

Clear2Pay - A Talk About Testing Mobile Payments



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The SMART Sense: To kick off, for our readers who are not familiar with your company, could you maybe provide a few words on Clear2Pay?

Gerd: Our company is an innovative payments technology company that is focused on delivering globally applicable solutions for secure, timely and streamlined payments processing. We support global financial organizations in meeting their payment goals through a pure SOA-based Open Payment Framework. Clear2Pay is a Belgian headquartered company established in 2001 and currently employs more than 1,100 people.

In addition, we deliver a number of value-added technology solutions such as integrated testing solutions. These test solutions enable the validation of electronic transactional systems such as payment hubs, cards, ATMs, payment acceptance devices, acquiring and issuing hosts. Clearly, our solutions can be deployed in a large variety of environments. Our flexible, automated test solutions enable to gain time and offer interoperable, quality products. Clear2Pay's test services include trainings, consultancy, conformance testing, certification and customisation.

The recent acquisitions (2011) of testing outfits Lexcel (US) and Level Four (UK) marks a milestone and enables our company to offer an exclusive range of test solutions for the payment, transport and mobile industry.

The SMART Sense: With the outlook of a booming mobile payments market, there must surely be an impact on regulatory level. How do you see things at Clear2Pay?

Gerd: The mobile payment market is indeed looking promising. To illustrate, a recent Juniper research predicts that mobile payments for physical goods is to exceed 170 billion dollars by 2015, almost doubling the figures forecasted for 2011 by Gartner, 86 billion dollars.

At Clear2Pay we are strong believers of mobile application catalyst technologies, such as Near Field Communication, and we work with true testing passion to support our customers in delivering the related interoperable and trusted solutions to the market. Interoperability and trust are the magic words, they are key factors for a global commercial uptake. Whilst many expect consumers to simply change their behaviour and pull out a phone instead of cash or a payment card, just like that... It's not going to be an easy win: we need to persuade them and gain their unconditional belief in the technology. For example, recent surveys (e.g. Accenture and Monitise) demonstrate that security issues would avert large percentages of consumers from adopting a mobile wallet.

Moreover, the overall consent is that - further to the apparent qualitative, standardized products - a set of international rules, or at least guidelines, is essential. Clearly, with so many elements involved - converging vertical markets, hardware compatibility issues, conflicting models, the lack of coordination between stakeholders, etc. make things a little more complicated. Logically, the industry needs to make sure that testing and approval processes are put in place to ensure conformance to the ruling specifications.

If we look at today's situation, the many vertical markets - like transport, to name one - have their own carriers of which some are already recognized applications using contactless technologies. And there's the added challenge of building electronic equivalents of the paper coupons and the loyalty cards. Soon, these different worlds will meet in one NFC device, and there will be a strong need for common rules. Testing the technology components in a well-controlled certification environment is key. Only then, one can think about realizing applications taking advantage of the interoperability and interchangeability of components.

The SMART Sense: Clearly, the worldwide adoption of smart payments is in a large extent the result of the stringent EMVCo rules that have successfully convinced the consumer. Will mobile payments need / follow a similar approach?

Gerd: Markets are converging. In the payment world, the consumer's confidence and unconditional trust in the technology was facilitated by EMVCo, the smart payment standardization body, and its members. This organization imposed international rules to which card payments components should comply, thus enabling conformity and global interoperability. This is ensured by a rigid certification regime for the different components in the system such as cards and devices.

In today's mobile sphere, the NFC Forum is working on a common set of open NFC standards. Even while there are differentiating elements involved at the different technology layers (digital, analogue) there are obviously numerous overlaps with the standards ruling the payment world. Whilst both markets still have their individual requirements, it is absolutely logical that organizations with such large overlay areas cooperate for the benefit of the industry and its consumers. Evidently, the NFC Forum specifications reflect the requirements from the payment space.

In 2010, the NFC Forum launched its own Certification Program: an initiative allowing providers to verify their NFC solutions by authorized laboratories where they are tested for conformance against the published specifications. It wouldn't be surprising or unnatural if both programs would "converge" as well within the years to come. However, apart from the technical challenges, it's clear that other issues determine how this will evolve. I'm thinking, for instance, about the huge differences in product lifespan and frequent market launches of new models between typical card payment devices like POS terminals and mobile consumer electronics.

Besides the NFC Forum and EMVCo collaborations, there are relationships being established with EMVCo, the GSM Association (GSMA), the NFC Forum, Smart Card Alliance and GlobalPlatform among others... all with the aim to create an ecosystem for NFC technology based applications covering markets like payment, transport and beyond.

The SMART Sense: *Having explained that, what is your relation with industry regulators such as EMVCo and the NFC Forum for example?*

Gerd: *As a developer of these test solutions, we collaborate closely with EMVCo and implement the industry requirements in our card and terminal test tools. Historically, our cooperation started with solutions for contact technology, which naturally evolved into tools for contactless applications as well. With all these test tools, we support both manufacturers and certification laboratories.*

However, we also contribute on a very different scale. On demand of EMVCo, we also developed a test solution that actually qualifies other vendor's test solutions, enabling a straightforward qualification of test tools: the so-called "Tool of Tools". A Contact Terminal Qualification Tool was already delivered to EMVCo in 2009, and following a new demand we recently delivered a fitting solution for contactless terminals (EntryPoint). We are delighted to support both EMVCo and the testing community, allowing the industry to gain time and thus money.

We are also an associate member of the NFC Forum and implicitly an active contributor in the advancement of the technology. I am, for example, the Chairman of the NFC Forum's Plugfest Task Force, the group focusing on organizing interoperability testing events. During these events NFC Forum members can test their devices against each other to verify interoperability.

In 2009, Clear2Pay was selected as a partner to develop an NFC Forum's digital conformance test tool. At this moment, our test solution is one of the two tools that is qualified by NFC Forum for use in accredited test laboratories. In this way, we support the NFC Forum certification regime. Clear2Pay is also member of industry bodies such as GCF, PTCRB and GlobalPlatform.

The SMART Sense: *What exactly is the role of GlobalPlatform, the organisation Clear2Pay recently joined in mobile payments?*

Gerd: *GlobalPlatform is all about facilitating deployment and management of embedded applications on chip technology. One of the first uses that comes to my mind is the deployment and management of a card payment application on the UICC. However, this example is just a start, since GlobalPlatform foresees in multiple applications, each with their own individual owner and related rights. Obviously, these applications aren't necessarily payment-related but can be transport ticketing oriented, for example.*

It's clear that if we want to use the full potential of NFC-enabled devices, we need this secure way of managing the lifecycle of the NFC applications. Here as well, via a certification regime GlobalPlatform will assure compliance. This way, another jigsaw piece is added to the big puzzle called mobile payment.

The SMART Sense: *Do you notice the ongoing convergence of markets and how do you adapt your offering to this phenomenon?*

Gerd: *If we summarize what we talked about earlier, it's clear that companies aspiring to build interoperable solutions, need to take into account more and more technologies that are often very new to them. Like, for instance, mobile handset manufacturers looking into payment-related specifications.*

From a testing point of view, being a provider for the payment, transport and mobile industry, we see that "vertical" companies now require test tools that they haven't considered using before. We are currently in the process of driving our integrated testing approach even further and are developing a powerful platform to cover the unification needs of the market.

The SMART Sense: *Tell us about your company's mission in the advancement of mobile payments?*

Gerd: *Our mission is twofold. Firstly, supporting the different stakeholders in setting up the technological foundation for an environment of interoperable devices. We believe that certification programs based on conformance testing are key here. It's clear that we will continue to play an important role providing test tools to manufacturers and certification laboratories.*

Secondly, going back to the analogy of the puzzle and the pieces, it's clear that it takes more than the technology building blocks alone to make mobile payment work. Obviously, testing doesn't stop here. With our business logic and application level testing know-how, we also follow-up on the latest evolutions at this level.

A good example is the mobile application test tool we demonstrated at the Cartes show in Paris in November. In a nutshell, this automated test tool allows testing a mobile payment application, both the mobile application's user interface and the Over-the-Air communication with the mobile issuer host. It's clear that the scope here is much closer to "real life" end-user use cases, combining the different technological building blocks.



Clear2Pay in Cartes & ID 2011, Paris, France

The SMART Sense: What is the ambition of the testing department within Clear2Pay?

Gerd: *Through our experience, testing is becoming more and more important. The right test solution and appropriate testing are critical parts of a successful implementation which to this date tends to be a highly time-, cost- and capital-consuming activity, prone to human error.*

Within our company, originally a payment technology provider, the testing department is evolving towards a strategic business unit. Following the recent acquisitions of testing outfits Lexcel (US) and Level Four (UK), the integration of all testing solutions into one compelling Open Test practice is now well underway. We are today laying the foundations of one of the most powerful, integrated testing platforms with true global reach. Our customers will clearly benefit from the expertise of a team that is utmost dedicated to testing.

The SMART Sense: How bright will the future of NFC be?

Gerd: *The mobile world is interesting yet very complex. With so many major companies working on NFC-related pilot projects worldwide, I guess we must be on the verge of the final breakthrough. Looking at the forecasts of analysts and researchers, the outlook is impressive. It is our task to make sure that the industry has the right tools to enable quality consistency, confidence in the technology and interoperable solutions.*

The SMART Sense: How was the recent CARTES & ID exhibition for Clear2Pay?

Gerd: *We have been exhibiting at the Cartes show for many years, I believe since 2002, Cartes 2011 was unmistakably the most successful edition for our company. Our booth was buzzing with activity during the 3 full days. We noticed a lot of interest in the mobile part of our test product offering, obviously an indicator of what is simmering out there in the mobile space. But equally we had a lot of visitors interested in the demonstration of the first proof of concept of OSCar, a consortium project paving the way for interoperable card payments in the SEPA area, and other payment-related solutions and services.*

But I think that it was a great event in general: things are fizzing again and I noticed genuine optimism and motivation when talking to our industry colleagues and customers. We are already looking forward to Cartes 2012.

:: To view the original interview, please visit www.TheSmartSense.com. For more information, please contact Kelly@TheSmartSense.com ::