Autumn 2010

# CHYPPINGS

The Consult Hyperion Newsletter



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and much more!

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improve the efficiency of public services

# Smartly Secured

**New technology applied in order to promote more efficient energy use**

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# Smartly Secured

## In order to meet European targets on CO2 emission, the UK government has directed that new technology be applied in order to promote more efficient energy use within British households.

Landis + Gyr, a worldwide supplier of metering products, has entered into an initiative with British Gas to see all mechanical meters within the UK replaced with Smart Meters by 2019. Smart Metering technologly, being developed in the UK by Landis + Gyr, deploys intelligent meters and display devices capable of communicating over localised Home Area Networks, more commonly referred to as HANs. Radio modems and network controllers extend the reach of the HAN back to the energy suppliers management systems via the GSM network.

**This innovative use of the mobile communicataions channel coupled with smart devices enables the consumers to view their energy consumption in real time, and take proactive actions to reduce cost, thus reducing their carbon footprint.**

Additionally the technology confines the estimated bill to the history books by allowing the energy supplier to deliver a cost effective, optimised and accurate service tailored to the needs of the individual consumer, without the need to make costly and intrusive site visits.

Future innovations, envisged by the designers at Landis + Gyr, see a more direct role for the energy supplier in managing energy consumption, through the deployment of network components that can be remotely switched as part of a modern day equivalent to Economy Seven.

**With these innovations, homeowners can connect power hungry appliances to remotely controlled circuits that are only active during off peak periods; removing the nagging doubt we may have all felt at one time or another regarding the iron or cooker we think we may have left on whilst at work.**

Unsurprisingly, Smart Meters use cryptographic keys and algorithims to secure all the local and remote messaging within the metering network.Due to their position of expertise within IT security, Consult Hyperion have recently been engaged by Landis and Gyr to undertake a high level review of their production facilities in Peterborough and Stockport.




The object of the review was to identify potential areas of weakness in Landis + Gyr's production processes in relation to the handling of cryptographic materials during the manufacture of smart meters. Landis + Gyr accept that security starts at the beginning and that any service architecture, no matter how secure, can be seriously compromised if the constituent parts are not handled securely.

The work was completed in early August and a comprehensive set of recommendations were delivered to Landis + Gyr. It is hoped that this work will lead to further collaboration with Landis + Gyr and help develop new markets for Consult Hyperion.



**Suki Chana - Senior Consultant**

# Race the Sun

**On Saturday 4th September 2010 a team from Consult Hyperion once again took part in the exciting 'Race the Sun' event to raise money for Action Medical Research, a children's charity dedicated to improving the health of babies and children in the UK.**



Taking place in the magnificent setting of the Lake District, the team of four started the challenge at sunrise and attempted to finish by sunset, thereby racing the sun! They cycled a total of approximately 50 miles (80kms), hiked to the summit of England's second highest mountain – Helvellyn at 3,116ft (950m) – and canoed a 2.5 mile (4kms) course on Lake Thirlmere.

It was a memorable and enjoyable day, and below are some comments from some of the team members:- "The event was a true test of perseverance and team work, and was all for an excellent cause. I enjoyed it thoroughly and feel very satisfied with our accomplishment."
**Paras Mehta, Software Engineer**

"Conditions were much more favourable this year than last, so it was possible to enjoy as well as endure!"
**Neil McEvoy, Managing Director**

"Personally, I enjoyed the mountain biking section the most, which was a technical test as well as a slog. Too bad I failed, developing an overly intimate acquaintance with the terrain."
**Neil McEvoy, Managing Director**

"I think the worst part for me was the Canoeing. I was sitting in the front of the canoe in my shorts getting cold and soaked every time the canoe went through a wave, whilst Paras was sitting warm and dry behind me with his waterproof trousers on! The best part would have to be the cycle back, especially when overtaking some of the other teams!"
**Matt Barker, Consultant**

The team's total time was 12 hours and 8 minutes – beating the sun by one and a half hours, and they are now looking forward to next year's event!

## Broke Brittania!

On Thursday 26th August Consult Hyperion sponsored "Broke Brittania!" – the musical which presents the credit crunch with vicious lyrics and great songs. Written by David Shirreff of The Economist, this took place in Edinburgh and ran for a total of 6 nights. Leaving no financial stone unturned, the musical took a satirical look at the financial crisis -adeptly roasting the bankers and regulators who are the public face in Britain's economic woes

The evening was a huge success, and was enjoyed by one and all who attended!






**Gloria Benson of Consult Hyperion with the writer, The Economist's David Shirreff**

# VOME in the arts!

## Through the VOME project, Consult Hyperion has had the opportunity to participate in a number of public arts events over recent months.





As part of the ESRC Festival of Social Science in March, we worked with our partners at Royal Holloway, University of London to organise an event entitled 'Exploring Privacy: Your Privacy and the Internet'. Physical theatre group, Bimbilibausa, portrayed the potential pitfalls of the online world through the experiences of a clown.

Throughout the performance the audience were able to direct the decisions of the main character by e-voting, as she moved from posting photos, to flirting with a colleague and dating online. This resulted in valuable data collection to underpin further research, as well as a video of the performance, which is accessible at http://www.vimeo.com/11164895.

More recently we have been working with Woking Writers' Circle on the production of a collection of short stories and poems entitled 'Privacy Perspectives'.

As inspiration, we were honoured to have Dr Anne Rowe of the Centre for Iris Murdoch Studies at Kingston University, London, describe the complex privacy issues she faced around the publication of David Morgan's book 'With Love and Rage: A Friendship with Iris Murdoch'. Prepared for publication shortly after the Mosley case, great care had to be taken to ensure that the privacy of any identifiable individuals was fully respected. Having enjoyed this very concrete example of the legal issues surrounding privacy, we then went on to enjoy a performance of 'Alice in Wonderland' at the Yvonne Arnaud theatre – an excellent exploration of identity, distortions and unexpected consequences in a parallel world.

VOME (Visualisation and Other Methods of Expression) is an interdisciplinary privacy project funded by the Technology Strategy Board. Further details are available at: http://www.vome.org.uk

# Irish Public Service Card

## Governments around the world are looking for ways to improve the efficiency of public services and a common theme is the use of cards of one form or another to deliver citizen identification and authentication.

Yet cards, by themselves, are not the entire solution to this problem: they need to be developed in the strategic context of an overall public sector identity management programme.

This seems obvious, but it can be very difficult to achieve and in many countries a piecemeal approach to the problem is a real barrier to achieving efficient delivery of public services (especially e-government services).

An example of a more integrated approach is that of the Irish Government, which has established the Standard Authentication Framework Environment (SAFE) programme to create an overall framework for identity management in the public sector.

Recent work has included policy development and a detailed Public Service Card (PSC) definition. One key aspect of SAFE is to provide maximum control to the user over their personal data and ensure that only the minimum data required for a particular transaction is viewable by personnel involved in that transaction.

**By developing the PSC, the Irish Government hopes to provide citizens with a convenient way of accessing public services, while also significantly facilitating the secure identification and authentication of users.**

In addition, the PSC should generate savings through economies of scale and through the use of shared services. The Irish Department of Social Protection (DSP) chose Consult Hyperion to help develop the functional specification for the PSC. Our experience, built up advising governments around the world, means that we were able to help the DSP to quickly understand the key issues in the construction of a national scheme and make informed decisions on how best to proceed with procurement and deployment.

The PSC functional specifications will support a wide variety of requirements, including secure offline and online authentication. All of these functions must, of course, be implemented within a secure environment with the appropriate confidentiality, integrity and availability requirements. The PSC is to be used in a number of ways, beginning with simple functions such as concessionary travel entitlement for pensioners and the payment of benefits. It brings together our expertise in citizen cards and contactless ticketing.

We have helped the DSP to choose a prime contractor to develop the system according to the specifications that we had developed, and are assisting during the implementation phase to ensure that the detailed design and build confirms, and will provide a solid platform for, the launch of further services. These services will reduce costs.

**This is a practical and privacy-centric approach to delivering a national identity management programme for the 21st century, and we think that more countries will follow the Irish example.**


DIGITAL MONEY FORUM

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**Digital Money Forum 2011 – Date for the Diary!**

The 14th annual Consult Hyperion Digital Money Forum will take place on the 2nd-3rd March 2011, at the Guoman Hotel in Charing Cross, London.

Look out for further announcements on the Digital Money blog and the Consult Hyperion website regarding how to book your space at this event.

# Guildford Cricket Festival



Stuart Fiske, Director, with David Whittington from American Express



Enjoying the cricket from the shade of the marquee



Dave Birch, Director, with Will Judge from Transport for London



**On Monday 9th August we invited clients to enjoy a relaxing day of hospitality at the prestigious Guildford Cricket Festival, which was the first day of the LV County Championship match which saw Surrey 1st XI play against Sussex.**

The weather was good to us and the sun shone all day, allowing us to enjoy the game and the copious refreshments from the comfortable shade of our marquee. The day was greatly enjoyed by all who attended, as can be seen from the photos above!

## EEMA Digital Identity Forum 2010

Consult Hyperion joined forces with Identrust to sponsor a Digital Identity Forum track at this year's European e-Identity Management conference in London on 9th-10th June 2010. The track was called "Identity is the new money", and focused on the potential co-operation between the banking, business and government sectors to actually do something about making peoples' lives easier, safer and simpler through digital identity. John Bullard of Identrust chaired speakers from around the industry, and David Birch of Consult Hyperion chaired the expert panel discussion that followed. The track was a great success, attracting more than 40 delegates, and we'd like to thank EEMA for giving us the opportunity to explore the relationship between identity and financial services in such an excellent environment.

*"The Consult Hyperion event at the Guildford Cricket Festival was an enjoyable and constructive opportunity to meet influential new people in the payments industry, and to invest time in debating ideas and opportunities with Consult Hyperion experts."*

**Will Judge,**
**Transport for London.**

# Fraud on Mobile Phone Payment Systems

Using the Guidelines[1] jointly developed by the UK Cards Association (UKCA) and Telecommunications UK Fraud Forum (TUFF) which were endorsed and published by the Home Office as a basis, Consult Hyperion have been taking a lead in raising the awareness of the potential fraud and identity theft opportunities offered to criminals by payment applications and personal data held on mobile phones, and particularly those mobiles equipped with Near Field Communication (NFC) capabilities.




We have been talking to a wide range of players in the public and private sectors, including a number of government departments, Law Enforcement Agencies, banks and credit card scheme fraud forums, phone regulators and TUFF and Mobile Network Operators (MNOs).
We have presented to a number of these organisations to enable them to better understand the landscape, the perceived risks and potential measures to counter those risks, and provide them with an overview of the technology behind the compilation of increasing personal data on mobile phones and possible mobile payment applications being launched in the UK in the near future.

The objective has been to provide them with the background information that they need to understand the potential frauds and thefts that can be committed - and tracked - using these new applications.

Intended for audiences that sometimes have limited technical understanding, the presentations were designed to facilitate and stimulate debate and information sharing between all participants. They also explored the initiatives for fighting mobile crime that are currently underway and where the industry might be able to assist.

## The structure of these presentations was typically:

- A review of the different types of mobile banking and mobile payments applications
- A review of the technology behind the different types of mobile payment application and the storing of significant amounts of personal data on a mobile phone
- Comparison with current retail payments
- A review of other mobile contactless applications
- A review of the ecosystem behind mobile contactless payments and the organisations involved
- A review of the processes used to identify potential fraud, information security risks and cost-effective countermeasures.
- A review of the current initiatives in fighting Mobile Phone Crime, their focus and activities

We are continuing our activities in this fast growing sector and would be pleased to discuss any concerns or issues that you might have. Please contact Len King on 07794 519 608 or at len.king@chyp.com.

1 Guidelines
http://www.theukcardsassociation.org.uk/best_practices/
http://www.prosecurityzone.com/Customisation/News/Government_Programmes/Government_Departments/Government_guidelines_on_NFC_phone_security.asp
http://www.homeoffice.gov.uk/media-centre/press-releases/code-practice-stolen-mobiles

# Meet the team

## Laura McEvoy – Software Engineer



**What hobbies/ pastimes do you have outside of the office?**
I enjoy cooking, eating out and going to the cinema. I have a large extended family and we have a lot of family get-togethers at weekends which I love to attend. I like active holidays – particularly skiing and sailing (yachts – as part of a flotilla somewhere scorching hot!). Whilst I'm at home I go swimming 2-3 times a week.

**What was the last foreign country you visited and why?**
The Canary Islands – I went on a week's relaxing beach holiday there with a friend.

**What exactly were you working on when you were asked these questions?**
I am just finishing off a section of a very large testing project that we have been doing in Hyperlab since the spring. The piece of software and its related components were written by an external company but we have been tasked with making sure it's fully functional!

**What was your first job?**
My first job was as a ski instructor at the dry ski slope here in Guildford, when I was 16. I used to spend my Saturdays teaching kids and adults who were complete beginners up to the point where they would be comfortable being let loose on snow.

**Who had the biggest influence on your career?**
That title would definitely have to go to my father Neil – the managing director and one of the founders of Consult Hyperion. Due to my dad's experience and interest in the IT industry, I've grown up with a lot of current technology and always been fascinated by it and how it works. In the first year of my mathematics degree at the University of Durham I had the opportunity to take a module from an outside department and I chose to take a computer programming module. I loved it and it confirmed the direction in which I wanted my career to go.

**If you could change something about the industry, what would it be?**
I think one of the things that seems to be quite unique with Hyperion is the opportunity for interaction between departments (consultancy and development) and the high level of awareness of different projects and different areas being worked on in the company. I realise this is very difficult for bigger companies to achieve, but I think it's beneficial for everyone here.

**What is the last project you completed?**
Creating a demo for a client around a new idea in the field of payment innovations.

**What is your favourite gadget?**
My favourite gadget is my iPhone! I can't imagine life without it. Invaluable for solving arguments in the pub – you can quickly Google something on the go to find out who's right. I love all the really cool apps you can download from the App Store. It's really revolutionised the mobile phone industry.

For more information about our expertise and experience or to find out how we can help you to exploit new technologies please contact:

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# About us

We are an IT Consultancy that has spent two decades advising leading organisations around the world. We help them to reap real benefits from technological change in the field of secure electronic transactions.

We help organisations to:-

- Evaluate new business concepts
- Develop new products and services
- Test and certify complex systems using advanced techniques and fully-automated robotic test management

We have world-class expertise at every step in the transaction value chain, from Authentication, Access and Networks, to Transactional Services and Applications.

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