

Smart Card & Identity News

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Our Comments

Dear Subscribers



Patsy Everett

This month there was a magnificent article in
the Guardian by Josh Klein entitled ‘Coins of
the online realm’

<http://www.guardian.co.uk/commentisfree/2010/sep/21/internet-computing>

it was particularly interesting to me because it
raised two important issues,

- The virtual economy (for swords, laser guns, and even virtual flowers)
- Identity, Authentication and Reputation in the virtual world

I have long puzzled over internet games and their virtual armaments and even more at the thoughts of buying virtual guns with real money but this is a serious economy worth some \$5bn today (this is just an estimate because nobody really knows the exact size but what everybody does agree is that it is already billions, \$1bn in South Korea alone) and still accelerating.

Now I’m not going to get hung up on the exact size of this virtual economy but if we accept it’s in the \$billions what does that suggest to you? Yes, it’s crime, where there is money the criminal will not be far away. What’s the old saying, if you’re looking for the crooks then follow the money.

Now I’ve always been bemused by how many €500 euro notes you can stuff into a cornflakes packet, apparently some €300,000 or at least that was what they found when they captured Eftychia Symeonidoy who stood outside a London apartment, casually holding the box under her arm. Part of a 13 strong money laundering gang offering a service to the UK criminal underworld they were caught by the HMRC and were duly prosecuted and jailed. The article <http://news.bbc.co.uk/1/hi/8678979.stm> goes on to describe the problems of moving money when in its £20 note form compared with the €500 note form. Just for those that can’t wait, £1million in 20 pound notes would weigh some 50 Kg while the same amount in €500 notes would only weigh about 2Kg. Apparently these guys were handling between £1million and £4 million per month.



But now the world has changed, who needs to stuff cornflake boxes when you have got virtual cash? Why not move money around in the form of Linden dollars (from ‘Second Life’) or perhaps in the form of virtual spaceships, there can be no bounds to the imagination. I would just offer a little note of caution to those thinking about a career change, don’t forget you have to get the money in and out of





the virtual system which in general is regulated (read monitored). Of course you could continue your life totally within the virtual world of 'Second Life' or similar, perhaps the crimes will no longer feel the need to move to the South of Spain; they could set it all up in their back bedroom with sun lamps.

Anyway on to the other issue of who you are in this virtual world, what is your persona? Now the interesting thing here is that on the internet in general people like to be anonymous. Visit the crime centre of the virtual world (its called eBay) and you will struggle to identify any of the players, sellers and bidders alike. The way that all these virtual environments work is on authenticated pseudonyms, you are dealing with some constructed user name or email address. When you trade you do so based on the reputation of the handle being used by the participants. Does this matter, well yes it does because your legal redress is more difficult and in the case of eBay we know that PayPal (now owned by eBay) spends most of its time (I've heard as much as 80%) resolving disputes. I can't see that people are going to start using identities on the internet so what is currently missing is an accepted way of handling reputations that can be locked to an internet persona. We have so far to go, did you know you can't leave negative feedback on eBay and of course the practiced fraudsters artificially set up a reputation before they have their fleecing spree.

I must admit I do shop on ebay but nervously and never for high value goods.

Patsy

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Events Diary

October 2010

- 3-5 18th Annual ATM, Debit & Prepaid Forum, Phoenix, AZ, USA -
<http://www.paymentsource.com/conferences/atmdebit10/>
- 4-6 Cards Latin America 2010, Coral Gables, Florida - <http://www.terrapinn.com/2010/cla/>
- 13-15 Prepaid Summit Europe 2010, Milan, Italy - <http://www.vrl-financial-news.com/cards-payments/cards-international/events/prepaid-summit-europe-2010.aspx>
- 14 CPI Commercial Cards & Payments Summit Europe 2010, London, UK -
<http://www.commercialpaymentsinternational.com/>
- 19-21 Biometrics Exhibition and Conference 2010, Westminster, London, UK -
<http://www.biometrics2010.com/>

Source: www.smartcard.co.uk/calendar/





November 2010

- 1-4 Sixth Symposium on ICAO MRTDs, Biometrics and Security Standards, Montreal, Canada
<http://www.icao.int/MRTDsymposium/2010/>
- 16-19 2010 Smart Cards in Government Conference, Washington DC -
<http://www.smartcardalliance.org/pages/activities-next-conference>
- 16-18 ID World International Congress, Milan, Italy - <http://www.idworldonline.com/>
- 23-25 Cards & Payments India 2010, New Delhi, India -
<http://www.terrapinn.com/2010/cardsindia/>

Source: www.smartcard.co.uk/calendar/

Microsoft & Facebook see Real Growth in Virtual Goods... Continued from page 1

For a March 2009 study, SnipClip aggregated revenue data for 15 different virtual worlds, social games, and non-game social apps and found that the average revenue per monthly active user per year of virtual world is \$8.04 compared to social games: \$3.65 and non-gaming social apps: \$0.37. The statistics clearly shows there are about 21.8 million active users of virtual worlds, while social games is down by 6.7 million, leading to 15.1 million active users in a year.

What are Virtual goods?

Virtual goods are non-physical, abstract objects that were popularised by the online social games community. Furcadia is an online role-playing game, where animals speak and walk upon two legs. Started in December 1996, this game can be played for free. Players contribute by purchasing 'Digos' (virtual goods) like different avatars, in-game wings, etc. to show support for the game.

Facebook Gifts was started in 2007 to send virtual gifts such as pets, bling, teddy bears, flowers, etc to friends. Facebook gifts are available for \$1.00 each, and you can also attach a message with the gift.

Digital gifts such as online birthday cards and flower bouquets are available on Facebook or in the dating sites like Zoosk and flirtomatic.com. Virtual goods takes place as micro-transactions in the form of paying usually \$1 to \$3 for buying pets, coins, avatars, and bling from the internet. But in one case, Erik Novak, a player, bought "Planet Calypso Virtual Space Station" for \$330,000 in the virtual world "Entropia Universe".

Some other online games or sites that sell virtual goods are FarmVille (where users can exchange gifts such as cherry tree, apple tree, chicken, sheep, pig, banana tree, etc among themselves); 2Moons (this online game enables buying swords, sabers, wheels, staffs, etc). The Habbo Hotel offers virtual furniture, pets, etc to its players.



Why Buy Virtual Goods?

Establish identity: Virtual goods play a significant role in establishing your identity in the digital world. In a virtual world for instance, you customise the look and appearance of your avatar indicating your social group/status.

Extra functionality & choice: Just like you buy a new dress when you want to, similarly you buy a virtual dress for your doll when you feel like. Just like while playing an online game, you want to buy extra weapons in order to win the game.



Develop new relationships: While presenting your friend a flower bouquet on his/her birthday, you add a virtual teddy bear with it. Your gesture will really stand out from the rest. Similarly, in Hot Or Not's dating site - MeetMe, many people can send a note to an attractive single at one go, and to be in his favourite list, sending virtual gifts such as flowers, can really make you stand out from the crowd.



Purchasing of virtual goods has proven to be popular across all age groups. Some statistics reveal that the demographic of women between the age of 30-45 purchase virtual goods at higher rate.

Facebook

Facebook is the current largest social networking website, with more than 500 million active users per month and valued 11.5 billion earlier this year as per SharesPost Inc. reports.

Facebook is the first networking site to introduce virtual currency - Facebook Credits, to purchase low-value virtual goods. Starting this month, Target Corp. customers can buy gift cards to purchase virtual goods.

Facebook's official website says, "Facebook Credits are a virtual currency you can use to buy virtual goods in many games and applications on the Facebook platform". People can purchase Facebook Credits using credit cards, PayPal, Visa, MasterCard or using a mobile phone. They can use the credits for any company willing to participate in the program. Facebook will charge merchants a 30% transaction fee when using their credits. Facebook will use this new source of revenue to further invest into the facebook credit ecosystem, educating users and marketing to them about the currency, testing out incentives to get people to try the credits out.

Microsoft

The software giant has issued 'Microsoft Points' that are currency, players can use to buy content at the Xbox Live Marketplace. Xbox Live's transactions business, including sales of virtual goods like movies and music on the Zune Marketplace, and clothes and accessories for players' avatars, has been steadily growing and recently surpassed its subscriptions business.



In August 19, 2010, Microsoft announced launching a new game in its Freemium Age Of Empires series that will feature online play and in-game micro-transactions. According to Forbes' Oliver Chiang, Microsoft is estimated to be making at least \$625 million in revenues a year from sales of virtual goods on Xbox Live.

Conclusion

The growth in virtual goods has risen of the back of social networking sites and games.

The social games industry has seen many acquisitions as small development firms get bought up. Earlier this year Playdom a company creating social games on Facebook, Bebo and MySpace after only operating for just two and a half years was acquired by Disney for 763.2 Million US Dollars. This trend is set to continue.

Social games usually seen on networking sites are now making their way onto games consoles such as 'Pet Society' or 'Who Has The Biggest Brain' where people will be able to buy upgrades.

Microsoft this Christmas is releasing 'Kinect' which offers a controller-free gaming and entertainment experience. Kinect monitors your movement and voice. To play the games it is necessary to create an avatar to represent yourself within whichever virtual realm.

It is becoming an increasing need to have a avatar presence online for gaming, networking and socialising opening up plenty of scope for virtual goods.

In the future, avatars may help in increasing communication and productivity between employees. Companies can use a virtual world to conduct meetings with staff sitting in any country. For example, the US software giant, IBM, has started a virtual IBM Business Center, accessible through 'Second Life' (a popular virtual world started in 2003). According to Gartner, "By the end of 2011, 80% of active internet users and Fortune 500 enterprises will have a second life", in the form of an avatar. It may even become a necessity to purchase virtual clothes!

By Suparna Sen, Smartcard & Identity News.





Turkey is a front-runner in the growth of contactless

By Mehmet Sezgin, CEO, Garanti Payment Systems



Mehmet Sezgin

To date the existence of contactless technology in the payments market has been a topic of much discussion and its uptake across the globe has been achieved with varying degrees of success. While the technology has been proven and has been stable for quite some time now, the enthusiasm of the banking and retail communities had remained somewhat tepid in many markets. However, over the last two years we have seen significant progress globally, with many making strong headway with their contactless developments. In particular the Turkish payments market has had great success with the introduction of contactless in 2006.

Getting contactless off the ground – what are the benefits?

Contactless can bring many benefits to all associated parties. For card associations it increases the reach of their products and for card issuers it can differentiate their products and services. For retailers, it can speed up transaction times and transaction values, and to card holders and customers who no longer need cash on hand, it means less time waiting to pay for goods.

What's more, with transactions completed in less than a second, contactless technology enables a much quicker customer service, especially in outlets such as fast food chains with a large customer footfall on a daily basis. This, in turn, reduces long queues, allowing retailers to serve more customers. In addition, retailers can also expect an increased spend from customers who are no longer limited by the change in their pocket. It also helps reduce errors and risks associated with cash handling, improving service quality and meeting customer demand for increased customer satisfaction.

Despite all these benefits, many retailers are still not entirely convinced of what the advantages of introducing contactless are for them. This is especially true in the United States (US) where retailers can already offer 'no signature required' card payments, which simply require a swipe of the customer's magstripe card through a reader. With 'no signature required' being as convenient to use as contactless, the question remains whether contactless would really generate considerable extra sales.

Moreover, in the United Kingdom, contactless is still a game of chicken and the egg where a lack of terminals present for the consumer has created little incentive for card issuers to invest in supplying contactless cards to customers. Conversely, retailers are reluctant to spend money on new terminals with only a very small percentage of their customer base that can actually use them. In other words, a lack of buy-in from all parties has been a big stumbling block for its uptake.

Perhaps the problem lies in the fact that contactless is simply not as widely acknowledged as it needs to be. Interestingly, with the introduction of contactless in Turkey, it became apparent that it was crucial to be more vocal about bringing new technologies to the market. It is often a common mistake to assume consumers know about new developments. However, introducing new technologies to the market takes more than just stating its arrival – you need to make a real splash. In Turkey, it was also essential to find places in the market where cash still resided as the preferred method of payment to allow retailers to step in and replace cash with contactless and thereby provide customers with an even faster way of paying. In addition to this, it was also important to collaborate with transport operators in the contactless roll-out to enable passengers to use and benefit from contactless technology.

Turkey's contactless phenomenon – what's driving adoption?

More so than in other countries in Europe, in Turkey the demand for the technology has risen steadily. According to a recent report by Euromonitor International 2010, Turkey, along with Poland, are the front-runners for contactless card growth with Turkey seeing almost 100 per cent growth year on year.

Contrary to the US and UK, retailers in Turkey have since embraced contactless wholeheartedly and today, already close to 30,000 retailers offer contactless technology and banks such as GPS now have a total of 1 million contactless cards in circulation. Driving and shaping the adoption of contactless in Turkey are a number of factors.

Firstly, the country's young demographic who make-up a large proportion of the population are far more technology savvy and contactless cards have appealed far more to this audience. With credit cards having





already deeply penetrated daily life, younger generations have happily adopted contactless cards to pay for low value items.

In addition to this, Turkey has been able to tap into the country's largest retailers to enable consumers to use contactless cards in the mainstream. Banks, such as GPS, have made agreements with many fast food outlets and coffee shops around the country. What's more, GPS was the first issuer of contactless PayPass cards from MasterCard, which were then extended to the bank's existing BONUS Trink cardholders, a loyalty scheme that soon established itself as the basis loyalty card schemes not just for banks but also retailers in Turkey following its introduction in 2006. Since then, Europe's first watch equipped with MasterCard PayPass contactless technology was launched, introducing the next level of contactless payments in the region to make paying for small-value items quicker and more convenient. Using this technology, consumers simply tap their new watches, stickers and keyfobs on the PayPass reader to make the equivalent of a credit card purchase at nearly 15,000 POS Terminals in Turkey at the time, including major names such as Burger King and Starbucks.

More recently, a considerable driving factor in the uptake of contactless technology has been Near Field Communication (NFC). Never has a technology advancement changed the way people not only communicate, but also consume, than the mobile phone. In the UK for example, the growth of mobile has been phenomenal, with 95 per cent of the population owning a mobile device. According to Ovum, in 2013 sales made through mobile phones are expected to reach £275 million. It is therefore the development of NFC functionality that can really drive a surge in contactless payment adoption.

In light of these developments, GPS and mobile phone operator Avea, recently launched the world's first NFC-enabled SIM card which can be put in any mobile device to make contactless payments, eliminating the need for NFC-compatible mobile phones. Users are now able to convert their existing mobile phone to become compatible with NFC technology simply by installing the new SIM card. This will enable them to immediately benefit from the convenience of the new payment method without having to replace their existing handset. In the UK too, there has been recent speculation that Apple's next iPhone will have built-in contactless payments functionality following the appointment of an NFC expert, highlighting the significance of NFC-enabled phones in driving forward contactless payments.

Taking all of this into consideration, the technology and drivers for contactless adoption is evident and it's clear that contactless can bring benefits to all associated parties. However, even with such promising progression in many countries, it is also reasonable to conclude that bringing contactless payments to the mainstream on a global basis will require not only better communication but also banks collaborating with all parties. To date, only a handful of countries, such as Turkey, have achieved this. Until a more proactive and vocal approach is taken, contactless adoption across the globe is likely to remain uneven for some time.

¹ <http://blog.euromonitor.com/2010/07/euromonitor-research-finds-contactless-card-growth-solid-despite-global-recession.html>

World News In Brief

Barclaycard-SmartPay Launches Next Generation Online Payments

The Next Generation Online Payments launched by UK-based Barclaycard and SmartPay will help European retailers compete with domestic retailers in foreign markets and reduce the number of transactions where customers do not complete their purchase. The new payments system is developed in partnership with global internet payment and e-commerce solutions provider Adyen, and it is hoped to revolutionise cross-border e-commerce by offering a simpler, seamless payment experience to the consumers.

Barclaycard SmartPay's next generation online payment option offers a single payment gateway for large merchants' online shops, adapting language

and currency to the origin of the paying customer. While ensuring an interruption-free redirect to the payments page, it also offers a diverse range of payment methods, helping retailers to meet local consumer preferences for online transaction types across European countries, which help in lower abandonment rates.

Hypercom and Pivotal Payments To Roll Out Multi-Million Dollar Terminals

Hypercom Corporation announced that Pivotal Payments, a leading North American merchant services provider, has begun to purchase and is deploying up to 33,000 Optimum countertop and mobile card payment terminals to merchants throughout Canada over the next 36 months.





Dutch Public Transport Smartcard Users Lose €500,000 Per Month

About 7000 bus, tram and train passengers per day are failing to claim back €500,000 a month from public transport companies since they forget to swipe their smart cards when checking out, the *Financieele Dagblad* reported.

It has been found only 11% of train users get back the deposit which is deducted from their ov-chipkaart cards at the start of every journey, meaning that Dutch Rail (NS) can pocket the €10 or €20 basic charge. However, if a particular journey cost more than the deposit, NS misses out on income, the paper points out.

ACS to Launch Peru's First Contactless Ticketing System

Affiliated Computer Services (ACS) will be releasing Peru's first contactless ticketing system on Lima's (Peru's capital) forthcoming Bus Rapid Transit line "Metropolitano". The buses that will start functioning soon, is believed to be carrying 700,000 riders daily.

ACS has signed a 14-year, \$200 million contract to deliver and operate the system, which will allow bus riders to pay for fares with the wave of a smart card. ACS's contract also covers back-end management, cash collection and daily revenue reconciliation, device maintenance, customer care centre services and in-station card sales.

GALITT and EVOLIS's Solution for Issuance of Multi-Interface Cards

GALITT (expert in e-transactions consulting services) and EVOLIS (provider of a comprehensive range of plastic card printing solutions) are set to offer a fully automated testing solution for dual interface cards. The solution relies on the Personalisation Validation Tool, 'VISUCARD', developed by GALITT and used by main personalisation bureaus and issuers. The solution, meant for all issuers, uses the high performance system, QUANTUM 2 from EVOLIS, offering a capacity of 500 cards and a flexible encoding module. Both products are integrated and fully automated. They can successfully qualify batches of cards before executing mass-production.

First DDA-Featured New Chip Payment Card Launched

Incard announced a new chip payment card, the first to feature Dynamic Data Authentication (DDA) that maximises security for offline card-present

transactions, and achieving the Consorzio Bancomat approval allowing its use in Italian payment-card applications. The new Incard product also supports the Visa and MasterCard payment applications, thereby meeting the global EMV (EuroPay, MasterCard and Visa) mandate for cards to support DDA from January 2011.

Visa to Showcase New Mobile Phone Payment Systems

VISA will roll out a network that will allow its customers to pay for goods using their mobile phones for the 2012 Olympics. The world's biggest payment processing firm hopes the new technology will help in turning the transactions market, cashless and contactless.

Visa has 1.7billion users worldwide but this is dwarfed by the 4.7billion people who use mobile phones. By 2015, 3.5billion people will be regular mobile internet users. Visa is expected to have a fully developed network available by 2015, but it says it will use the London Olympics as a showcase for the new technology.

Safran to buy L-1 for \$1.09Billion

France's Safran has entered into a definitive agreement with L-1 Identity Solutions, one of USA's leading identity management providers, for the purchase of L-1 biometrics and ID management solutions businesses. The purchase includes operating and holding of L-1's biometric and enterprise access solutions, secure credentialing solutions and enrolment services businesses, for a total cash amount of USD 1.09 billion.

Now 3-D Modelling for Facial Recognition Accuracy

Facial-recognition experts will soon be able to make two-dimensional, partial images of suspects pop from computer screens with three-dimensional technology. Lockheed Martin and Animetrics were recently awarded a research and development contract by the U.S. Government to improve the accuracy of facial recognition. The new technology will allow experts to use 3-D modelling to recreate the subject's entire face, which experts will then compare to existing mug shots or file photos of the suspect.

Fake Credit Card Factory busted in London

According to news report, Gabriel Yew and Cheng Chee Weng along with 2 other men were found guilty of running a fake credit card factory in Chinatown, central London, and likewise sentenced to 4 years and 15 months of jail by the Southwark Crown Court in London. Police found these fraudsters were using the counterfeit plastic cards to buy luxury goods worth thousands of pounds.



Enriching the Payment Interface with Next Generation Terminals

By Tony Saunders, Marketing Director of VeriFone



Tony Saunders

Originally designed as a retail ‘fraud-buster’, Chip and PIN has brought an unexpected twist to POS evolution – it has put payment devices in the hands of the consumer; creating a unique customer ‘touch-point’ that is now ripe for exploitation by technologies such as identity, biometrics and contactless.

So, how can modern payments maximise the obvious consumer appeal of new interface and card technologies, in cost-conscious retail, hospitality or ticketing environments, while still retaining a healthy return on investment?

As a global manufacturer and one of the world’s leading payment solution providers, VeriFone has risen to this challenge by taking advantage of reduced component costs, economies of scale and the latest IT innovations to create its VX Evolution portfolio - a new generation of payment devices that reflect consumers’ aspirations and merchants’ stringent operational requirements.

With VX Evolution, we have worked hard to factor in capabilities that will address current market drivers as well as planning in platforms capable of supporting future card and transaction technology as it evolves. This includes industry-leading performance, with ARM11 advanced processors and large standard memory configurations - giving faster transaction speeds and more application capability. Touch screens and large colour displays to deliver colourful, interactive content, and make transactions easier, more intuitive and convenient. PCI PED 2.0 specifications combined with end to end encryption for optimum security; and integrated wireless, USB and contactless for more integrated and efficient operations.

Delivering tangible benefits today, many of these new capabilities may also be harnessed to facilitate the advanced identity and biometric functions which are just around the corner.

But why should retailers even think about changing terminal design? Just how important is it to their strategic goals?

A New Challenge

At VeriFone, we believe that today’s POS devices while addressing merchants’ business needs for optimum security and greater return on investment must also appeal to, and engage more effectively with, the consumer. They should also provide platforms capable of facilitating future smart card evolution.

Speed, availability and performance are still vital; but so too is the ability to make transactions easier, more convenient and also pleasurable for a population whose attitudes towards technology have changed dramatically since the introduction of Chip and PIN. In the past year alone, high-tech, colour displays and touch screen software has come of age at a time when many merchants are ready to upgrade their POS systems. Their penetration now dominates mobile phones, portable navigation units, gaming and other applications – redefining the ways in which consumers expect to interact with devices.

A Pocket Based Revolution

There is also a similar ‘pocket-based’ revolution taking place in payments methods. Consumer adoption of multiple card formats including contactless payment cards, multi-application payment cards, prepaid gift and loyalty cards are all fuelling the growth of advanced electronic payment devices. This and consumers increasing familiarity with sophisticated handheld devices – from mobile phones to games consoles – is transforming how retailers engage at the Point of Sale (PoS).

A recent study by the Centre of Retail Research, commissioned by Visa Europe, confirms this. It reports that multi-application cards and phone-enabled promotional offers are expected to be used by 35.2% and 34.6% of retailers respectively, and pre-paid cards by 33.9%. Phone-enabled contactless payments were also highly rated (32.7%) and contactless cards by 26.4%. Keyfobs tags were expected to be accepted by 19.1%.

VeriFone believes that ‘ease of use’ is no longer a sufficient success criteria for customer transaction points – instead ‘ease of customer engagement’ will be the new marker for POS success. In this environment, touch screen terminals with large colour displays, like VX Evolution, will open the door to new value added services delivered direct from the payment device.





Powerful Market Drivers

Most industry commentators agree that key market drivers impacting the global retail POS payments environment in the next five years include contactless; security and compliance; and wireless integration.

- **Contactless**

Today, the global contactless market is estimated to have a potential value of \$963 billion a year. Card issuers and banks have been the first to champion contactless while retailers are now turning to contactless to make lines move faster and minimise handling costs associated with low value cash transactions.

To help them take advantage of this expanding market, VeriFone now includes fully integrated contactless payment capability as an option on every VX Evolution device. The contactless antenna is neatly tucked away under the display screen. There's no need for a separate snap-on-reader or add-on peripherals. Integrated contactless in the portable VX 680 also means retailers can use it anywhere — for queue busting within the store; delivery points; or at outdoor venues and markets. It's all about making it easier for the merchant and future-proofing their POS investment.

- **Security & Compliance**

In 2009, 95 percent of debit card issuers were affected by data breaches, making fraud mitigation a top challenge for issuers. From an operational perspective, security vulnerability costs include, non-compliance penalties, downtime due to security patching and breach disclosure costs can run into millions per breach.

In addition to the monetary impact, there is also the potential damage to the relationship between an organisation and its customers. Industry experts point out it can take years to regain customer loyalty once it has been lost, if it can be regained at all.

For both retailers and consumers, building advanced security features into the POS platform makes sense. Once again, VeriFone is leading the way with its VX Evolution portfolio which meets PCI PED 2.0 standards and also include VeriFone's VeriShield Protect advanced end-to-end encryption platform designed to protect card holders' data from the point of entry throughout the transaction chain.



Model VX820DUET



Model VX820



Model VX680

- **Wireless & GPRS**

Market experts including Frost and Sullivan also highlight the emergence of transmission control protocol/Internet protocol (TCP/IP) and wireless communication technologies such as CDMA, GPRS, and Wi-Fi as key factors driving new terminal investment.

The need for faster front and back office integration; real-time stock and transaction monitoring and reporting; and remote wireless access to centrally managed applications will continue to fuel demand for better POS connectivity.





Motivation for POS Investment

Studies show that growth in retail technology systems shipments and revenues will be driven by global demand for technologies needed to meet rapidly evolving security standards, as well as retailers' demands for highly efficient and customer-friendly technology.

Retailers will also look to technology to enhance the customer experience, drive customer loyalty, reduce costs, and to become more efficient at managing inventory, space and human resources. Importantly 'terminal appeal' may also emerge as a unique way to stay competitive as peers look to achieve the same goals.

While retailers will be eager to embrace technology, global economic challenges will continue to put pressure on investment budgets. VeriFone anticipates a 'back to basics' focus on fundamentals and a shift in market values as IT is called to renewed its focus on return on investment and lower total cost of ownership.

So, do evolving new devices mean introducing a totally new platform? History has shown that platform switches by major vendors have caused unnecessary costs and made support more complex for retailers. To make the most of new 'customer focussed' technologies while addressing retailers operational needs VeriFone has focussed on creating a unique evolution path that leverages all the advantages of its proven VX (Verix) platform.

Why? Because the Verix system and guiding development principles have a decade of proven use, combined with the new market-leading functionality of VX Evolution.

We believe that evolution is all about taking the best and making it better. Verix maximizes communications, speed and flexibility, supports value-added transactions and delivers multi-app capability with application separation at both the hardware and software level—enabling applications to securely co-exist on the same device.

Creating Long Term Appeal

As retailers assess their options, one thing is clear - they cannot afford to replace their POS estates with 'like for like' terminals. Most realise that today's techno-savvy consumer will soon want more from their in-store experience.

Consequently, it will be the POS technology which delivers the most benefit and the highest impact that will prevail. Retailers will look for market focused solutions not products. For vendors that means cautious and responsible innovation with a focus on key features. Payment device manufacturers will have to exercise discipline to offer more functionality and benefits using less parts and more simple elegant and engaging designs. POS will be about optimizing performance, innovating services and evolving functionality and features. And all within the most secure transaction environment possible.

Speed, availability and performance will remain vital. So will the ability to make transactions easier, more convenient and also pleasurable for a population whose attitudes towards technology is becoming more intuitive, immersive and embracing. VeriFone's latest VX Evolution portfolio reflects many of the key trends for PoS over the next few years. More memory, more processing power, larger, colourful touch screens, multiple applications, flexible multi-connectivity and, of course, contactless, security and PCI Compliance.

With powerful tools to engage consumers and staff more effectively, these new platforms will open the door to new revenue streams, more flexible bespoke OS services and more integrated powerful solutions - reflecting BOTH consumers' aspirations and retailers' stringent operational requirements – for true long term return on investment.





Improving the security of driving licences using the latest 3D photo technology

By Dr. Fred Preston, Senior Director, Morpho UK Limited



Dr. Fred Preston

Morpho, formerly Sagem Sécurité (Safran group), as the largest supplier of biometric Identification Solutions worldwide, is a leading provider of national ID cards, driving licences, digital tachographs and e-Passports. Morpho was recently awarded a contract to deliver the North Carolina Drivers Licence (US), integrating the use of 3D Photo ID technology. The following article looks at how this technology addresses the growing need for ever more secure technology to counter both card and identity fraud.

Traditionally identification cards, such as national ID cards and driving licences have been produced as paper documents with physical photos attached in plastic pouches. However, this approach no longer provides sufficient security against forgery and the losses due to identity theft and crimes associated with fraudulent use are significant. These lessons have been well-learned over the last few years by both national authorities and the general public.

Over the last few years developments have included the use of plastic card based solutions with various personalisation techniques to add the personal identity data directly onto a plastic card body mitigating the threat of simply substituting another physical photo. At the same time security features have been

added to help safeguard the authenticity of the card itself. Although these developments initially provided a higher level of security, forgers capitalised on the remaining weaknesses and easily found techniques to wipe-off the original personal data, like the photo, and replace it with another one. Personalisation techniques on standard plastics like PVC are typically limited to the surface only. To make these more durable, protective foils are usually applied using hot melt or glue-based solutions, but this allows the foil to be removed with chemical solvents and/or under increased temperatures exposing the surface-based personalisation which can then be removed and replaced.

Polycarbonate solutions offer a fundamentally different approach where the personal identity data is engraved using lasers directly into the body of the card. This process irreversibly changes the material in the card body so subsequent attempts to change the engraving, data and/or security features, would be readily detectable.

Figure 2 shows an overview of the process.



Figure 1: The photograph and personal details can be easily changed on laminated cards by separating the layers.

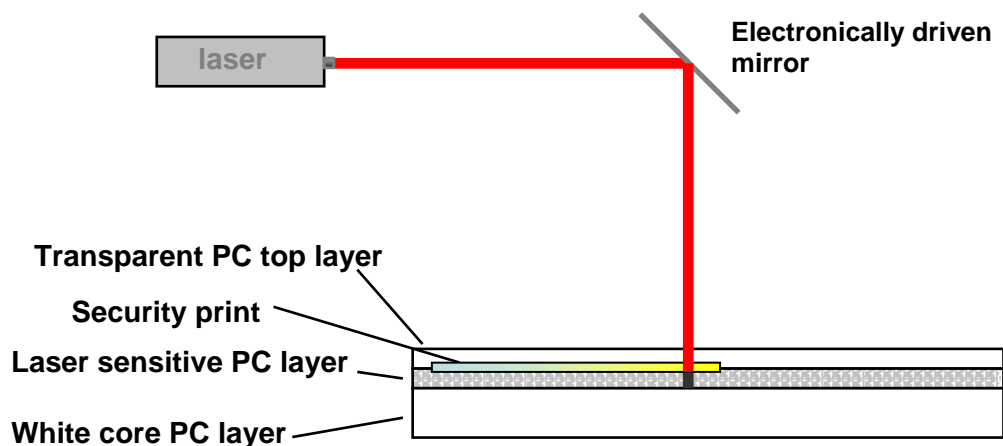


Figure 2: Laser engraving process in a polycarbonate (PC) card. A mirror is driven electronically to produce the laser engraving within the body of the card. Additional security printing can also be incorporated within the polycarbonate card.



The polycarbonate cards are designed to be a homogeneous ID-1 size card (standard “credit card” size) using a heat-laminated process without any extraneous material like adhesive layers or porous structures. The heat-lamination process produces a card which cannot be split into its original constituent layers greatly enhancing the security of the final product.

Additional security printing techniques such as fine line structures, complex motifs and rainbow printing are also applied to help secure against counterfeiting of the card. The inclusion of optical variable inks and Diffractive Optical Variable Identification Devices (DOVIDs) such as holograms which can also be inserted into the material brings this ID card concept to a much higher level of security.

Even as forgers and counterfeiters move on to the next level of sophistication with new tools and techniques using computer aided design tools, experienced and well trained inspectors can still relatively easily detect counterfeit cards. However with the growth of identity proving documents, such as driving licences, being used to support an increasing range of transactions, the growing group of document inspectors are not always sufficiently trained, or experienced, in the newer and more sophisticated printing technology to be able to detect forgeries effectively.



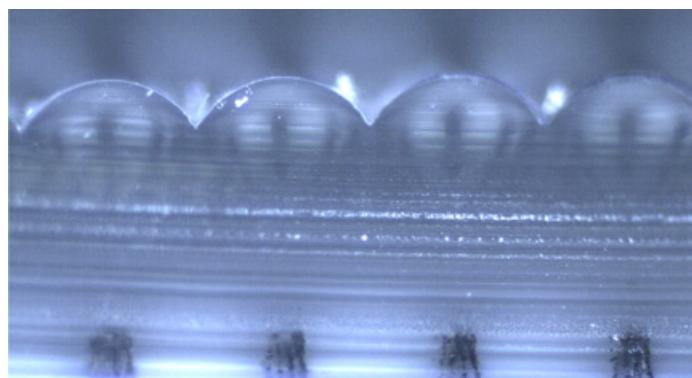
The development of laser-engraved three dimensional (3D) portrait technology aims to address the need for the integration of difficult to forge printing technology and the ease of validating the authenticity of the card. At the same time it is helping to strike the balance between ownership, privacy, ease of enrolment and cost, as it offers a first-line security feature that is obvious at a glance, difficult to counterfeit, and inherently establishes ownership between the ID and its rightful owner through an examination of the printed 3D image. Security is therefore integral to the card structure and does not depend upon a myriad of first and second-line features that vary from card to card and which can be difficult to check without specialised training or equipment. To create a high quality three-dimensional image of a person, multiple photographs of the holder are taken from different angles. The images are analysed and the eyes, which are located automatically, are used as reference points by the software to register the images over each other prior to the laser engraving process.

3D photo enrolment is as simple, fast and non-invasive as single image photo capture and also offers the advantage of using low-cost, off-the-shelf components.

How does it work?

The polycarbonate card body provides a medium that can be layered containing different integrated security features. The lamination process involves melting the polycarbonate sheets between two heated plates. The various layers are inextricably bound after this process, by entanglement of the polymer molecules, so that they cannot be separated or spliced without destroying the card.

A lenticular lens array is created during the lamination process. The four portrait images captured during enrolment are laser engraved through the lens into the body of the card; each image engraved at a slightly different angle.



*Figure 3: Cross section of a lenticular lens array on the surface of a polycarbonate ID card.
The laser engraved pixels of the four photos can be seen at the bottom of the figure.*

When viewed through the lens array, the left and right eye will each view a different laser engraved photo when inspecting the document. The brain then converts these individual images into a three-dimensional portrait. This method allows perfect registration of the images and the lenses. The fine line structure of the laser engraved 3D image provides an image far superior to the two dimensional photos normally printed on identity documents and makes counterfeiting virtually impossible.





Figure 4: Illustration of a secure card with 3D Photo ID

3D photo technology provides a powerful first-line feature for driving licences that easily integrates with existing workflows and security concepts used.

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World News In Brief

Cubic Latest DASH7 Alliance Member

Cubic Global Tracking Solutions announced that it has united with the DASH7 Alliance, to advance the use of wireless sensor technologies by developing extensions to the ISO 18000-7 standard for active RFID.

Operating in the license-free 433 MHz, DASH7 offers multi-kilometre range, multi-year battery life, sensor and security support, and tag-to-tag communications. DASH7 devices operate on a single global frequency and are interoperable out of the box regardless of application and by design do not require application profiles.

AOptix Technologies and Aware Inc. to Combine Biometric Face and Iris Capture System

AOptix Technologies, Inc., the largest developer of advanced iris biometrics products and long-distance wireless optical communications solutions and Aware Inc. has built a prototype dual-factor iris and face biometrics system that will integrate AOptix's innovative InSight 2 meter iris recognition system with Aware's Universal Registration Client and an industry standard face-imaging camera.

Aware's URC application and underlying SDKs will provide an intuitive user interface for automated enrolment of iris and face images, along with an option for fingerprint biometrics and biographic information, whereas the InSight system will automate the iris biometric to capture at a nominal stand-off distance of 2 metres.

Gemalto's U.S. Secure Production Centre Awarded NASPO Security Assurance Certification

Gemalto announced its advanced manufacturing and service centre in Montgomeryville, PA., has received the security assurance certification from the North American Security Products Organisation (NASPO). The audit renewed the certification of Gemalto's security practices and procedures against the ANSI/NASPO Class II "Assurance Standards for the Document and Product Security Industries".

The NASPO standard certification evaluates all security practices within the centre, which includes the manufacturing and services processes, security controls for the supply chain and critical component suppliers, as well as policies and procedures to ensure only authorised customers have access to finished products.



Nokia Unveils New Smartphones

Nokia has unveiled three new smartphones, in the annual Nokia World event in London. The launch of E7, C7 and C6 model smartphones is believed to be a move likely to help the Finnish giant to revive its shrinking market share in the mobile phone segment and take on competitors. The devices use the latest Symbian software, and along with the much-anticipated N8, will form a portfolio of phones running on the updated operating system of Nokia. Claiming that Nokia sells more smartphones than rivals, Nokia vice president (markets) Niklas Savander said: "We sell 260,000 smartphones every day and plan to sell 50 million of the new smartphones post launch".

ID World International Congress 2010

The ninth ID WORLD International Congress - the world's leading thought-leadership symposium on automatic identification - will be held in Milan on November 16-18, 2010.

ID WORLD has a comprehensive approach to the evolving world of RFID, biometric, smart card and data collection technologies and their applications in the area of security, tracking and ID management. With its 100+ exhibitors and exclusive networking initiatives, it is the only international summit that looks at all automatic identification technologies and all vertical market sectors from the standpoint of all stakeholders involved.

Since its foundation in 2002 as a round table event on automatic identification, ID WORLD has enjoyed an impressive track record, growing over the years into an annual event that today attracts the most important players of the ID community at industry, end-user and government levels worldwide.

Speakers at the last ID WORLD Conference in 2009 included 72 CEOs from the global auto ID industry. This year's event will host the Citizen ID Forum, the Transportation Security Forum, and the Asset Tracking Forum, and will feature four special initiatives: the Postal Innovation Conference, the NFC Academy Conference, as well as an all new initiative for the Healthcare Sector and QUID, the all-Italian event on security and traceability.

DeviceFidelity and Its 'In2Pay' for iPhone 4

DeviceFidelity announced the In2Pay iCaisse4 plug and play mobile payment solution. In2Pay iCaisse4 is a specially designed protective case that enables iPhone 4 to be used to make payments at contactless-enabled merchants worldwide. Through its partnership with VISA, DeviceFidelity's In2Pay solution is being used in trials by banks and wireless carriers in North America, Europe and Asia.

The In2Pay iCaisse4 has a microSD slot that is designed to accept the In2Pay microSD secure contactless device, issued by a financial institution or wireless carrier as a credit, debit, prepaid or a multiple account digital wallet. Once consumers plug in their In2Pay microSD, they can simply wave their iPhone 4 to pay at retail stores, fast food restaurants, in taxis, vending machines and tens of thousands of other merchants enabled to accept contactless payments worldwide.

Europe's First SMS Based Airtime Transfer Service Launched

Ingenico announced the launch of Europe's first SMS-based international airtime transfer service by TransferTo, an Ingenico company, and leading provider of international airtime transfer services. This innovative service allows any SFR customer in France to top-up the mobile phones of Tunisie Telecom prepaid users simply by SMS. It is simple to use and is ideal for sending airtime back home to relatives and friends, a great low-cost/high-value gift for special occasions such as religious festivals or birthdays.

LaserCard Receives \$2.8M Worth Cards' Order

LaserCard Corporation, a leading provider of secure ID solutions, has received a follow-on purchase order valued at approximately \$2.8 million to supply Costa Rica's Immigration Authority with Foreign Resident Cards. The credentials feature LaserCard's optical security media, the same technology at the heart of the U.S. "Green Card." Delivery of cards is expected to be completed by the end of December 2010.





The Future of POS Pin Pads with Ingenico

By Tom Tainton, Smartcard & Identity News



Tom Tainton

Every day retailers are subjected to thousands of transactions through a variety of payment methods: credit and debit cards, contactless cards, loyalty cards and electronic purses. The different types of card formats are increasingly rapidly, and so are the demands of the consumers. The retailers need for speedy and secure transactions is paramount to the livelihood of their businesses and Ingenico may have just developed the solution to their worries.

The French based provider of payment products recently launched its new range of iPP320/350 PIN Pads in a bid to provide merchants with centralised management, enhanced customer relations and secure transaction services. According to Ingenico, the PIN Pads are designed uniquely for the retail market, combining integrated contactless applications with other services such as loyalty programs, lottery games and promotions. The iPP320/350 series uses a 32-bit RISC processor to speed up card transactions so that retailers can deal with a greater number of consumers during peak times.

It may sound complicated, but weighing in at just 240g, the PIN Pads can be easily handled by children too. Ingenico say that the large screen is easy to read and the large backlit keys 'limits the risk of error' when punching in your PIN code. If it's dropped the product's shell can withstand hefty knocks. In other words, it's idiot-proof.

The PIN Pads include a magnetic card reader and an EMV smart card reader as well as MasterCard PayPass and Visa PayWave approved technology. In fact, the PIN Pads can be connected to any type of payment system via USB and Ethernet/IP serial ports so it's compatible with all types of connections required by the market. Rather than the headache of overseeing several readers, merchants now have access to a single terminal which can be upgraded to contactless without having to replace the existing hardware. In addition, the centralised management of the numerous terminals enables maximum availability while improving maintenance organization and operating efficiency. The time and costs associated with upgrading payment terminals for retailers has proved a stumbling block for the progression of contactless technology. The PIN Pads could change all that. Good news for retailers. Good news for the contactless industry.

But does the PIN Pad range meet the considerable demands in the security department? Well, the Ipp320/350 terminals comply with all statutory and security constraints as well as withstanding the electromagnetic field from anti-theft barriers, protecting transactions from any disturbance. As for the terminals, the PIN Pads feature a simple anti-theft system: a Kensington security slot. Failing that, retailers are encouraged to 'screw the terminals down'. Sometimes the traditional solutions are still the most effective.

The retail industry is a diverse one. To meet the many different requirements such as large stores, supermarkets, specialised chains, restaurants and leisure parks, Ingenico has developed Axis, a multi-channel high availability transaction platform. Axis centralizes the entire transaction lifecycle, guaranteeing real time reporting and accelerating payment authorisation requests.

Most recently, Ingenico has signed an agreement with the Calypso Networks Association (CNA) to provide the latter with its contactless solutions and terminals.





World News In Brief

Europe's Largest Mobile-Payments Trial Begin in Spain

Instead of handing over cash or a card at the end of a shopping trip, 1,500 Spanish locals are getting the chance to pay for their purchases by swiping their mobile phone over a contactless reader at the till. The device contains an NFC (Near-Field Communication) antenna, which allows it to make contactless payments.

Unlike in a 2008 London mobile-wallet pilot, these handsets are not pre-loaded with cash, but are linked to the trial participants' existing bank accounts, which mean they are spending their own money and making the trial more commercially realistic.

BlackBerry Released 'Playbook'

Research in Motion's CEO Mike Lazaridis unveiled its first business-centric tablet computer - 'Playbook' at its developer conference, DEVCON, in San Francisco, USA. According to Mr. Lazaridis, Playbook will give RIM an opportunity to dominate in a market it is familiar with and where it enjoys a solid reputation.

The Playbook will have Bluetooth and WiFi, along with a 7-inch screen with front and rear facing cameras to enable video conferencing. The operating system will not use the new BlackBerry OS 6 but the QNX software, which was recently acquired by RIM and has an expertise in embedded systems for the car. The new OS is designed specifically for the tablet size computers and will avoid the difficulties that come from adjusting a smartphone OS to the tablet platform.

HSBC Launches New Online Solutions for Global Payments & Cash Management

The Hong Kong and Shanghai Banking Corp. (HSBC) have launched its new online solutions delivery platform - ClientSphere, for global payments and cash management. ClientSphere promises to lead to a faster and more efficient implementation of cash and treasury management solutions worldwide.

ClientSphere is the result of a client-driven approach to product design and development, leading to patent applications for the platform around the globe. HSBC client GroupM, a global leader in

media investment management operation, used ClientSphere to move from paper-based instruments towards electronic payments and address the growing large-scale disbursement, payroll processing and collection needs of their different entities, namely Mindshare, Mediacom, Kinetic Worldwide Media, Maxus Media and Mec Media.

VASCO Announces Availability of Multi-OTP Technology

VASCO Data Security International, Inc. (www.vasco.com), a leading software security company specialising in strong authentication products, announces the availability of its multi-OTP technology. With its multi-OTP devices, VASCO is responding to existing customers of traditional authentication solutions who have a need to secure additional applications without yet introducing online transaction signing. DIGIPASS one-button devices providing single one-time passwords (OTP) are ideally suited for user-friendly authentication.

Oracle Sued Micron Technology Inc. Over Chip Price Fixing

Oracle, world's No. 3 maker of computer software, accused the US memory chip maker - Micron Technology, of scheming with other manufacturers to artificially inflate the price of DRAM (dynamic random access memory), according to a lawsuit filed by Sun Microsystems.

Five of the world's top DRAM manufacturers pleaded guilty between 2004 and 2006 to a criminal price-fixing, including 2 Samsung corporate entities. But Micron was reprieved by the US Department of Justice for being the first to admit its role in the cartel, according to the lawsuit. However, after Oracle bought Sun in 2010 for about \$7 billion, the company decided to sue Micron since it was not punished till date.





Society is... ..getting there

By Peter Tomlinson, Smartcard & Identity News



Peter Tomlinson

The word is that the Coalition is very much in support of public transport. Not that I have heard them particularly saying why, but then their PR effort has yet to mature. So it is encouraging that already experienced is that some very civil servants are being encouraged to help public transport become more customer friendly, including looking hard at how technology can really assist.

Norman Baker, Transport Minister and Liberal Democrat MP, has found in a Marsham Street cupboard a plan for a national public transport smart card, but not for deployment until 2020. He is thought to have decreed '2015', and is reported in the press thus: "Ultimately, the goal would be to allow seamless travel on one ticket throughout the country, although Mr Baker accepted that including long-distance rail journeys in the scheme may be complicated" (Evening Standard web site 5/9/10 - the Sunday Express also carried the story).

What, then, really needs to be done? My mind rolled back across the last 12 years and turned up something that might help. Then it rolled back a lot further to about 1971 and Dr (later Prof) John Kent, then a Senior Lecturer in History, saying to me: "The difference between the middle classes and the working classes is that the middle classes' cars work most of the time and the working classes' cars work only some of the time". In that environment, for very many people, a reliable public transport service stood head and shoulders above the private car experience. Today our experience of our own vehicles is very different, inverting the relationship between public and personal provision. Norman Baker picked that up when he also said that his national card would give people "more confidence" to use public transport. But maybe there are other driving forces behind government's desire for better public transport, such as reducing congestion and greening the delivery of personal journeys.

From those memories of the last 12 years, I concur with the Minister on the need for the traveller to have greater confidence in public transport, but don't follow his apparent confidence that his smart card and government's other current ideas are enough to create that. Conversations with numerous people have regularly thrown up the problem of not knowing if public transport will get you there, either at all or by actually delivering to you those services that are advertised. By contrast, the very reliable private car, now very widely available, does get you there. Indeed advertised bus public transport services are not even guaranteed to pick you up when it is clear that they could - a recent letter from Vosa (govt's Vehicle & Operator Services Agency) includes:

VOSA do not condone the actions of an operator in failing to pick up passengers. However we are required to work within the legislative framework established by the Transport Acts 1985, 1986 & 2000. As there is no legal basis for either VOSA or the Traffic Commissioner to take action regarding such matters it will not be possible for VOSA to investigate further.

That contrasts with a 20 mile journey in the 1950s on a Reliant bus (in company with my father), from Helmsley to York one Monday morning. We stopped at the junction with a lane and the driver asked if anyone knew if the passenger who normally got on there was indeed expected that day - and so another passenger got off to walk up the lane to find out, to be met very quickly by a lady running down the lane a bit late.

Despite rail's complex ticket structure and independent operators, there are many situations where the Train Operating Companies (TOCs) do give you a guarantee of getting there - actually to your destination station. They even use taxis when necessary. And there is evidence that sometimes TOCs do co-operate when they don't have a legally binding commitment to do so. Clearly not so with bus services today. So it was that a few years ago I wrote to Prof David Begg, then Chair of the gov't's Commission for Integrated Transport, to suggest a way in which bus public transport might, in partnership with its passengers, take away the fear of getting stranded. It was to be an insurance based provision, where you buy an annual policy (private sector provided) that would guarantee that you could summon up a taxi or shared minibus if you were stranded by a bus company (including when the problem is missing a connection), and then (on payment of a small supplementary fare) be taken to your destination. Prof Begg replied that it is good to think outside the box ... The technology content? You use ITS compliant smart media (card, or more likely secure mobile phone app) to take the bus journey, and the insurance provider's call centre has access to the database that knows about your ticket and the bus services.



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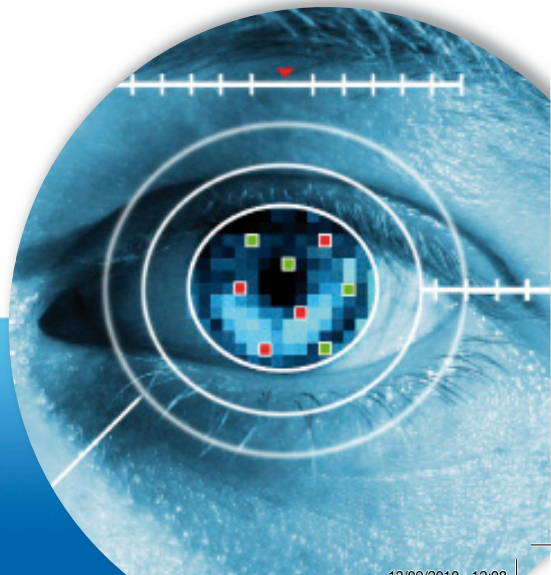
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