A Message From the Executive Director

Lack of security is almost commonplace now. Major data breaches are in the news; does anybody take notice? The Smart Card Alliance believes security is under-appreciated and underfunded, and we’ve been proactive by embarking on a number of activities to inform and educate. In this issue, I write about our new Internet of Things Security Council and October’s Security of Things 2016 Conference in Chicago. This end of summer issue also features updates on Alliance Councils, our member profile focuses on Vantiv, the feature article spotlights the transition of the EMV Migration Forum to the U.S. Payments Forum, and we also note our new CSCIP and CSEIP recipients.

Sincerely,
Randy Vanderhoof
Executive Director, Smart Card Alliance

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Feature Article:
EMV Migration Forum Changes Name to U.S. Payments Forum

The EMV Migration Forum has changed its name to the U.S. Payments Forum, expanding its focus to additional emerging payments technologies. The Forum will continue to support EMV chip migration and also broaden its scope include other new and emerging payments technologies in the U.S. This issue's article explains the name change, and the organization's objectives and priorities. You can learn more by visiting www.us-paymentsforum.org.

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Making the Right Connections

Nobody is surprised to learn we live in a dangerous world, where criminal gangs and state-sponsored hackers roam the world’s internet-connected business systems and are able to regularly penetrate security systems to escape with millions of personal records, valuable corporate secrets, or even sensitive and potentially embarrassing email records (DNC, Sony). Yet most people feel safe when they install a high-tech thermostat in their home, start their car, or drive while obeying traffic signals and overhead digital speed limit signs. These common modern amenities are also increasingly internet-connected, and part of a growing ecosystem of connected devices called the Internet of Things (IoT). But how safe are they, and who is monitoring whether they meet expected security standards that will keep us all safe?

The Smart Card Alliance believes that security is under-appreciated and under-invested in by the manufacturers of devices connected to the Internet of Things. We’ve taken action, and have embarked on a number of activities to inform and educate. We recently formed the Internet of Things Security Council, and in October we will present the Security of Things 2016 Conference in Chicago. This new event will bring together security experts to educate early adopters, discuss faster adoption of secure IoT solutions, and provide resources for IoT device manufacturers. To further our mission, we recently launched a new web portal called the IOT Security Connection (www.iotsecurityconnection.com). We created this information web portal as part of our expanded focus to provide educational resources and guidance for implementing secure Internet of Things architectures using embedded security and privacy technology. The portal features relevant news, resources, expert commentary and thought leadership on the security and privacy of IoT for technology and service providers, IT and security experts, integrators, consultants and IoT enthusiasts.

Lack of security is almost commonplace now. How often has a news story about a major data breach showed up in your news feed and you hardly take notice of it. The assumption is that those criminals were going after something of value, like credit card data or health records, and it fits with a familiar anecdote – people rob banks because that is where the money is. But what about the criminals who just want to create mayhem, or worse – do real harm to people and property just to prove to officials and society that they can do it.

When hackers were able to break into a Jeep Cherokee last summer and adjust the radio, windshield wipers, and the brakes while the car was moving, that got people’s attention. Government regulators got involved, consumer groups were outraged, and it resulted in Chrysler recalling 1.3 million vehicles. Hacks have been reported regarding the NEST smart thermostat, using the device as an entry point to hacking other connected devices in the home. There are websites with instructions on how to hack into electronic road signs and traffic signals, putting drivers at risk. Just when you think it can’t get worse, real life mirrored an episode of “Homeland,” where home medical devices were hacked, readings were altered, and settings were changed, with life-threatening consequences.

The Smart Card Alliance believes that security is under-appreciated and under-invested in by the manufacturers of devices connected to the Internet of Things.

These examples of IoT security vulnerabilities should be a call to action for great security standards and oversight. Without that, it will be left to government regulations to step in, and that will be an even bigger problem because it will take years before federal regulators gain the knowledge and insight into the market to make sound rules that won’t stifle innovation.

At the Security of Things 2016 Conference on October 19-20 in Chicago, topics on securing the devices that make up IoT will be covered, along with defining appropriate security policy and technology for many different applications, from connected cars, home healthcare devices, video cameras, consumer wearables and more. Check out the agenda and register early to take advantage of the early registration discounts, which expire August 31st. Thank you for your support of the Smart Card Alliance.

Sincerely,

Randy Vanderhoof
Executive Director, Smart Card Alliance
rvanderhoof@smartcardalliance.org
Collaboration Is the Silent Unifier Behind Success

Dear Members, Friends, and Colleagues,

The Smart Card Alliance Latin America chapter (SCALA), The National Bureau of Science, Technology, and Innovation (SENACYT), and The City of Knowledge Foundation (FCDS), have come together for the development and expansion of the Digital Center of Excellence (known by its Spanish acronym, CED). This joint effort will be one of the primary pillars of a movement towards collaboration and the transformation of different industries being impacted by smart card related technologies.

This collaboration brings together a common cause in unity, combining efforts, attributes and resources to expand the use, understanding, and development of such technologies. Included in this effort are government agencies, companies, industry leadership, universities, professionals, professors, the Alliance, and a technology park foundation.

Though the process of establishing this collaboration has taken longer than anticipated, it required the alignment of many different parties who had to put aside individual requirements to establish a common strategy that would benefit all. We at SCALA feel that by including other organizations, institutions, and partners in this effort, it offers greater chances of success.

The African proverb, “If you want to go fast, go alone. If you want to go far, go together,” provides clarity of the value of developing team work and industry collaboration. This is one of the key pillars that has generated success for SCALA, but it is the hardest message to transmit to industry professionals, organizations, and end users.

That may be because it takes a long time to come together and agree upon a common solution to a problem. It may also be because we fear that collaboration will reveal our own particular plans and strategies, or that we’ll need to put aside our individual desires for a common cause that would benefit all parties within the industry.

It is especially hard, when the systems we operate in are based on immediate fiscal results and financial responsibilities to shareholders, and not based on the value they generate for the industry and society in general. Many times these strategies are in opposition, but when a team works together, incredible things are accomplished – like this important partnership for the development of CED.

Those of you who have been watching the Rio Olympics and have seen entertaining commercials promoting smart card technology, have also witnessed many examples of the collaborative process among teammates. In at least one case, competing athletes met when one helped another during a race.

The Olympics, and its sportsmanlike environment, remind us of what can be accomplished through team effort. It also provides a glimpse of what we can accomplish through our industry collaborations, sharing of experiences, and support from individuals, organizations, and end users getting involved in a common cause.

Imagine all the incredible things that we could accomplish if all the industry players, organizations, professionals, end users, and anyone that would like to contribute to an improved society, used smart card technology adequately and to its full potential. We could improve financial inclusion, improve the safety and security of communities, eliminate unnecessary hassles in crossing borders, provide a universal identity that would guarantee everyone’s basic human rights, create organized and efficient societies, and increase the time families can spend together.

This choice has to be made by each and every one of us. I hope we can start counting on everyone joining us in these efforts and initiatives, and in the development of our Digital Center of Excellence. And, perhaps with this level of support, people with the best ideas and knowledge can start making the key decisions in society.

Sincerely,

Edgar Betts
Director, Smart Card Alliance Latin America (SCALA)
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1. What are your main business profile and offerings?

Vantiv is making payments smarter, faster and easier for all our partners, as well as the consumers they serve. From the largest retailers in the U.S., to the coffee shop down the street, we are leading the transformation in payments through chip-enabled cards, mobile wallets, eCommerce, and payment solutions for businesses of all sizes. Vantiv is the largest PIN debit acquirer in the U.S. and second largest merchant acquirer. The company’s strategy includes expanding further into high-growth channels and verticals, including integrated payments, eCommerce, and merchant banking.

At Vantiv, we're changing the face of payments, one customer at a time. Our vision is to be the leader in simplifying payments innovation, to enable commerce and help our customers and partners thrive. We plan to follow our mission of creating seamless experiences and exceptional payment solutions across the commerce ecosystem.

We serve more than one third of the top 100 U.S. retailers, work with 1,400 financial institutions, and inspire thousands of developers to design products that include payments. Our products span from payment processing and card issuing, to security and data analytics. Vantiv enables merchants of all sizes to accept and process credit, debit and prepaid payments and provides them with value-added services, such as security solutions and fraud management, information solutions and interchange management. Vantiv also provides payment services to financial institutions, such as card issuer processing, payment network processing, fraud protection, card production, prepaid program management, ATM driving, and network gateway and switching services that use our proprietary Jeanie PIN debit payment network.

2. What role does smart card technology play in supporting your business?

We see the movement to smart card technology impacting all of our lines of business, and in turn, all of our product offerings. We need to enable the right technologies for our clients, when they want them and how they want them delivered. We operate in the last three feet of payments, so the solutions that are brought to market need to work correctly, 100% of the time, otherwise commerce stops. Emerging payments technologies like smart cards have the potential to improve the cardholder/shopper experience, but they must be implemented carefully and correctly.

3. What trends do you see developing in the market that you hope to capitalize on?

EMV is a hot topic right now, and at Vantiv we are working to educate merchants and partners about the need for chip card processing. In the majority of cases, we combine EMV with tokenization and point-to-point encryption. These technologies not only fight against the four threats – fraud, data compromise, PCI non-compliance, and financial loss – but also allow businesses to process NFC payments like Apple Pay and other mobile wallets. The move to secure transaction data creates a unique mix of opportunities and challenges. We see the opportunity to help our merchant and financial institution customers realize the benefits of better security, and implement solutions to protect themselves, and consumers.
4. What obstacles to growth must you overcome to capitalize on these opportunities?

Increased complexity and scope of these solutions tend to increase commercialization and implementation timeframes. Again, due to the critical path of the payments transaction, our clients demand reliable processing solutions that scale to meet the demands of their ever-growing customer base. Bringing solutions to market and getting them enabled at millions of merchant locations, financial institutions, and ATMs will take time as well as a focused effort from all stakeholders involved. We will be focused on EMV and security for many years to come.

5. What do you see as the key factors driving smart card technology in government and commercial markets in the U.S.?

While the liability shift the card brands put in place was the catalyst for commercial adoption of smart card payment technology, the underlying need to secure payment transactions and reduce the loss of billions of dollars from card fraud is the real driver of payment smart cards. Technology will improve as demand increases. Customers, businesses and partners will see the value in smart card and contactless payments, as the customer checkout experience improves. Over time the use of smart card technology will drive brand loyalty and enhanced analytics.

6. How do you see your involvement in the Alliance and the industry councils helping your company?

We see it as a great opportunity to learn more about consumers and to advocate for change in the industry. The payments ecosystem is extremely dynamic, and we see the Alliance as a way to both see where the puck is, and to skate to where the puck is going.

7. What are some of the challenges you see confronting the smart card technology industry?

The U.S. payment system is one of the largest and most complex in the world and it involves many independent players across the
ecosystem working together. The chip card conversion process for each merchant can be complex and is often highly-dependent on the decisions and timelines of multiple parties, including software vendors, hardware manufacturers and point-of-sale resellers. Vantiv has been diligently working with these parties and our clients to help them quickly enable chip card technology.

Vantiv has also worked with ecosystem parties from day one to drive awareness, education and early integration of this anti-fraud technology so that we can help businesses convert to a more secure form of card payment, which protects them and their customers. In addition, through our work with organizations such as the Smart Card Alliance and the EMV Migration Forum (now the U.S. Payments Forum), Vantiv has been at the forefront of solving industry-wide challenges such as EMV debit processing in the U.S. and working to streamline the EMV testing and certification process.

Aligning on standards is always challenging as key players also try to differentiate their product and service offerings. Broad scale enablement and adoption of any technology takes time, and it needs to solve a real business or financial challenge in order to be adopted at scale.

8. You’re often asked about the benefits to upgrade to EMV acceptance. How do you respond?

Here are five reasons, and I list the source for each of them.

1. Fight Fraudsters
Chip cards generate a one-time code with every transaction making it nearly impossible to create counterfeit cards for use in stores. As the EU has completed its migration to EMV acceptance, the region has seen an 80% reduction in credit card fraud while the U.S. has witnessed a 47% increase. (Source: Discover Financial Services, 2013)

2. Build Customer Trust
Consumers are increasingly concerned with card data protection. Give them peace of mind when they choose your business. In a recent survey of 1,011 American adults conducted by Vision Critical 2014, 64% were more likely to pay in cash due to recent security breaches and approximately the same number of respondents believed that a credit or debit card with an EMV chip would result in more secure financial transactions. (Source: http://www.pymnts.com/wp-content/uploads/2015/04/EMV-The-Next-Twelve-Months-PYMNTS-eBook.pdf)

3. Limit Your Fraud Chargeback Risk
As of October 1, 2015, new network rules mean merchants are more likely to be financially liable for fraud, lost/stolen transactions at their in-store locations without EMV compliance. In 2015 that liability in the United States is estimated to total more than $10 billion. (Source: http://www.paymentssource.com/news/paythink/missingthe-emv-liability-shift-bears-a-huge-cost-3018661-1.html)

4. Be Able to Accept New Payment Technologies
Accept mobile and contactless payments such as Apple Pay and Android Pay when you upgrade your terminal or POS system. Most new payment acceptance devices not only support EMV cards, but also process NFC mobile transactions, such as Apple Pay. According to Deloitte, contactless transactions can be up to 25% faster than paying with cash. The speed and ease of the transaction can reduce time spent at the POS by 77%, while merchants benefit from a higher turnover rate. (Source: http://www.pymnts.com/wp-content/uploads/2015/04/EMV-The-Next-Twelve-Months-PYMNTS-eBook.pdf)

5. Improve Customer Experience at the POS
Allow customers to have a safe and seamless experience. Consumers also know that these cards will help them shop safer, so they will choose merchants who take this seriously and strive to sell safely via EMV acceptance.

Visit www.vantiv.com for more information.

Member Point of Contact

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EMV Migration Forum Changes Name to U.S. Payments Forum

Since the summer of 2012, the EMV Migration Forum has been instrumental in the progress of the U.S. migration to EMV chip technology by providing a forum for essential cooperation and coordination across the whole payments ecosystem, including retailers, card issuers, networks, acquirers, processors, technology providers and industry associations. To provide expanded support for the payments ecosystem and other new and emerging payments technologies in the U.S., the EMV Migration Forum changed its name to the U.S. Payments Forum in August 2016. The U.S. Payments Forum will also continue to focus on areas of EMV migration that require support and implementation guidance, including EMV debit and contactless acceptance, as well as segments that have unique requirements including hospitality, grocery, petroleum, transportation and ATM.

Why the Name Change

"It’s estimated that half of the cards in the market are chip cards and 1.2 million merchant locations are enabled to accept them. The remarkable progress we’ve seen in the U.S. chip migration to date is a direct result of the commitment and cooperation from the entire payments industry," said Randy Vanderhoof, director of the U.S. Payments Forum and formerly the director of the EMV Migration Forum. “There are also many other payment technologies that require the same breadth of stakeholder engagement, cooperation and coordination for successful implementation in the U.S. The transition of this organization to the U.S. Payments Forum provides an opportunity to capitalize on the strong, existing organization that the networks, issuers, merchants, processors, and industry suppliers already know and trust, allowing the entire industry to come together to ensure successful implementation of these new technologies.”

U.S. Payments Forum Objectives and Priorities

The U.S. Payments Forum will support the need for alignment of the implementation steps required of payments industry stakeholders involved in successfully introducing EMV chip technology and other new and emerging technologies, including the global and domestic payment networks, issuers, merchants, acquirers, processors, industry suppliers, service providers and integrators, to help enable successful introduction of payments technologies to protect the security of, and enhance opportunities for payment transactions within the U.S.

"Most consumers have at least one chip card in their wallet and are able to use the chip to shop frequently, and the payment networks are already reporting drops in counterfeit card fraud," said Vanderhoof. "With this progress, there is still work to be done. The migration to chip payments is the biggest and most complex implementation by the U.S. payments ecosystem, and will remain a top priority for the U.S. Payments Forum.”
U.S. Payments Forum Activities

The following activities – many of which require some level of industry cooperation and/or coordination involving face-to-face dialog and written communications – comprise the majority of Forum work:

- Continued support of the chip migration, especially supporting those segments that have not completed their implementation, or are working out further challenges related to their implementations
- Providing best practices and actionable guidance on technical issues, consumer awareness and other non-proprietary issues relating to industry-wide adoption and implementation of new payments technologies
- Facilitating the potential coordination of process-related elements of the payments infrastructure that impact multiple stakeholders
- Engaging in projects to facilitate consumer adoption and allow for a more consistent consumer experience
- Providing implementation feedback on proposed new payments specifications to standards bodies

EMV Migration Forum Noteworthy Contributions

Since its inception in 2012, the EMV Migration Forum has created many resources to educate and provide chip technology implementation guidance, including white papers, webinars, educational video recordings, campaigns and websites. Some of its contributions include:

- Defining the technical approach for implementing Durbin-compliant EMV debit for the U.S. market
- Providing educational resources for consumers, merchants and issuers, including the GoChipCard.com website
- Publishing guidance on key technical considerations, including minimum card and terminal requirements and transaction processing during communications disruptions
- Hosting and supporting meetings and working committees to facilitate discussion of EMV implementation across multiple stakeholders
- Providing recommended communications best practices for issuers and merchants

U.S. Payments Forum Resources

As with the EMV Migration Forum, the U.S. Payments Forum will continue to hold quarterly member meetings which include both educational sessions and project working sessions. Forum members receive monthly and quarterly newsletters on activities, programs, Working Committee updates and other news. A weekly news digest is distributed on Friday mornings, with articles culled from global news sources. The EMV Connection web site will also continue to host Forum publications for public and member access.

For information on the U.S. Payments Forum, please visit www.uspaymentsforum.org

Upcoming U.S. Payments Forum Meetings

US PAYMENTS FORUM

Sept. 20-21, 2016 • Hilton Rosemont / Chicago O’Hare • Rosemont, IL

US PAYMENTS FORUM

December 8-9, 2016 • Biltmore Hotel • Coral Gables, FL
Updates from the Alliance Industry Councils

Access Control Council

Health and Human Services Council
- The Health and Human Services Council is currently defining new projects.

Internet of Things Security Council
- The IoT Security Council has been meeting regularly to launch projects and has formed an interim leadership committee to manage Council activities. Willy Dommen (Accenture) is the interim Council chair, with Stu Cox (Giesecke & Devrient), Gonda Lamberink (UL), Sami Nassar (NXP Semiconductors), and Christopher Williams (Exponent) joining him on the committee. Council steering committee and officer elections will be held at the end of 2016.
- The Council is working on two projects: a webinar on IoT security and a new white paper on embedded hardware security for IoT applications. The white paper will provide an overview of the security threats to the IoT ecosystem and describe the value of embedded hardware security in end devices used in IoT applications.
- The Alliance has launched a new content portal, www.IoTSecurityConnection.com, as part of its expanded focus to provide educational resources and guidance for implementing secure IoT architectures using embedded security and privacy technology. The portal features relevant news, resources, expert commentary and thought leadership on the security and privacy of IoT. If you have content that could be featured on the new portal, please contact Cathy Medich.

Mobile Council
- The Mobile Council is currently completing a white paper on mobile identity authentication. The white paper will provide an educational resource on mobile identity authentication and describe example use cases.
- The Council has two new projects in process – a white paper on mobile profiles and provisioning and a webinar on tokenization – and is discussing the statement of work for a Trusted Execution Environment (TEE) 101 white paper.

Payments Council
- The Payments Council published the new white paper, Contactless EMV Payments: Benefits for Consumers, Merchants and Issuers. The white paper addresses current questions about the adoption of contactless payments, including: how contactless fits into today’s payment industry; what is currently different from earlier adoption attempts; and why now is the ideal time to go contactless. Members involved in the development of this white paper included: Advanced Card Systems; American Express; Bell ID; Capgemini; CH2M; Chase Commerce Solutions; CPI Card Group; Discover Financial Services; First Data Corporation; Fiserv; Gemalto; Giesecke & Devrient; GlobalPlatform; Ingenico Group; Metropolitan Transportation Authority (MTA); NXP Semiconductors; Oberthur Technologies; Quadagno & Associates; TSYS; VeriFone; Visa Inc.; Wells Fargo; Xerox.
- The Council currently has four active projects: blockchain and smart card technology white paper; EMVCo Payment Account Reference (PAR) use cases white paper; contactless EMV payments benefits infographics for merchants and issuers; contactless EMV payments webinar.

Transportation Council
- The Transportation Council is working on a white paper on multimodal payments convergence, is developing an update to white paper, Reference Enterprise Architecture for Transit Open Payment System, and is developing the statement of work for a new project on mobile ticketing and Near Field Communications (NFC).

Other Council Information
- All councils will be electing their 2017-2018 steering committees and officers by the end of this year. If you’re interested in taking a leadership position in the councils, please contact Cathy Medich.
- If you are interested in forming or participating in an Alliance council, contact Cathy Medich.

Alliance Members: Participation in all current councils is open to any Smart Card Alliance member who wishes to contribute to the council projects. If you are interested in forming or participating in an Alliance council, contact Cathy Medich.
Member Survey Winner

Congratulations to Jeff Fountaine of Ingenico, who won an Amazon Echo (a hands-free speaker), for participating in the recent Smart Card Alliance Member Survey. Jeff’s name was selected in a random drawing of all survey respondents.

New Certification Recipients

**CSCIP/Payments**
- Srinivasa Chigurupati, Capital One Bank
- Ximena Azcuy, Discover Financial Services*
- Leigh Garner, Discover Financial Services*
- Tracey Harrington, Discover Financial Services*
- Kenny Lage, Discover Financial Services*
- Krishna Mohan, Discover Financial Services*
- Iniyan Seerangapattan Sampath, Discover Financial Services*
- Itzamna Vilchis, Discover Financial Services*
- Daniel Willis, Discover Financial Services*
- Vijay Kumar Soni, Discover Financial Services*
- Honore Afene, UL*
- Chin-Hwang Chen, UL*
- Jaison Jacob, UL*
- Dinesh Babu Kolavennu, UL*
- Margaret Liu, UL*
- Frank Luo, UL*
- Naisha Mack, UL
- Asim Patra, UL*
- Manish Raje, UL*
- Felipe Riso Bezerra Leite, UL*
- Bart van Hoek, UL*

**CSCIP/Government**
- Frank Luo, UL
- John Aranha, X Tec Incorporated*
- Jeffrey Poulson, X Tec Incorporated*

**CSEIP Recipients**
- Sean Hernandez, Identiv
- Larry Lillard, RFI Enterprise, Inc.
- Rodney Rourk, Department of the Navy, Space and Naval Warfare Systems Center Atlantic

* Denotes corporate exam

For more information, visit our website at [www.smartcardalliance.org](http://www.smartcardalliance.org). Members can also access white papers, educational resources and other content.

About Smart Card Talk

Smart Card Talk is the monthly e-newsletter published by the Smart Card Alliance to report on industry news, information and events and to provide highlights of Alliance activities and membership.

About the Smart Card Alliance

The Smart Card Alliance is a not-for-profit, multi-industry association working to stimulate the understanding, adoption, use and widespread application of smart card technology.