLUTIONS
Source: Giesecke & Devrient (10/19)

Ericsson announced a partnership with Giesecke & Devrient (G&D) to deliver a commercial end-to-end subscription management solution. Via a highly secure process, the system will enable the remote provisioning and management of mobile operator SIM profiles and policies. The joint solution will make it possible for mobile network operators (MNOs) to provide their business customers with a one-stop shop for global M2M connectivity services. In addition, by minimizing the complexity involved in setting up services across disparate regions, the collaboration will target businesses' need to deliver connected devices worldwide.

Ericsson, a world leader in communications technology and services, and G&D, a leading international technology provider specializing in mobile security, will provide an integrated solution to address the challenges that come with deploying connected devices across borders. These challenges include the provisioning and re-provisioning of the SIM profiles remotely, automated billing, reporting, support, and operational management processes. The solution provides MNOs and service providers who use the Ericsson Device Connection Platform (DCP) with the ability to optimize the processes involved. The collaboration between Ericsson and G&D makes it possible for MNOs to remotely manage the initial connectivity, on demand and on a global scale, during the roll-out phases of an M2M/IoT solution.

Integrated solution for MNOs and business customers from Ericsson and G&D. The solution combines the Ericsson DCP and G&D's leading AirOn platform, which covers the management of eUICCs and operator profiles over-the-air (OTA), secure data generation, and selection of the most suitable download channel. All of this is easily managed through an API and with the highest level of security. The G&D solution has already proven that it can be integrated into a range of M2M platforms; for MNOs, this multi-platform usability offers a key competitive edge in the evolving market. "We have partnered with G&D to offer a single, fully interoperable and powerful platform that offers our customers the flexibility that their M2M/IoT business requires. G&D's platform is a proven solution already used by many MNOs worldwide, and adds value to our solution by offering complementary functions," stated Anders Olin, Vice President, Product Area Network Functions, Business Unit Cloud & IP, Ericsson.

Remote provisioning and managing of SIM credentials over-the-air (OTA)

"The collaboration allows us to enhance Ericsson's M2M connected device platform with the highly secure subscription management capabilities of G&D's AirOn solution," stresses Carsten Ahrens, Group Senior Vice President and Head of the Telecommunication Industries division at G&D. "We are delighted that Ericsson has decided to team up with us. It underlines that G&D is the undisputable market leader in subscription management. We offer leading-edge technology for

remotely managing operator profiles on UICCs. Our AirOn solution has proven itself in use in a number of commercial situations. Moreover, we continue to invest and innovate in this area: We support and drive the industry's development activities in our work with our customers, within the GSMA, and as part of other relevant bodies."

Giesecke & Devrient is a member of ACT Canada; please visit www.gi-de.com.

13. SAMSUNG LAUNCHES MOBILE PAYMENTS IN U.S.
Source: CardNotPresent.com (09/28)

As Samsung Pay launched in the U.S. today, the smartphone manufacturer said consumers in South Korea have made more than 1.5 million transactions worth more than $30 million since its debut there one month ago. Samsung Pay enables users to pay at the POS by tapping their device at the payment terminal. Samsung hopes its version of mobile payments, because it works at traditional swipe terminals in addition to new NFC-enabled terminals, will overtake Apple Pay since many merchants have not yet upgraded their POS technology. Unlike Apple Pay, however, Samsung Pay will not be available for use as an in-app payment method, thought the company said that feature is coming. In South Korea, the company said it has added a Samsung Card to the wallet that can be used to make online payments. "Although the details on Samsung Pay usage are constantly being updated, the response we've received so far has been beyond our expectations," said Injong Rhee, executive vice president of Samsung Electronics and global head of Samsung Pay. "We knew Samsung Pay would be a game-changer in the mobile payments industry and now with the user data, we are seeing the greater impact it is having on consumer behavior and on the lifestyle of our customers."

Samsung launches in the U.S. today on Galaxy S6, S6 edge, S6 edge+ and Note5 devices. The company said it plans launches in the UK and China soon.

14. VERIFONE INTRODUCES VERIFONE ENGAGE: REDEFINES WHAT'S EXPECTED OF POINT-OF-SALE (POS)
Source: Let's Talk Payments (10/22)

To empower merchants, acquirers, and service providers with new commerce opportunities and experiences in store and protection against escalating security threats—Verifone announced Verifone Engage, the next generation family of payment devices that globally redefines what's expected of point-of-sale (POS) hardware and software. Verifone Engage is the company's first-ever, fully-integrated, Linux-based product family, encompassing a complete range of payment solutions for merchants, acquirers, and service providers. It is

the result of a new strategy at Verifone to bring unique value to the POS and the consumer experience with intuitive, connected and commerce-enabled solutions.

"We're leading the industry to dramatically transform the retail POS to be much more than a box that takes card-based payments," said Glen Robson, EVP, Global Head of Terminals Solutions, Verifone. "The Verifone Engage family of products is a major paradigm shift in our approach to the point of sale. We are leveraging the power and performance of our open and flexible architecture to bring an entirely different level of interaction between consumers and merchants. With a two-way conversation that can happen at the counter and anywhere in store, we are making the shopping experience more profitable for merchants and more rewarding for consumers." Offering the best of physical, mobile and online consumer interaction, Verifone Engage helps businesses create meaningful relationships that drive loyalty and revenue growth. In addition, enterprise and third-party apps from the Verifone App Marketplace will offer the potential of unlimited customization and personalization options for merchants. The Verifone Engage product family meets current payment system demands while delivering future commerce opportunities for merchants with:
1. Sleek and functional design with crisp multi-media displays
    - Simple, intuitive user interface for more consistent and seamless experiences
    - Multiple form factors for merchants that make a variety of customer interactions possible
2. Enhanced buying experiences with two-way customer interactivity
    - Store and display rich media for upsell, cross-sell and advertising opportunities
    - Push out coupons and offers on-the-spot and reward frequent shoppers with loyalty and points programs
3. Advanced multi-layered security
    - Safeguard sensitive information with encryption and tokenization
    - Meets the latest PCI requirements (PCI 4.X approved)
4. Full compatibility with all wallets
    - Built-in standard for faster EMV adoption to combat fraud without additional regulatory certifications
    - Supports full spectrum of payment functions including: mag-stripe, EMV, and NFC/contactless as well as support for BLE connectivity

Verifone is a member of ACT Canada; please visit www.verifone.com.

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15. NEW INFINEON SECURITY PARTNER NETWORK MAKES IOT SECURITY EASILY ACCESSIBLE
Source: Infineon (10/07)

Infineon Technologies AG leaps forward in bringing security to the Internet of Things (IoT). The company launched the Infineon Security Partner Network

(ISPN) to make proven semiconductor-based security easily accessible to the growing number of manufacturers of connected devices and systems. The ISPN connects IoT security players with outstanding expertise in specific applications and markets. They provide solutions for applications ranging from professional water filter systems to smart homes and industrial control. The partners cover the value chain from design consultation to systems integration and service management.

"Implementing security to protect sensitive data, connected devices and even intellectual property has never been easier," said Juergen Spaenkuch, head of platform security at Infineon. "The ISPN brings hardware-based security to new application areas. From home appliances to industrial machines or medical equipment– security will be a crucial factor the more our world is getting connected." ISPN partners are security experts selected according to their specific competence. They contribute their know-how and capabilities through use cases as well as reference designs presented in the virtual showroom and deliver solutions for secured devices and systems in different fields of applications. Germany-based WIBU-SYSTEMS AG, IKV from Taiwan and Beijing Broadstar Info Tech from China already joined the network, to name only a few.

"We help manufacturers of intelligent devices and application providers to better understand the threats of today and tomorrow that can undermine their business," said Oliver Winzenried, CEO and founder of Wibu-Systems. "We propose innovative and robust security solutions, and assist in their straightforward implementation; beyond the security aspect, our ultimate goal is to support OEMs in their generation of new revenue growth models through flexible license lifecycle management and software entitlement." The increasing relevance of this topic is reflected by market research from IDC which predicts that 4 billion connected people, more than 25 billion embedded and intelligent systems and 50 trillion Gigabyte of exchanged data are expected by 2020. Already today, online devices per 100 inhabitants account to approximately 38 percent in South Korea, 24 percent in the United States and 22 percent in Germany (OECD 2015). Increased connectivity in the IoT will raise serious privacy, data protection and data security concerns. This is why Infineon and the ISPN in particular strive for developing easy-to-integrate, end-to-end security solutions.

Infineon is a member of ACT Canada; please visit www.infineon.com.

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16. GEMALTO PROTECTS BANKS AND CARD ISSUERS AGAINST CARD-NOT-PRESENT FRAUD WITH NEXT GENERATION PAYMENT SECURITY SOLUTION
Source: Gemalto (10/13)

Gemalto announces the launch of Dynamic Code Verification, a comprehensive payment security solution that protects against Card-Not-Present

(CNP) fraud on-line and ensures an easy user-experience cardholders have come to expect. This complete dynamic CVV/CVC solution includes an EMV payment display card that secures traditional in-store and eCommerce payments, ATM withdrawals, a mobile version, a validation server and associated services. The mobile offer is unique to Gemalto, supporting the digital vision of banks with mobile at the forefront of their business strategies. The solution allows issuers to replace the static 3-digit visual cryptogram traditionally used for online purchases with a time based dynamic CVV/CVC displayed on the customer's payment card or on their mobile. The code changes every 20 minutes, dramatically enhancing the security level of online transactions.

The Nilson Report estimates that total global fraud losses were $16.31 billion in 2014, a rise of 19% year-on-year. CNP fraud accounted for 25% of this figure, and is set to increase significantly. Banks have started to introduce solutions that provide a higher level of security but these can still be time consuming and impact on the overall customer experience. As a result the shopping cart abandonment rate is staggering, with 68%[1] of online transactions initiated not completed. Gemalto is the only company able to provide a fully integrated solution banks can implement easily, both in the physical card or mobile version, and with minimal cardholder education required. The enhanced security level reduces costs associated with CNP fraud management and delivers higher customer retention. Consumer study and user testing recently conducted by an independent market research firm has demonstrated that end users intuitively understand the security benefits of this display bank card and are more likely to use this bank card as their first choice for everyday card transactions[2]. Enhanced technology also delivers a long product lifecycle, with battery life typically extending to four years.

"Gemalto's Dynamic Code Verification solution provides banks with complete flexibility to meet individual customer preferences – card or mobile – and refine their customer segmentation model while maximizing reach," said Håkan Nordfjell, Senior Vice President of eBanking and eCommerce at Gemalto. "Gemalto is unique in being able to offer banks a complete CNP security solution, further supported by an extended portfolio of services such as consulting, integration, personalization and fulfilment."

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

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17. RETAILERS TO CONGRESS: EMV EQUIPMENT DOES NOT STOP BREACHES, NEW CHIP CARDS NEED A PIN
Source: Let's Talk Payments (10/09)

The National Retail Federation (NRF) recently published a statement to the US Congress regarding EMV standard implementation, its effect on small businesses and outcomes for consumers. According to the NRF, while the new cards make it somewhat more difficult for criminals to use stolen card numbers,

they do not actually prevent numbers from being stolen in the first place, and stolen numbers can still be used for online and other types of fraud. New chip-and-signature credit cards without a PIN will not stop data breaches, and small businesses should not be pressured to install the equipment to accept them. "The new EMV equipment does not stop breaches," NRF Senior Vice President for Government Relations David French said in the press release regarding the letter to Congress. "Indeed, in many cases it provides no significant benefits either to the business or to the business' regular customers."

Cards that U.S. banks have been issuing for generations have magnetic stripes, which can be easily copied. New cards being actively deployed throughout the country by issuers will replace the magnetic stripe cards with new chip-enabled ones. However, French warns that new cards should also need a secure PIN to replace a signature that can be easily forged. Worldwide the chip-enabled card usage is verified by the PIN. Surely, a chip card is a harder target to copy, but in case the card is lost or stolen, nothing can prevent a fraud. "The card industry is demanding that the entire merchant community spend between $30 and $35 billion dollars to install Chip and PIN terminals, but, with precious few exceptions, banks are only willing to undertake the expense of introducing Chip without PIN cards. These new cards do not reduce fraud across the board." said French in the statement. He also added that "businesses are either primarily or totally responsible for disputed transaction fraud and Card-Not-Present fraud (such as Internet transactions)" and that the burden of fraud has been shifted onto businesses. "What's more, businesses are told they must pay for fraud "up front" in the form of ever rising swipe fees for the privilege of accepting cards."

According to the NRF, installation costs vary from a few hundred dollars to thousands of dollars per terminal. Meanwhile, the only "incentive" for merchants to install costly equipment is the threat that merchants will be forced to absorb the fraud banks already push onto businesses and to pay the full measure of the banks' fraud exposure if small businesses do not follow new requirements.

18. PIVOTAL PAYMENTS' FLEXPOINT TAKES THE POS OUT OF PCI COMPLIANCE SCOPE
Source: Pivotal Payments (10/07)

Pivotal Payments released a white paper written by Coalfire, a leader in cybersecurity risk management and compliance services, describing how the FlexPoint integrated payments platform allows developers to achieve an "out of scope" solution for their point of sale (POS) applications. Developers and integrators face significant investment in achieving and maintaining Payment Card Industry (PCI) compliance. FlexPoint delivers a highly secure yet simplified method for ISVs and VARs to integrate with their merchants' payment systems. Pivotal Payments engaged Coalfire Systems Inc., a respected PCI Payment Application Qualified Security Assessor (PA-QSA), to conduct an independent technical

assessment of its proprietary FlexPoint application. Coalfire performed technical testing, architectural assessment and compliance assessment, with the resulting analysis outlining how the FlexPoint application, when properly deployed can remove an ISV's POS solution from the scope of the Payment Application Data Security Standard (PA-DSS).

Key findings and benefits of FlexPoint's integrated payment solution:
- Using point-to-point encryption (P2PE), sensitive cardholder data and decryption keys are safely stored off-site in the processor's encrypted environment
- A firewall between the core payment application ensures zero interference with payment cards, helping developers eliminate PA-DSS audits
- FlexPoint's API to third party platform gives ISVs the flexibility to securely add any app, quickly and easily
- Value added resellers can deploy a highly secure integrated system more rapidly
- Seamless, cloud-based software upgrades are automatically delivered via the FlexControl service

"We've made it extremely simple for our partners and merchants to reduce the resources necessary to manage their payment security infrastructure," said Joe Lane, senior vice president of FlexPoint, a division of Pivotal Payments. "With traditional full integration, POS developers are required to work with an integrated payment device and middleware provider. Even if the data that passes through the POS is encrypted, the POS still remains in scope for PCI. With FlexPoint, no PCI data ever enters the POS."

Pivotal Payments is a member of ACT Canada; please visit www.pivotalpayments.com.

19. SAMSUNG'S LOOPPAY ATTACKED BY CHINESE HACKERS
Source: CardNotPresent.com (10/08)

LoopPay, the Boston-area mobile payments technology company acquired by Samsung in February, has been breached by Chinese hackers, according to a report in the New York Times. It appears, however, that concern centers around corporate espionage rather than an attempt to harvest customer information. LoopPay's technology, unlike systems based on near-field communication (NFC), enables contactless payments at the point of sale without requiring merchants to upgrade to new terminals. The company's magnetic secure transmission (MST) communicates with traditional mag stripe card readers. Samsung acquired LoopPay to differentiate its in-store mobile wallet offering—Samsung Pay—from competitors Apple Pay and Android Pay, which only use NFC to transmit payment information to POS terminals.

Will Graylin, the founder and CEO of LoopPay and co-general manager of Samsung Pay, told the Times the attackers compromised LoopPay's corporate network, rather than the network that helps manage payments. Samsung moved quickly to reiterate that message and assure users that Samsung Pay's systems were not breached. "Samsung Pay was not impacted and at no point was any personal payment information at risk," according to a statement from Samsung's Chief Privacy Officer, Darlene Cedres. "This was an isolated incident that targeted the LoopPay corporate network, which is a physically separate network."

20. EVO LAUNCHES MPOS SOLUTION SUPPORTING APPLE PAY AND EMV GLOBALLY
Source: EVO Payments (10/27)

EVO Payments International (EVO) announced that EVO Snap* has launched EVO Snap* Mobile, a mobile point-of-sale (mPOS) hardware and software solution for global card-present payment acceptance and customer loyalty management. Responding to demand from merchants, development partners and channel partners, the new EVO Snap* Mobile provides on-the-go processing and loyalty solutions to small and mid-sized businesses globally. The solution, designed for retail and restaurant businesses, leverages the EVO Snap* platform to deliver international payment processing capabilities and value-added loyalty services with immediate support for Apple Pay and traditional magnetic stripe transactions. Beginning in the first quarter of 2015, EVO Snap* Mobile will support EMV payment acceptance (chip and PIN in addition to chip and signature) for North America and European markets.

"Our channel and development partners are continuously looking for innovative solutions to serve their small business customers holistically," said Peter Osberg, Senior Vice President of EVO Snap*. "The addition of EVO Snap* Mobile helps to round out our omnichannel small business package including mPOS, eCommerce and back-office solutions." In addition to global payment acceptance, the solution leverages EVO's recently launched marketing services platform (EVO Snap* Connect) to facilitate in-app loyalty services, card-linked offers and real-time rewards at the point-of-sale. With support for both iOS and Android devices, EVO Snap* Mobile provides a simple, out-of-the-box mPOS solution for retail and restaurant merchants or can be co-branded for development and channel partners to create bundled solutions or supplement existing offerings.

About EVO Snap* As the integrated payments division for EVO Payments International, EVO Snap* simplifies in-store, online and mobile payments - making payments a Snap* for software companies and merchants. EVO Snap* is a one-stop shop for application integration, merchant underwriting and payment processing. EVO Snap* offers single-integration access to omni-channel payment processing through one API and can instantly decision, board and activate

merchants. Visit *www.evosnap.com* for more information about the platform and its services.

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

21. CARTA INTRODUCES GROUND-BREAKING TOKEN PROCESSING APPLIANCE FOR CLOUD-BASED PAYMENTS
Source: Carta Worldwide (10/15)

Carta Worldwide is pleased to introduce a new product that dramatically expedites speed to market for large banks, processors and domestic networks looking to implement secure mobile payments. Carta's Token Processing Appliance (TPA) enables HCE and tokenization-based mobile payments deployment with a turn-key solution. It simplifies on-premises implementation using a highly configurable and easily integrated set of hardware and software modules. The TPA is the first ever product available in market that delivers a complete package of requisite components for cloud based payments—including tokenization—for in-house deployment. The combined software/hardware bundle blends the speed and flexibility of cloud-based software as a service (SaaS) models with the security and control of on-premises deployment. Mobile wallet providers can overcome challenges associated with system upgrades, custom software development and ongoing updates with a simplified, scalable offering.

Carta is already one of the world's leading providers of digital transaction processing, offering custom and hosted solutions for partners in more than 20 countries. This new solution opens up their award-winning hosted approach to hundreds of issuers operating through a domestic network and to large issuers that want to keep solutions in-house. The TPA changes the mobile payments game—offering an unprecedented combination of flexibility and security. Critically, the TPA streamlines testing, certification and on-going updates associated with in-house implementation. For a large issuer, domestic network or processor it means minimized risk, fastest time to market and lower overall total-cost-of-ownership. The TPA is compliant with specifications for cloud-based payments and tokenization from EMVCo and the payment networks (schemes). TPA core functions include Tokenization Management, Token Transaction Processing and Management, Credential Management and Provisioning along with SDK- or API-driven Mobile Payment Application integration. The tested and market-ready solution simplifies what it typically a lengthy and complex process.

The TPA offers multi-tenant architecture allowing multiple programs to cost-effectively share a common private infrastructure in a segregated virtual environment. Whether housed internally within an issuing bank, or offered as a service on-behalf of banks, all tenants benefit from a flexible long term roadmap—a future-proof solution that can adapt with ever-shifting user needs and technology advances. "Mobile payments and particularly mobile payment security are critical

and complex," explained Carta CEO Brian Semkiw. "The TPA introduces maximum security with minimum complexity. This disruptive new product aligns with our corporate motto: 'complexity made simple.'" Rui Mendes, Carta's CTO commented, "Processors and the banks that depend on older platforms have the challenge of adapting legacy code to modern payment requirements. TPA provides an effective bridge to address those challenges."

Carta Worldwide is a member of ACT Canada; please visit www.cartaworldwide.com.

22. STARBUCKS RELEASE OF MOBILE ORDER & PAY IN CANADA IS ABOUT DATA
Source: IT Business (10/06)

Starbucks Coffee Co. will bring its Mobile Order & Pay to 300 stores in the Toronto area on Oct. 13. An update to the mobile app on iOS will add a new option to the top of the user interface – "Order." Users can place orders for drink and food and then choose what Starbucks they'll pick it up from. When they arrive, a barista has the order ready and hands it over. No need to wait in line. It's the latest effort that Starbucks has made to boost interest in its success mobile app, which enables both a payments method and a loyalty program. For customers, it's a convenient way to pay and earn rewards for their repeat business. For Starbucks, it's a treasure trove of data that tells a story about customer behaviour. "The more you understand about your customers and what their routines look like, the more value you can add to it," says Jessica Mills, director of brand and digital, Starbucks Canada. "We've seen tremendous growth and adoption for the loyalty program."

According to Starbucks, mobile payments account for 18 per cent of all in-store transactions in its Canadian locations today. More than 1 million Canadians are active My Starbucks Rewards members. Starbucks is rolling its Mobile Order & Pay feature into Canada after just completing the roll-out at its company-owned U.S. stores Sept. 22. While it won't share specific numbers on the performance of the program there, Mills says that the feature is driving incremental visits and beating internal benchmarks. Starbucks Mobile Order & Pay will be available in other Canadian cities sometime in 2016, the company says. There are about 1,300 Starbucks locations in Canada at present. Support for the Android app is also in the works.

23. TSYS AND INGENICO GROUP TO OFFER NEW SEMI-INTEGRATED EMV SOLUTION
Source: BusinessWire(10/26)

TSYS and Ingenico Group announced a new semi-integrated solution to simplify the EMV certification process. TSYS is the first processor to Class A certify

Ingenico Group's new offering, which is designed to enable partners with the ability to easily build and deploy secure EMV and NFC solutions. The combined TSYS and Ingenico Group offering provides Value-Added Resellers (VARs) and Integrated Software Vendors (ISVs) with a simple and secure pathway to begin enabling EMV payments. This easy-to-implement solution empowers VARs and ISVs to focus on developing their core products, while offering them a secure method for accepting payments, including magnetic stripe, EMV and NFC contactless payments.

Using a semi-integrated approach, communications between the PIN pad and point-of-sale (POS) system are limited to non-sensitive exchanges, preventing card data from entering the POS. By taking the POS out of the payment flow process, not only are EMV certification and PCI compliance simplified, but overall costs and time required for EMV implementation are reduced as well. Fully certified through all major card brands, this new TSYS-certified solution also has the ability to process with TSYS Guardian EncryptionSM, ensuring payments are both reliable and secure. "Our goal is make the transition to accepting EMV transactions as seamless as possible," said Craig Ludwig, head of product for TSYS' Merchant Services segment. "Our relationship with Ingenico Group, as well as their industry-leading expertise in EMV and NFC, allows us to provide our VAR and ISV partners with a quick-to-market solution. We're excited to bring our clients yet another solution that eases the burden of EMV migration."

"We're pleased that TSYS is the first processor to certify Ingenico Group's new semi-integrated solution," said Bernie Frey, senior vice president of Acquirer Sales, North America, Ingenico Group. "This new offering ideally positions TSYS and Ingenico Group to address the demand for field upgrades that EMV is creating. Our flexible integration toolkit simplifies the process of developing and implementing a semi-integrated solution for merchants."

Ingenico and TSYS are members of ACT Canada; please visit www.ingenico.com and www.tsys.com.

24. SECURITY PROFESSIONALS PESSIMISTIC ABOUT PROTECTING MOBILE PAYMENTS
Source: CardNotPresent.com (09/28)

While m-commerce is expected to explode globally in the next few years, especially in China, paying for more things online using a mobile device is exposing security vulnerabilities that will drive mobile-payment security breaches higher, according to new research from non-profit security industry group ISACA. The organization surveyed 900 cybersecurity experts and 87 percent of them agree mobile payment data breaches will be on the rise in the next 12 months even as 42 percent have used mobile devices to make purchases this year. "Mobile payments represent the latest frontier for the choice we make to balance security

and privacy risk and convenience," said John Pironti, risk advisor with ISACA and president of IP Architects. "ISACA members, who are some of the most cyber-aware professionals in the world, are using mobile payments while simultaneously identifying and contemplating their potential security risks. This shows that fear of identity theft or a data breach is not slowing down adoption—and it shouldn't—as long as risk is properly managed and effective and appropriate security features are in place."

Nearly half of those polled said mobile payments are not secure, citing use of public WiFi, lost or stolen devices, phishing/smishing (phishing attacks via text messages) and weak passwords as the main vulnerabilities associated with mobile payments.

25. MASTERCARD TOKENIZES MASTERPASS FOR ONLINE AND IN-APP PURCHASES
Source: Mobile Payments Today (10/19)

MasterCard announced it will integrate a fully tokenized checkout experience within MasterPass by leveraging the MasterCard Digital Enablement Service. The card network said in a press release this move gives consumers the freedom to shop more securely online or in-app from any connected device. The "Buy with MasterPass" button is currently found within the website and apps of more than 250,000 merchants globally across travel, entertainment, quick service restaurants, retail and more, according to the announcement. At the request of issuers enabling MasterPass for their customers, MasterCard will replace the personal account numbers for consumer credit, debit, commercial and prepaid cards stored in MasterPass with a secure "token" – a new 16-digit number that represents the existing PAN on the front of a payment card. Tokens are unique to each bank-connected MasterPass wallet and carry EMV-based security protection, according to the announcement.

"In tokenizing MasterPass, we're creating for consumers a secure 'digital stream' directly from their bank which can be connected through the online and mobile banking tools they already know. Together with our banks, we are creating the easiest and most secure way to pay today," said Ed McLaughlin, chief emerging payments officer at MasterCard.

MasterCard is a member of ACT Canada; please visit www.mastercard.ca.

26. CALGARY LOOKS AT LAUNCHING SMARTPHONE TICKETING SYSTEM
Source: Calgary Herald (10/11)

Calgarians may eventually be able to buy passes for city services on their smartphone, in what could be a first step toward filling the gap left by the failed Connect transit card. A Request for Proposals issued last month indicates the city is looking at launching an eTicketing app that would give customers the ability to purchase passes on the go. "The City of Calgary (The City) requests proposals from experienced proponents for the provision of a mature and reliable mobile application (eTicketing) that will allow customers to purchase and display tickets on their mobile device," the RFP reads. "Currently customers have to stand in line to purchase tickets to events such as skating. With an eTicketing solution customers will benefit as they will no longer have to line up to make purchases from The City for items such as daily, monthly or annual passes."

The RFP doesn't specify if the proposed app would allow users to purchase transit tickets on their mobile phone — a system already in place in Toronto. The TTCconnect app, launched in July, allows transit users to buy a single-day pass or group pass. But Coun. Shane Keating, the chair of the city's Standing Policy Committee on Transportation and Transit, sees the benefit of allowing customers to purchase e-tickets for the bus or CTrain. "I think we have to look at every avenue we can to make it as easy as possible for customers to get onto transit," he said.

He noted the app could also potentially allow residents to purchase mobile tickets for city services like swimming at recreation facilities. "I know there's a lot of ways of doing it online already," he noted. "But that's hitting that sector of society that uses that — there's still a sector that wants to write a cheque, and we should accommodate those. There's a sector that, you know, lives by their smartphone, so why should we not be looking at it? "As long as we're getting into a very safe exchange of information, because that's the worry of wireless…is how do you deal with those concepts." If the city does use the app for the purchase of transit tickets, Keating noted equipping buses with infrared readers for barcode tickets could present a challenge. "Unless there's a standard code…that just said they paid for this trip," he said.

According to the city's request for proposals, the solution will not rely on additional hardware or swipe cards. "It will utilize mobile devices that customers already own, such as iPhones, and it will eliminate the need to line up at ticket windows or vending machines," the document indicates. The app is not intended to replace existing payment methods, but would serve as a "complimentary service" to current ticket purchasing options. Keating expects it could take a few months up to a couple of years to get the app up and running. Various locations in the U.S. allow the purchase of transit tickets by smartphone, including Portland, Chicago, Boston and New Jersey. Calgary Transit already has an app that allows users to find out, in real time, when their next bus or CTrain is arriving. The city scrapped its plans this summer to bring in the Connect card, an electronic transit fare system, after initially launching the program in 2009. The city's negotiations to

recoup the $5 million it spent on the smart fare system have failed and will likely be headed to court, Calgary Transit director Doug Morgan said last month.

27. TWO-THIRDS OF CONSUMERS FIND LOCATION-BASED REWARDS APPEALING
Source: LoyaltyOne (10/05)

Most Canadian shoppers are using their smartphones to assist them while shopping and would like businesses to send them location-based offers and rewards, reveals a new report from the Canadian Marketing Association (CMA) and LoyaltyOne. Over half (56%) of those surveyed have used beacon technology at some point while shopping and overall consumer awareness of beacons and location-based services (LBS) technology is high (86%). "Today's consumer is even more empowered thanks to the advances in mobile technology," says Sandra Singer, Vice-President of Research, CMA. "Our research indicates shoppers are already using their smart devices in-store which indicates a clear opportunity for Canadian businesses to directly market to customers through mobile devices."

Of those surveyed, 62% of shoppers said they use their mobile devices to assist them with their in-store shopping experience, and this increases at the millennial generation with 80% using their device. Almost half (45%) of those surveyed indicated they have used a device in-store that has led them to make an immediate purchase. When asked what is appealing about connecting with retailers through in-store beacons, 62% of shoppers indicated they like the idea of receiving rewards relevant to their location and over half (56%) like the idea of receiving alerts relevant to their whereabouts. "Canadian retailers as a whole have approached beacon retail technology with caution. Beacons now have consumers' attention and we are seeing more and more retailers testing the waters," says Michael Cohen, Director of Mobile API & Analytics Innovation, LoyaltyOne. "For retailers that are currently using beacons or thinking about entering the beacon market, it is vital that they merge these new digital customer solutions with big data so that their customers receive relevant, personalized offers."

For the select Canadian businesses that are already using beacons and LBS technology, the study found that frequency of LBS is a big reason consumers uninstall or opt-out of receiving beacon notifications. Of those surveyed, one-fifth (23%) of respondents said they have uninstalled or opted out of push notifications from a retailer's app due to the frequency of messaging, while another one-fifth (20%) uninstalled or opted out due to lack of relevance.

LoyaltyOne is a member of ACT Canada; please visit www.loyalty.com.

28. APPLE PAY COMING TO STARBUCKS' REGISTERS IN 2016
Source: Mobile Payments Today (10/09)

Starbucks afficianados soon will be able to use Apple Pay to purchase a venti soy caramel latte, but it remains to be seen whether that fancy drink will count towards their rewards stash. Jennifer Bailey, vice president of Apple Pay, announced the partnership with Starbucks during Thursday's Code Mobile conference, a tech industry event sponsored by re/code. Bailey said all Starbucks stores will accept Apple Pay in 2016, and that the mobile-payment system is also coming to KFC and Chili's. Starbucks told the New York Times in a statement that it would test Apple Pay is some stores this year before rolling it out in the U.S. next year. The company said it has been accepting Apple Pay in the U.K. for the past few months.

Bailey declined to comment on whether Starbucks Apple Pay purchases would qualify for the chain's rewards system. Starbucks' mobile app is linked to its rewards system and is the primary reason why 20 percent of all its sales happen through that particular channel. At the moment, Apple Pay can use the system to reload their prepaid accounts within the Starbucks mobile app.

29. FIME TO OFFER MASTERCARD CLOUD-BASED MOBILE PAYMENT APPLICATION TESTING SERVICES
Source: FIME (10/27)

FIME announces that its EMEA testing laboratory, in France, has been accredited by MasterCard to offer functional testing to mobile payment solution providers and payment issuers developing applications based on the MasterCard Cloud Based Payments (MCBP) specifications. The global market for HCE and cloud-based payments is booming. The respective launches of Apple Pay, Samsung Pay and Android Pay have stimulated the mobile payments market; over 45 projects have been announced to date with more in the preparatory stages.

By leveraging its expertise in NFC mobile payments and tokenization, FIME is working closely with the developers of innovative cloud-based solutions. Currently, FIME is working on seven host card emulation (HCE) and tokenization MCBP application testing and certification projects around the world, each of which is being supported by FIME's newly accredited lab. Arnaud Peninon, Vice President, Global Laboratories at FIME, comments: "FIME enables solution providers to complete all of their application testing requirements via a single specialist partner. In order to make their services available to as many different handsets as possible, many have begun to develop both secure element and cloud-based versions of their solutions. To bring these to market as quickly and efficiently as possible they need a comprehensive testing partner with deep technical knowledge of each deployment model. FIME plays this role, for both cloud-based payment solutions providers and payment issuers."

In order to further accelerate HCE and tokenization testing processes, FIME also announces today a suite of training and consultancy services designed to help solution providers and payment issuers that are developing new cloud-based mobile payment services. "FIME is tailoring how it engages with each solution provider to ensure we support them in the most appropriate way," adds Peninon. "Some request high-level guidance on how to approach the whole business of cloud-based payments with HCE and tokenization. Others want to assess and validate their solution. For these providers we offer a bespoke blend of technical consultancy and training to help them achieve their objectives." FIME is also working to introduce a MCBP qualified application test tool in early 2016 which will further expedite the certification process by pre-validating their applications before going to the laboratory for testing. MCBP specifications create a foundation for rapid global deployments of mobile payment services. The approach simplifies and speeds the deployment process of contactless mobile offerings for card-issuing financial institutions and other solution providers.

FIME and MasterCard are members of ACT Canada; please visit www.fime.com and www.masercard.ca.

30. YOU CAN NOW SHOP WITH FACEBOOK
Source: Let's Talk Payments (10/14)

Facebook announced that it was adding a shopping section among other sections on its social platform. As noticed by Facebook, people are coming to the platform not only to connect with friends and family but also with products and brands. In fact, a survey by Facebook suggested that nearly half of its users come to actively look for products, with a majority of them discovering new products in their news feed, pages and groups. In order to enhance the experiences, Facebook picked up the trend and implemented a shopping section as a native option. The idea is to make it easier for both people and businesses to connect. Users will have a better experience discovering products and businesses will have a new stream of revenue. Some of the features have been fully launched while others are in early test phases. The company is now collecting feedback to improve the service and pivot the testing.

Last year, Facebook introduced a new feature to drive sales for businesses—the carousel format for Facebook ads. After the implementation of a carousel, businesses reported 30-50% lower cost per conversion. Facebook also brought carousel to Instagram ads. In addition, they made videos available for the carousel format. According to the figures published by Facebook, as a dynamic advertising, carousel drove Neiman Marcus' conversions up three times over, with an 85% click-through rate. Facebook's shopping page is another step towards monetizing the platform. Surely, you will not see random advertising; the shopping experience will be tailored, as Facebook is known for ultra-targeting. The ad

experience on Facebook has three parts: the Canvas, the "Buy" CTA button and the "Shop" section in pages.

Over the coming weeks, Facebook will be testing the experience with Canvas. After clicking on an ad, people will get to have a fast-loading, full-screen experience where they can browse through a variety of products, before going to the retailer's website to purchase. With the "Buy" CTA button, people can click the button in ads in their news feeds to purchase a product directly from a business, without leaving Facebook. According to Facebook's recent post on launching a shopping page, one billion people are visiting pages every month, which means people are already turning to pages to learn more about businesses. The Shop section will allow owners to showcase their products and improve users' experience with seamless and smooth browsing through products and brands. Facebook is testing the Shop section with a limited number of small businesses in the US. The company wants to create a single place on the platform to discover new products and shop. As stated in the announcement, Facebook will eventually explore incorporating additional content into this experience, such as items listed for sale on Facebook Groups.

Facebook states that its goal is to make it easier for people to discover relevant products on mobile while also driving results for businesses.

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31. INGENICO GROUP LAUNCHES ITS FIRST HACKATHON TO REINVENT CONVENIENCE SHOPPING ON ITS TERMINALS|
Source: Ingenico (10/12)

Ingenico Group is pursuing the development of its Telium Tetra offer and announcing today the launch of its first hackathon for innovation. Participants will be invited to develop HTML5 applications enabling merchants to offer value-added services to their customers from their terminal (marketing campaigns, omnichannel, customer loyalty, couponing, upselling, cross-selling, etc.). The "App Shop Factory" hackathon is open to all. It will take place in Paris from 6 to 8 November and will offer all innovators the opportunity to develop their projects with support from Ingenico Group experts and mentors. The three winning teams will join the Ingenico Group fast-track business incubator and will present their applications on the Group stand at the CARTES trade show from 17 to 19 November in Villepinte. Visitors will vote on the best finalists and the winners' names will be announced on 19 November. Telium Tetra is a transformative innovation in the relationship between banks, merchants and consumers and is built around four pillars: a high-tech operating system, a range of new terminals, a fleet management platform aimed at financial institutions that distribute terminals and a Marketplace distributing applications that retailers can download onto their terminals to offer their customers services that go beyond payment.

With Telium Tetra, we are offering a comprehensive solution to our customers. Just like what Appstores brought to our smartphones, the Marketplace ecosystem paves the way for innovative merchant concepts which enable us to support the development of their businesses," commented Jérôme Bourreau, VP Marketplace Business Line, Ingenico Group. "Through this event, we intend to act as a catalyst for collective ingenuity, to reclaim what could be tomorrow's commerce."

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

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32. GEMALTO DELIVERS IOT SMART DATA TO EMERGENCY RESPONDERS THROUGHOUT THE U.S.
Source: Gemalto (10/21)

Gemalto is delivering actionable, up-to-the minute data to first responders in the field. Working with Intrado, a leading provider of 9-1-1 technology solutions, Gemalto's cloud-based Sensor Logic Application Enablement Platform translates important data and sends alerts to emergency teams to improve response times and outcomes, while continuously monitoring developments as they occur. Data from remote sensors is collected by Gemalto's SensorLogic Application Enablement Platform, which transforms it into easy-to-use information and Intrado's middleware, developed with assistance from Prodapt, automatically sends it to first responders via a secure web portal and SMS alerts. Through an app on a smartphone, tablet or other connected device, live information from operations is always at their fingertips including dynamic weather conditions, video footage from IP cameras and GPS location of incidents. The constant flow of information gives first responders a better understanding of complex emergency situations allowing them to arrive prepared to execute rescue missions.

"We selected Gemalto technology based on their wide range of expertise in IoT projects of all sizes," said Kevin Coyne, VP of Product at Intrado. "With proven technology and support from Gemalto plus our longstanding experience in emergency services, our solution makes it easy to go from concept to field deployment." "After the detailed evaluation, we chose Gemalto's SensorLogic platform, which helped us as a system integrator to develop, integrate with devices and deploy the Emergency Aware Services – both web & mobile applications," said Meena Krishnan, Vice President, Prodapt M2M/IoT Services. "With well-defined APIs, test bed and round-the-clock technical support, Prodapt was able to assist Intrado with the end-to-end implementation using SensorLogic platform seamlessly."

"The SensorLogic cloud-based M2M solution gives safety and rescue teams more actionable data to pull from when they are making decisions on day-to-day activities or during time-sensitive and urgent response situations," said Juan Carlos Lazcano, Vice President of M2M for North America at Gemalto. "Our flexible

and ruggedized platform can work across many use-cases depending on the need whether it is mission critical, track or trace, or even a more connected experience when camping."

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

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33. SCOTIABANK BUILDS DIGITAL FACTORY
Source: Payments Business (10/21)

Scotiabank is opening a 'digital factory' in downtown Toronto, ON, to house 350 technology staffers dedicated to designing and delivering innovative digital services. The new centre, set to be fully operational by the middle of next year, will bring together a network of teams focussed on transforming how the bank delivers services in a digital age. Made up of a mix of existing and new employees, the 'factory' will be home to user interface and user experience designers; scrum masters, agile coaches and solution architects; and data scientists and other advanced analytics specialists. Scotiabank is also promising to use the site as a base from which to work with fintech startups as it seeks to meet customer demands in a market where half of all monthly interactions between banks and their users are through digital channels.

Michael Zerbs, WVP, co-head, information technology, Scotiabank, says: "Scotiabank's Digital Factory will create an environment where our teams can be flexible, adventurous, empowered and challenged to design and deliver a game-changing customer experience."

Scotiabank is a member of ACT Canada; please visit www.scotiabank.ca.

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34. SONY WANTS TO RIVAL APPLE, SAMSUNG WITH ITS OWN PAYMENT SYSTEM
Source: Mobile World Live (10/21)

Sony wants hopes use public transport as a springboard to promote its long-standing Felica contactless payment system across South East Asia. According to Bloomberg, the Japanese vendor wants to make Felica as popular regionally as it is at home by striking deals with transport companies across the region. Relative late comers in mobile payments, such as Apple and Samsung, have been gaining much more attention than Sony but the Japanese company wants to rebalance that. Transport systems can be a springboard for attracting merchants to the Felica system, as a big commuter base encourages retailers in train stations or bus depots to participate, said Kazuyuki Sakamoto, a Sony senior general manager in charge of Felica operations.

The plan is to make the technology easier to adopt. The Felica platform, which would only work in a smartphone with a customised chip, may be embedded as software on common chipsets as early as next year, Sakamoto said. Despite its popularity at home, Felica's first deployment was actually in the Octopus card system in Hong Kong. Octopus cards are used in a variety of situations beyond public transport, including convenience stores, supermarkets, fast-food restaurants, parking meters, service stations and vending machines. Last week, PT Telekomunikasi Indonesia struck a deal with Sony to enable payments for bus fares in Bandung with smartphones before taking Felica into retail outlets. Vietnam is another possible market where Sony has trialled Felica with a Hanoi bus operator.

35. MASTERCARD AND NXP PARTNER TO BRING PAYMENTS TO ANY DEVICE
Source NXP Semiconductors (10/26)

NXP Semiconductors (NXP) announced a collaboration with MasterCard to simplify the on boarding of secure element-based devices by integrating NXP's Loader Service solution into MasterCard's payment ecosystem. Through MasterCard's new program, which aims to enable any IoT device to become a payment device, the companies are revolutionizing how OEMs and banks deploy secure "pay" solutions to the market. By incorporating NXP's Loader Service solution into MasterCard's ecosystem, device manufacturers can easily enable their customers to use their new devices, such as activity trackers, mobile phones, smart watches, smart jewellery, etc., for convenient and secure mobile payments. NXP's Loader Service provides the scalability and flexibility necessary for running highly secure services, which enables OEMs and Service Providers to easily deploy "Pay" solutions by significantly simplifying the value chain of deploying credentials to devices and lowering associated costs.

"With the mobile payment market evolving at an increasingly rapid pace, it is vital OEMs are able to quickly adapt to changing demands and deploy new technologies securely," said Jeff Miles, VP of Payments at NXP. "Through support from companies like MasterCard, we've simplified the process of deploying secure mobile services, such as payments, transit, or access control, to create a true plug-and-play solution, drastically reducing the time it takes for OEMs to bring products to market and providing consumers with a complete, industry leading security solution." As the market leader in secure transaction technology, NXP's Loader Service provides the highest level of data protection and encryption to end users, issuers, payment network operators and manufacturers. By loading an applet into NXP's secure elements, the solution will work with NXP's full range of secure mobile transactions products, such as PN66T, providing an EMV certified solution deployable on a global scale and compatible with both legacy and future payment infrastructure.

"MasterCard is working closely with NXP and OEMs to ensure that the payments revolution gains momentum through turnkey solutions that make it easier than ever to establish a secure platform to do business," said James Anderson, Group Executive, Platform Management at MasterCard. "Bringing NXP's Loader Service Solution into our ecosystems enables manufacturers to spend more time focusing on the user experience and less time on supporting the infrastructure and maintenance when adding secure transactions to their devices."

MasterCard and NXP are members of ACT Canada; please visit www.mastercard.ca and www.nxp.com.

36. INGENICO GROUP AND INTEL TO ACCELERATE THE DEPLOYMENT OF SECURE CONNECTED DEVICES IN RETAIL ENVIRONMENTS
Source: Ingenico (10/27)

Ingenico Group announced that it was advancing collaboration with Intel in creating for retailers a secure connectivity path from the cash register to the payment terminal, end-to-end. The Group has achieved the first implementation of the Intel Data Protection Technology for Transactions solution into Ingenico mobile POS. Intel DPT for Transactions is designed to secure both financial and consumer data from the moment a transaction is initiated. Combining the Ingenico mobile solution and the mobile tablet delivers a strong connectivity channel between the cash register and the payment terminal and prevents security breaches. "Our pledge is to secure the retail environment and facilitate payment management. Through our joint efforts, Intel and Ingenico Group now can provide end-to-end protection," commented Michel Léger, EVP Innovation, Ingenico Group. "This solution offers retailers a powerful combination of authentication technology and scalable architecture to maximize payment security, and we are looking forward to continuing our fruitful collaboration with Intel with a view to develop a strong ecosystem for innovation in the world of connected devices."

"Ingenico Group and Intel both recognize the transaction protections in place today focus on consumer's credit card information," stated Joe Jensen, vice president of Intel's Retail Solutions Division. "This focus has caused a shift in the malware community efforts toward seizing personally identifiable information. Intel Data Protection Technology for Transactions is unique in protecting all the information running through transaction networks, highlighting the best of what Intel technology can do to secure the evolving retail customer experience."

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

37. WHAT DO IOT & BLOCKCHAIN HAVE IN COMMON?
Source: Let's Talk Payments (10/08)

"The Internet of Things could be one of the largest and most exciting verticals for blockchain technology in the coming years." – Ryan Selkis, Director of Investments at Digital Currency Group. Blockchain was an under-rated innovation in the beginning. A lot (investments, use-cases, startups) is happening in this field and the future of blockchain is bright and promising. There has been a large increase in the number of ways in which real-world assets could be linked to the blockchain and traded digitally. One of the most important non-financial use cases of blockchain is its application in IoT. According to a paper by IBM, "Applying the blockchain concept to the world of IoT (Internet of Things) offers fascinating possibilities. Right from the time a product completes final assembly, it can be registered by the manufacturer into a universal blockchain representing its beginning of life. Once sold, a dealer or end customer can register it to a regional blockchain (a community, city or state). By creating and matching the supply and demand for physical assets in real time, the IoT will create new marketplaces"

There are various blockchain applications for IoT and smart systems. When applied to Internet of Things, the concept of blockchain can open up the possibilities of new innovations. Blockchain technology can be used in tracking the history of individual devices. It can enable the processing of transactions and coordination between devices that are involved. The technology will make the IoT devices independent by keeping a record of the ledger of data exchanges between the device and other devices, services and human users, and by enabling them to conduct transactions. Various established technology firms and startups have been exploring multiple ways of using these use cases. They are investing and extensively researching into the various possible solutions that the technology could be leveraged into. The main aim of these use-cases is to link the home network to the cloud and electrical devices nearby (home automation). Some of these firms are:

1. <u>IBM</u>

IBM has been one of the earliest companies to announce their plans of exploring blockchain. It has formed multiple partnerships at various levels proving their interest in blockchain. It has released a report stating that blockchain could be an elegant solution for the IoT. In January 2015, it revealed a proof-of-concept for ADEPT, a research project for IoT using P2P blockchain technology. The company has also partnered with Samsung for building a proof-of-concept system for the next generation of the IoT. The system will be based on IBM'S ADEPT (Autonomous Decentralized Peer-to-Peer Telemetry). The ADEPT platform consists of three elements: Etherum, Telehash and BitTorrent. With the platform, both the companies hope to bring in a set of devices which can automatically signal operational problems and are able to retrieve software updated on their own without any human interference. These devices will also be able to communicate

with other nearby devices in order to facilitate battery powering and energy efficiency.

2. Filament

The company came up with their sensor device TAP which enables the deployment of a secure, all-range wireless network in seconds. The device can talk directly to another TAP device at distances of up to 10 miles, and can also connect to it directly with a phone, tablet, or computer. The company is leveraging operations on its blockchain-based Technology Stack. Blockchain technology enables Filament devices to independently process payments and enable smart contracts ensuring the trust in transactions. Founded in 2012, the company recently raised $5 M in Series A funding which was led by Bullpen Capital, Verizon Ventures and Samsung Ventures.

3. Ken Code – e plug

According to a white paper by Ken Code, ePlug is a tiny circuit board that resides inside "ePlug-certified" electrical outlets and light switches. The product offers options for Meshnet, distributed computing, end-to-end data encryption, dead zone-free Wi-Fi, timer, USB ports, temperature, touch, light and motion sensors for safety and security, and LEDs for notifications and night lighting. The product has blockchain-based login to ensure security. Upon entering the correct Internet address/URL, the ePlug owner will be presented with a login screen. Initially, blockchain platforms such as OneName.io and KeyBase.io will be used for ID authentication and access to the ePlug.

4. Tilepay

The company has develped a micropayments platform. Tilepay is a decentralized payment system that is based on the bitcoin blockchain and can be downloaded to a user's personal computer, laptop or mobile phone. Every IoT device will have a unique token that can accept payments via blockchain technology.

Since 1989, ACT Canada has been the internationally recognized authority in the market. As the eyes, ears and voice for stakeholders focused on secure payment, mobile, NFC, loyalty, secure identity, and leveraging EMV, we promote knowledge transfer, thought leadership and networking. We help members protect their interests, advance their causes, build their business and grow the market. We take a neutral and non-partisan approach to all issues, facilitating collaboration among issuers, brands, acquirers, merchants, regulators, solution providers, governments and other stakeholders. Over 50% of our members have been with us for more than 5 years, enjoying ongoing value from their affiliation with ACT Canada. Please visit www.actcda.com or contact our office at 1 (905) 426-6360.

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