

Harland Clarke Webcast EMV[®] Turns One – What's Ahead?

Presenter: Renee Jones, Cards Product Manager, Harland Clarke
Presenter: Troy Bernard, Director, Strategic Marketing & Products, CPI Card Group
Presenter: Tony McGee, Director, Customer Care and Personalized Solutions, CPI Card Group

Announcer: Good day, and welcome to Harland Clarke's webinar. Today's topic is EMV Turns 1 – What's Ahead. This webinar is being recorded and will be provided to you along with the presentation recording and deck within a few days. If you have questions, please use the Chat box located in the webinar control panel. Your questions are private and are only seen by the presenters. I will now turn the call over to Renee Jones, Cards Product Manager for Harland Clarke. Renee, you have the call.

Renee:Good afternoon, everyone. Thank you for joining me for today's webcast. Today
I have with me two industry experts. Troy Bernard, Director of Strategic
Marketing and Products for the CPI Card Group. Troy comes with us with over
17 years of experience in payment, working with the payment associations in
developing contactless and EMV payment products. Also with me today is Tony
McGee who is Director of Customer Care for CPI Card's Group Personalization
Solutions. Tony has over ten years' experience working with the card
associations and prepaid card processing, fulfillment, business, and other
technical positions. Gentlemen, thank you for joining me today.

We're going to go ahead and get started, and move into, as you see, today's agenda. What we're going to cover is a year in review, which are the activities and milestones that have occurred over the past year with EMV, what the landscape looks like now, the overall migration performance, what's next on the horizon, and specific trends institutions should be thinking about and taking action on. Finally, we're going to open the floor for questions. Let's get started on the page. EMV migration, it's been one turbulent and exciting year at the same time. This time, in October 2015, the liability shift deadline took off with a start. Now institutions were really looking at how they were going to migrate their debit and credit card portfolios. September of 2016, looking forward, we're the world's largest chip market. Let's go through just a little bit of where we stand, and here's a high-level report card of where EMV is one year later.

Chip card issuance, there are over 700 million chip-enabled cards in circulation, and that's debit and credit. From a fraud perspective, issuers and retailers are saying counterfeit card fraud decreased by an average of 47%. As it stands today in terms of merchant readiness and acceptance, there is nearly 1.5



| | million chip-enabled merchant terminals, and in terms of the chip payment volume, it's about 34.7 billion in transactions. Gentlemen, as we look at this, how would you rate that? Troy, we're going to start with you first. |
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| Troy: | Okay. Thank you, Renee. I think you make an excellent point when we look at the sheer size of the US payments market, and how far that we've come. A lot has been written and said about the bumps in the road with the EMV migration. When you look at that out of nearly a billion cards that are in the US market and 700 million of have been issued in just a year's time, I think that's tremendous progress. Too, to be able to take out nearly 50% of counterfeit card fraud in one year is terrific progress too. |
| | With that said, there still is a good bit of work that needs to be done at the point of sale to get more merchants converted to EMV technology. I think that we will see throughout the rest of this year there's a push to get merchants ready and ready for this season holiday shopping, and then you'll see another wave by the end of 2017. The vast majority of merchants will be converted over. It is just a whole line of infrastructure. It is a massive IT project, to say the least, and I think to accomplish what we've accomplished in the last 12 months is a tremendous feat. |
| Renee: | You're exactly right. Tony, do you have any thoughts about how far we've progressed from last year? |
| Tony: | Yeah. I'd agreed. I mean, being somebody who's been part of the industry for a while now and I'm sure that everybody that's on the phone has been there and done that, I think the – if you think about the movement that we're faced with, we didn't have really in our lifetimes a conversion or a change like this, right? I think a lot of us were talking a couple years prior. We're going to push it back. We're going to continue to push it back because of just some trepidation around all that this encompasses, but I think, if you look a year later, it's almost like, wow, we did that. You're really seeing I think some comfortability coming along with that, and so folks starting to really look at it as just a new element of day-to-day transaction processing. It's amazing that, in just a short year's time, you look in anybody's wallet. Everybody's got a chip card now. Everybody's familiar with it. |
| | Even those that are not in our industry, they at least have some familiarity with what it's intended to do. I think that just speaks volumes to how the last year has gone and where we're at. That's just how I look at it. Just an exciting time in our industry to have that level of conversion and to really be a year later |

already, and say, geez, here's where we're at, right?



| Renee: | Right. I'm seeing in some places that while we've made so many accomplishments and made such groundwork that there are still institutions that may not have migrated their portfolios. Troy, do you see that same type of assessment in the marketplace? |
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| Troy: | I do. If we look at the numbers that you stated, Renee, that we're probably somewhere around 70% complete or so with the U.S. migration, so that still leaves about 30% of cards to be converted. Of those 30, the majority of those would be debit cards. Some of the reasons why debit lags have been highly publicized too. I think to sum it up it was let's say the specifications for debit to ensure Durbin compliant routing took a bit longer in the U.S., and the credit specs were ready to go. I think that's a bit of the state of the union and perhaps why an issuer may hesitate in moving to EMV. One of them would be the bumps in the road that we've been talking about so far today. What is that user or customer experience going to be at the point of sale when that EMV card is presented? |
| | Then the other thing is EMV is new to most financial institutions in the U.S., and perhaps the banks may not know where to start. I think those are two things in my mind that is for the remaining issuers that are left to convert to EMV. It might be some of the top reasons that exist for waiting and seeing. |
| Renee: | Okay. We're going to move forward with our first poll question to see where our participants are with EMV, and so if everyone could, they can select where they are with migrating their card portfolio to chip. Your organization, are you complete with it? Is it in progress, or are you still thinking about it? We'll give you a moment. Wow. A lot of people have their migrations in process. I think that's really good because that migration could mean – it could be a strategy of just doing the mass distribution of their new card, or they could be simply doing it at expiration. |
| | What we're going to look at, we have 10% of our participants still thinking about it, and let's focus on that 10%. For those FI's who haven't begun their migration chip, Tony, I'm going to ask you this question. What do you think are some of the short-term and long-term implications that they are moving forward with transitioning their portfolios now? |
| Tony: | One of the things that I've thought about a lot is just the overall recognition of the brand. I think what we're starting to get now is – I mentioned it earlier. You've got people outside of our industry now that are looking at their cards, and saying why doesn't it have a chip in the card, right? Why doesn't it have |



| | these features that I've seen in the news, that I've seen other talk about? When I am at the point of sale, why do I not have to insert this card or that sort of a thing? I think maybe there's some industry – or not industry perspectives but cardholder perspectives starting to gain traction about what should be a major component of the card? Security features, counterfeit combatting, features about chip cards, it's on their minds, and so I think that that's something that they really need to be thinking about. If you haven't gone down that path, it's starting to become one of those things where chip is the mainstream now, and it's important, from my perspective, to be thinking about it if you're not. |
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| Renee: | That's a very good point. From, really, an implementation, we saw institutions scrambling with where to start with EMV. There is a collaboration that takes place between the EFT that merged. It could be either processing vendors or core vendors. Troy, where should an FI who hasn't been thinking about transitioning their card portfolio, where do you begin? |
| Troy: | That's a good question and a tough question, Renee. I guess, if I had to sum it up into one word, I would say start with education because EMV is widespread. It's all encompassing, and it touches every aspect of your organization when you start to rollout from card issuance to customer service and then so on and so forth. I have found over the years as I have talked to FI's that are beginning their EMV rollout, in order to fully understand how to start those projects, where to start, the decisions to make, and how to communicate the changes that EMV brings to their cardholders, that it really does start with education and working with trusted partners that have gone through EMV migrations in the past and can bring those learnings and that education to the FI that is just starting out with EMV. |
| Renee: | That's a very good answer. There's something to be said about letting others lead and learning from their challenges and successes. We're just going to move to the next slide, and review what they are. We're going to talk about real chip card performance and what the challenges and successes are. Troy, I'm going to let you walk through, and just highlight and educate for our audience today what some of those challenges were. Then, Tony, you'll be looking at some of the successes, which is a counterbalance to the challenges we've overcome during the EMV migration. Troy, I'll let you lead. |
| Troy: | Okay. Sure, Renee. Yes. Looking at the challenges on the slide, I think that we could take and categorize or put four of the five bullets in the same category, whether it be chip and signature versus PIN, dual interface considerations, customer experience at the POS, and merchant's ability to get certified. It all wraps up, to me, around what is that customer experience, right? When I |

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encounter that point of sale and put the EMV terminal – or put the EMV card into the terminal, will the terminal ask me to sign? With EMV as it's been launched around the world is typically completed or the cardholder's verified using a PIN. What am I going to experience as customer at that point of sale now that I have an EMV card in hand?

Then if I jump down a bullet to dual interface, the question is now if I add a contactless antenna to this card too, it adds one more choice for me to make as a consumer and one more thing to communicate as an FI to the cardholder who will probably use the card and the clerk at the merchant store perhaps to explain to me too, right? That complicates the situation in using the card. Then the merchant's ability to get certified, you may see a terminal at the point of sale, and it has a chip card slot. You go to use it, but because of the backlog that some of the merchants are experiencing with their acquirers and acquirer processors, that the chip card terminal isn't turned on because they haven't been able to get certified yet. All of those things all go in a big bucket in my mind of some potential issues that the cardholders are experiencing at the point of sale in year one here of the EMV rollout. I think we'll talk about it in the next column that it's not so dire and not so bleak, but to put things in perspective of where we are today, those are indeed some challenges that we have.

I think the last one that they didn't cover is the fraud potential on chip-enabled cards. It seems like in every new chip market there has to be a story or two that gets released about that the chips cards won't do everything that they're acclaimed to do, and that somebody proclaims that they have found a way to circumvent the EMV technology and things like that. In my opinion and I think most of the financial payments community, is that when you really look at those stories, right, and then what's behind those and what they're claiming, is they're not really problems with the chip technology. It's ways of exploiting the old magstripe technology that's existed or perhaps compromising a terminal and being able to do something with one transaction. The claims that EMV is flawed and that there have been problems just is a distraction and something else that we have to explain and think through as we're doing the EMV migration. In my ten years of doing chip migrations, we have not found any fatal flaws with EMV. As we talked about earlier, right, it's a great way to take fraud out of the payment system, and take a big step forward there. That's how I would categorize the challenges that we have seen, Renee, and I'll turn it back over to you.

Thank you. Tony, you have an easier job than Troy had so just walking through some of successes that have taken place.

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Renee:



Tony: Yeah. I sure do.

Renee: What's made the conversion easier for FI's?

Tony: Yeah, definitely an easier aspect here. I think the key word here on this slide and I'm not going in order here I promise is the collaboration piece. The financial institutions, payment networks, merchants, etc., cardholders, card personalizers have all really collaborated well. I myself have not directly participated in a lot of those collaboration environments in the industry itself, but I know Troy has and our company has quite a bit. A lot of the decisions have been made about how we go about this together as an industry, and so I think that that's been a major success. Certainly, there's bumps along that road as always. Getting everybody together and talking it out and figuring out who's going to support what, and how they're going to support it, and when was very important. I think that that movement in the industry helped a lot. Just given the complexity of our industry in the U.S., it goes without saying that it is far more complex in many ways than any other implementation across the globe so very important to have that level of interaction.

If I skip down a little bit, the timing at the point of sale. I think everybody recognized and it was in the news earlier on that the slower process when it comes to paying with a chip card is definitely something that was very apparent to consumers as well as merchants. A lot of movement has been pushed ahead with updates to terminal equipment, and that sort of thing, to really focus on improving that experience so that we're not slowing that process down, which we know is very important from a retailer perspective. I think the industry gets that and certainly is continuing to push on that. Last but not least, you can see on the screen here, but certainly the improved payment experience abroad.

I think that was a major challenge for US cardholders, especially those that traveled abroad, and had the need to use chip cards elsewhere. Don't take that for granted. I mean the rest of the globe, well, not the rest of the globe, but a good majority of the rest of the globe around us have been on some sort of chip device, or payment device, or smart payment device for many years.

As you read some of the articles and comments that were out there as we were working through this migration, internationally, it was a well, it's about time thing that was said out there. I think that having that improved payment experience abroad has been just a major improvement for us, and a success across our industry.



Renee:

Thank you, and that's a really good summary. Apparently, EMV, it has been a long road to get where we're at today. I think as we can see from the bullets that we didn't cover all of the accomplishments and challenges. I think there were a few that our participants may know that's out there that we're not covering because we'd probably be here longer than an hour, but those are some of the major things that have happened.

Really, the successes are outweighing the challenges. I think, now, FIs can now breathe a sigh of relief for those who have completed their migration, and probably for those who are also in process. Now they have to go back and begin exploring, what's on the radar for our portfolios today. Just to keep everyone awake, we want to find out where you are, what are you thinking about now that you're either finished your portfolio migration, or in the middle of it. We're going to get ready for another poll question, and this poll question really centers around what major initiatives are you thinking about for your debit and credit card portfolios now that you're either passed the EMV migration, or if you're close to ending it, or in the middle of it, what are your next steps now that you can breathe a sigh of relief that you're finished your conversion. You can pick more than one of those that are out there.

Let's walk through this a little bit. Not many people, if any, at all are thinking about dual interface. Mobile banking is definitely there. Mobile payments is a big deal with Apple Pay, Samsung, and Google Wallet. There are a significant number of people thinking about instant issuance. Then there's the other bucket.

Troy, I'm going to push this over to you. As we talk about these different things, mobile banking is definitely important. I think where we are making accomplishments in counterfeit fraud, institutions are looking at mobile banking specifically in the realm to help their cardholders really understand and know what's going on with their transactions, and to keep their transaction experience top of mind. Then we see mobile payments. That's a really huge number of people who are interested in moving into that space. A lot of institutions are become enabled with Apple Pay, Samsung Pay, or Google Wallet. I see an opportunity with instant issuance as well. Out of these different initiatives, what would you consider the low hanging fruit for an institution to drive non-interest income for their portfolios?

Troy:Sure, I can definitely see the appeal of the mobile payments in the different
wallets that are out there from being involved in new technologies, and
perhaps trying to garner new transactions in a low ticket and everyday spend
categories. If I look at, I think, back at the past of some of my issuing

experience, one of the things that really impacts card volume is if a card holder, if their account is compromised, or they lose their card and it takes several days to get that card replaced.

In the meantime, that card goes out of the wallet, and the next one in the wallet pops up. Sometimes, the spend does not come back to your card. Inertia takes over, and the next one pops up. If we're really talking about making sure that the market dollars that you've invested as an FI aren't lost due to something that's largely out of your hands, like a lost card or a breached card, being able to put that card back into the customer's hands as soon as possible, and not disrupt that everyday habit that they have of using the card, I've found in the past is a pretty powerful thing.

While there may be some transactions that are garnered in a mobile wallet, I think largely, it will just be converting transactions that you get on the card over to a different channel. I think if you really want to protect all those marketing dollars spent acquiring a customer, and building that relationship, and giving rewards, and giving great service, one doesn't want that disrupted by, again, something that may be out of your control such as having that card lost and then losing that customer to someone else.

Renee: Thank you, that's a really good answer. We want to move forward, and we're going to go backwards a little bit and just see what's ahead for EMV. As we move to this next slide, I'm just going to quickly walk through the timeline for the EMV deliverables. October of last year, there was a liability shift deadline. This year, we've come forward and have reached almost a near completion in the marketplace, being a chip enabled market, but there were still some other mandates that needed to be completed that are capturing the attention of issuers. I didn't want that go neglected.

That's the MasterCard ATM liability shift deadline, that was due as of this month in 2016. Next year, Visa will have their ATM liability shift deadline. Also, there will be the fuel dispensers, or the gas pumps; their liability shift for those machines will be converted over. It appears as though a lot of the heavy lifting has been done. 00:28:04 these deliverables that we're working on now, and a lot of issuers, and the fuel merchants are working to getting everything complete by 2015. My question for you, Tony, is who are the key players for these mandates for October 2016 with the ATM liability shift? Let's spend some time there. What's the impact, good or bad, if the mandates aren't met for the ATM liability shift?

Tony: Actually, I think, Troy, that might be a better question for you, actually, given



your experience in this area. What are your thoughts, Troy?

Troy: Sure, no, happy to field the question. I think the key impact, looking at other markets where EMV is rolled out, and how fraud has shifted and things have played out is not to be an alarmist, but once we've been talking about in the webinar of how as EMV cards are issued, and transactions start shifting at the point of sale, and we start really mitigating that counterfeit card fraud, it starts going to other places.

One channel would be card not present and online transactions. The other place that we've seen it go to in other markets is to the ATM machine where you take a counterfeit mag-stripe card, and through social engineering and other phishing activities you find the pin, and losses at the ATM start going up considerably. By issuing an EMV card, you are protecting yourself as a financial institution from the chargebacks.

Just like at the point of sale, if you've been pulled into the technology and the ATM network has not, you've protected yourself. Then that fraud chargeback is shifted over to the ATM operator. Two things is by issuing the card you protect yourself by both sides of the ecosystem upgrading that fraud, that counterfeit card fraud gets mitigated. It's just as I've said. It's things that we've seen in other markets, and it's hard to tackle everything all at once, but we do highly encourage looking at the ATMs and Nexis because it does tend to be the next opportunity of fraud.

Tommy: I know I'm excited to get out there. I know I'm excited every time I see a new – a brand-new environment, like a brand-new ATM or brand-new fuel dispenser. I'm always looking kind of around trying to figure out like, okay what are – it's kind of starting to become that time where we're starting to shift into that period.

Renee: Exactly, and I think that's a very good point and I agree with you, Tommy. I get really excited when I start seeing the new ATM machines. With the fuel dispensers, I'm just really hoping that they won't be able to kind of have those manufacturer overlays where they can steal your card number. I totally agree with you.

> Let's move forward and talk about the trends payment. This is kind of a recap from our poll. In terms of financial institutions as we saw from the poll, they really are looking at the mobile payment applications, such as Apple Pay, and Samsung Pay, and Google, and Contactless payments they aren't really interested. It almost likes seems like it's a hop, skip from contactless to mobile



payment, but instant issuance kind of stays on the radar. Tony and Renee make really good points about instant issuance and what makes it desirable and easier for an institution to implement. What we're going to do is move into the next page, and Tommy, I'm going to let you go first about talking about the benefits of an instant issuance solution.

Tony: Yeah, so it goes without saying a lot of research has been put into generational differences. You know the old saying, instant gratification is pretty important. Having the ability to instantly deliver a card versus seven to ten business days or potentially longer, depending on where you're at in the world, is something that is very important to new and upcoming generations that has never been seen before. Having options around instant issuance, having that level of convenience is just an up and coming component of our lifestyle. We want things now, and that's why instant issuance has really started to rise to the top.

The other thing, too, is this proactive versus reactive strategy. We've seen clients of ours that have utilized instant issuance as a way to combat, or not combat, but to recover quicker from potential – I'm sorry, issues around data breaches. I might have a compromise that affects maybe it's a handful of cards, or maybe it's an entire portfolio of cards. Having an instant issuance option can ease the pain when it comes to maybe that cardholder that just cannot be without it for any period of time. I think we've all seen those particular types of environments where that's needed.

Instant issuance really took off once Mastercard and VISA really focused on allowing non-embossed cards. That flat print card is now just a normal component of everyday business now, both centrally issued and instant issuance. That really opened the door for that to take place and make it a little bit more cost-conscience, if you will.

Continuing to see improvements around flat print and going away from that embossing in standard traditional embossing elements, and that flat print technology has enabled us to reduce the size of the printers in the small desktop printers market. If you have an embossing – a desktop piece of equipment that's an embosser as well, there's a lot of mechanical parts that go into that. Being able to just simply flat print and the improvements that have taken place with that really have allowed some additional improvements to that small desktop printer, not only in its size but also its cost and its ability to fit different market places that are out there.

Renee: That sounds really good. We're going to move forward into the next line with Card@Once Highlights. Tony?

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Tony:

Yeah, so, Card@Once. Obviously, that's a major piece of our business today. What I really want to highlight here is what differentiates Card@Once, the SaaS model that differentiates the instant issuance. We are providing a software as a service. It's a patented solution. It is one-of-a-kind in our industry. It's something that you should be really looking at as an option. The SaaS model allows us to really deliver a complete product to you that is hosted by our business upon delivery of that printer. Simplistic, we provide an implementation, we provide a full implementation project plan, we are involved in the setup, we're involved in the training, and we're constantly supporting the product because we own it end-to-end and can manage it end-to-,end. At the end of the day, this particular printer, the Card@Once printer, requires only power and an internet connection so it's easy to operate. There are no systems to manage because again, we're delivering software as a service, and we're handling the software elements of that printer beginning to end.

Reliable, does utilize proven print technology. We continue to improve upon that particular element and are continuing to look at future generations of this print technology that allows for continued enhancements that have been asked for by our clients. Overall, the printer itself is low maintenance. You're really only buying particular consumables around cleaning kits and ribbons that go along with the printer. As long as you're maintaining and staying up to par with what's required for maintenance of that printer, the maintenance itself is very low. I think on the last slide, I mentioned that we're really getting down in the size of these printers based on the flat print technologies as opposed to embossing, and really that small footprint makes this printer a very easy choice when it comes to being able to fit into tight spaces or maybe right on a desk somewhere. That's really what it's designed for.

Not to mention, last but not least, really that's security features. PCI certified, meets VISA, Mastercard security requirements. No financial institution keys are loaded into the Card@Once unit. That's all handled in the back end. That's just really part of that overall software as a service model that we provide.

- Amanda: Tony, that almost seems like it's such an easy opportunity to generate instant card issuance. It takes away from there being any fraud from cards being picked up in the mail. The cardholder walks away with it, but if I'm an institution, and we may not have a lot of technology resources, what's the SaaS model versus the software-for-purchase model? Could we talk about that on the next page?
- Tony:Sure, absolutely. On the screen, you've got a list of benefits and drawbacks, I
guess, or comparables, if you will, between the Card@Once and other



solutions. Obviously, I'm going to be pro Card@Once in this case, but certainly that software as a service I think is very important. I think that's what's made it very easy for our clients to implement. There's no software to purchase. There's no software to really maintain, because we're maintaining it on your behalf. The hardware is included in the printers and the PIN pads that go along with that. The communication itself is managed through a secure web service calls that are basically between us and the printers and managed by our core systems.

The program is set up by our provider, including loading secure keys. When I say by our/us, we're loading the secure keys to the system, and we are handling then from start to finish. Then maintenance and system upgrades are managed by our software as a service provider. Really, the key element here that really makes it very easy and attractive for our clients is that minimal IT and operational resources that are needed because we're taking care of that for you. Now, certainly, as I mentioned in the last slide, you have to provide power, and you have to provide an internet connection. There are some basic elements that need to be in place to operate software as a service model or Card@Once in this case, but certainly, something that is very familiar to all of us at this stage in our lives.

Flip it over to software for purchase. If you're going down that path, must purchase software, printer, and pad, PIN pads. You've got to actually go out and buy that equipment yourself. You've got to have dedicated servers and network implementations that are required in-house. You do see the need for loading all those secure components and managing all those secure components, especially around the keys that are so important when it comes to chip card issuance. Then, really, that installation and maintenance of software upgrades, that's all needing to be managed and supported locally. That can really make a difference when it comes to maybe a financial institution that doesn't really have the time or the interest in handling a lot of IT critical functions to keep their business running. I know that it's a big part of our daily lives, but at the same time, having that requirement to maintain and keep up with all these software upgrades on the software for purchase side can be daunting. That software as a service side definitely takes care of that.

Then the internal resources, again, I point out earlier. Minimal IT and operational resources are needed to support software as a service type printers. When you flip over to software for purchase, you're talking internal financial institution resources that are very important and need to stay on top of changes that occur. There's not really a right or wrong answer, but certainly, it's important that anybody going into instant issue and solutions really looks at

what is important to them, and looks at maybe the convenience of software as a service as a plus. Then counterbalance to that is software for purchase. The additional support that's required to keep that up and running on a daily basis.

Renee: It certainly seems to me that it's easier to – just depending on the size of the institution, a plug-and-play strategy versus software as a service may be easier than buying software for purchase and having to continuously manage the updates. Now we can go to the next slide where we can talk about the integration. I'll let you lead with that, but my assumption is that the integration with a Card@Once solution would be less cumbersome than if we were looking at a software for purchase.

Tony:Absolutely. I sound like a broken record with the easiness piece but, really, the
experience that we have integrating with processors, cores, and financial
institutions, very important and something that we have a lot of experience
with doing. It just makes it easy. The environments and the way we're set up is
configured to make it easy. The experience that we've gained over the years
with this instant issue and solution really makes it – I hate to say a plug – not
hate to say it, but definitely makes a plug-and -play for that communication
between the device and CPI.

Again, I mentioned earlier on the last slide about the cost of integrating versus non-integration. Just having it all handled behind the scenes for you is very important. You have some challenges there that, if you're going down a path of nonintegrated solution, could require many additional resources or support that otherwise is not there. Above and beyond that, our integrations, we offer single sign-on options, PIN selection, edge-to-edge image gallery options that are a part of the overall integration in allowing a user to input their own PINs. Select from a gallery of images, as I mentioned, from a website, and simply select a design should you choose to do that. Above and beyond maybe the standard designs that are part of the FI's logo and package, if you will.

Renee: That's a lot that's involved in that. Another piece of that process really goes into the client support, which I believe you spoke about it before, but we'll go to the next page to just highlight what the client support looks like during an integration.

Tony:Yeah. Our focus is to ensure that any user of Card@Once is fully trained as
administrators. Prior to any implementation that is completed, we will conduct
a full training, and ongoing training and installation is available via remote or
on-site personnel. We can support that. We will support training on how to
order more cards for stock replenishment, and just general service procedures.



That's very important. It is all handled internally here. We are a one-stop shop. Certainly there's some things that the users of the systems need to know and have to have familiarity with, so we offer that training to make sure that there's familiarity.

Ongoing Card@Once Help Desk support, all inquiries are expected to be answered within one hour of receipt. Monday through Friday, 6 a.m. to 6 p.m. Central Standard Time are normal operating hours for that Help Desk and, if you look at Saturday, from 8:30 to 1:30 as well. Then on call support should there be an emergency after hours is supported 24/7 and is there for you. I've seen Sundays. I've seen Saturdays. I've seen Friday nights, late in the evening, where we've been able to react and support from a Help Desk perspective to get things up and running.

Rapid Replacement Program, if a printer is under warranty and has been recently shipped and we deem that printer is damaged and not functional, we are always offering a Rapid Replacement Program that allows for a new printer to be shipped to you next day delivery and if a resolution cannot be provided over the phone with one hour. Basically, what we'll always attempt to do is try to fix the problem. If we cannot and we're in a warranty period, and we've got that in place, Rapid Replacement will ship a new printer right out to you and ask for that other printer back so that we can take a look at it, and see where we went wrong. I think that's an important peace of mind for our clients to have that ability to know that, if anything goes wrong, we will replace the printer, and get you a new one right away.

- Renee: Okay. That's really awesome when it comes to client support. As we move into the next page, we wanted to share a case study because proof is really, as they say, in the pudding with the output of the difference that instant issuance makes for an FI or their cardholders and what it means to be top of wallet. Tony, I'll let you walk through the background a little bit and the results to show really what the benefits are, and a financial institution being competitive in giving their cardholders an instant gratification has really become commonplace in today's market.
- Tony:I think it goes without saying. The background on this is really a two point –
well, a couple billion dollar financial institution headquartered in Indiana.
We've got a lot of different case studies that are out there, of course, but the
initial pilot was conducted in four branch locations during a three month
period. You can see on your screen there. As of right now, the client has
implemented nearly all of their branches with Card@Once. It's a great case
study for us because what they were able to provide us with not only with the

staff but also full testimonials is, really, their activation rates increased dramatically. You see on your screen there 15%, so that's a significant number all totaled.

Where they also saw a big lift was in the fact that I handed you a card just now, and I think people are still wowed by that experience. Just getting a card put right in their hands, right in branch. What they saw was almost a 50% increase in cards used within – 50% of those cards were used within 8 hours. If you're in the branch and you're getting a card that's delivered instantly to your hands, you're more inclined to use that card immediately. Just based on I guess what I'd call the wow factor. The average usage time being 93 minutes compared to 10 days for non-instant issuance cards. I think reducing the costs and simply lowering, really, the annual shipping cost – if you can instantly issue a card right in branch, you don't need to centrally issue a card. That can reduce costs on the back end as well. This particular case study, I'm familiar with this particular business. They've done a great job for us, and have been a great testimony to what Card@Once can do for any financial institution.

- Renee: Thank you, Tony, and thank you, Troy. What we're going to do now is move into the Q&A, and we have received a couple of questions on the call. Troy and Tony, I'm going to let you decide who's going to answer this question. One of the questions we received is referring to EMV. Can consumers expect the speed of the actual POS transaction to improve? Customers are commenting that the time to make a purchase has increased due to this maturity progress involving EMV. I think this goes back to just the point of sale experience among consumers who have been using the chip card. Who would like to talk about that?
- Troy: I'll take that, Renee. This is Troy. Yes. I feel very confident, and we are already seeing improvement at the point of sale as far as transaction time. I don't think I'm telling stories out of school in telling this story. Walmart, in public forums, talks quite a bit about their experience, and how they've been able to take an EMV transaction and complete it within one second longer than it took for a swipe transaction to happen. Now, it did take a lot of work with an IT team, and training their clerks, and working with customers, and things like this to optimize the props at the point of sale, optimized their technology. Even without the new products that are being released by the card brands called Quick Chip, and M/Chip Fast, and all those things, just taking standard EMV, working with their acquirers, working on their own technology, that they can optimize that checkout experience. Get that pretty much right in line where magstripe is.

| | It just takes time. It takes experience. I'm confident just based on some of the merchants that have moved the needle that the rest of the merchant community will get there too. |
|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Renee: | Okay. I totally agree with you there. We have just one more question, and it does fall back into the Card@Once issuance solution. A participant wanted to know. Can you issue an EMV chip-enabled card from Card@Once? |
| Tony: | Yes. You can. Actually, that's where we see most of the progress being made right now is we're doing a lot of convergence for Card@Once. It's an issuance from magstripe to chip, existing Card@Once clients. The majority of our installations are actually chip enabled. |
| Renee: | Thank you. That's all the questions that we had for today, and we're at the top of the 2 o'clock hour. I wanted to thank everyone for joining us on this call today. You will be able to get access to this webcast in a couple of days, and we follow up with an email. Thank you again, and enjoy your afternoon. |
| Tony: | Thank you, everyone. |