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22-28 JANUARY 2013 | COMPUTERWEEKLY.COM

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MOBILE NETWORKING**Cambridgeshire County Council rolls out BYOD for 4,500 users**

Cambridgeshire County Council is to roll out a mobile phone bring your own device (BYOD) scheme for 4,500 users. The local authority is taking the BYOD scheme live on 17 January 2013, according to Alan Shields, strategy and architecture manager for IT services at the council.

IT FOR GOVERNMENT**Government CIO Andy Nelson tipped for Department for Work and Pensions CIO**

Government CIO Andy Nelson has been tipped to become the next CIO at the Department for Work and Pensions (DWP). Whitehall sources have told Computer Weekly that Andy Nelson will take the role, after previous DWP CIO Philip Langsdale passed away over Christmas.

SOFTWARE DEVELOPMENT TOOLS**Global energy management software market to grow in 2013, say analysts**

Businesses will spend more on energy management software during the next three years as they seek to implement new tools and expand existing deployments to improve the efficiency of their IT, according to analyst firm Verdantix.

IT FOR TRANSPORT AND TRAVEL INDUSTRY**United Airlines uses satellite technology to bring Wi-Fi to long haul flights**

United Airlines has fitted its first overseas aircraft with Wi-Fi, enabling long haul travellers to stay connected in the air. United Airlines has kitted out a Boeing 747, which flies both trans-Atlantic and trans-Pacific routes, with Ku-band satellite technology provided by Panasonic Avionics.

CLOUD COMPUTING SERVICES**Cloud security key to BYOD, (ISC)² study shows**

Businesses welcome bring your own device (BYOD) policies for the operational cost savings and user experience, according to the (ISC)² 2013 Global Information Security Workforce Study.

IT FOR FINANCIAL SERVICES**Direct Line begins two-year IT project to decouple from RBS**

Direct Line Group has contracted Capgemini to build and run a new IT system as the insurer separates from its former parent, the Royal Bank of Scotland (RBS). The insurer's corporate and business applications, currently run by RBS, will be migrated to the new system.

ACCESS THE LATEST
IT NEWS VIA RSS FEED**LARGER SCREENS DOMINATE AT TECH SHOWCASE**

The Consumer Electronics Show (CES) was held this month in Las Vegas, with 150,000 attendees viewing the latest technology being showcased by the world's biggest brands including Samsung, Sony, Panasonic, Qualcomm, Lenovo and many more.

Computer Weekly reporter Caroline Baldwin examined the latest gadgets, dominated largely by the big screen. The world's largest mobile screen at 6.1in from Huawei was launched at CES, along with a 110in TV from Samsung and a massive 27in "portable" table PC from Lenovo.

Gadgets for the automated home were also being demonstrated at the show, with software enabling different technologies to talk to each other and become more intelligent.

Innovation was at its highest at the Eureka Park with tech start-ups showcasing a range of tech from speakers and apps, to a finger-tip stylus and smart antennas.



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HACKERS AND CYBERCRIME PREVENTION
Huge botnet infecting more than a million smartphones in China

Security researchers say a huge botnet is running on the smartphones of more than a million unsuspecting mobile users in China. The botnet can allow smartphones infected with Trojan-based malware to be hijacked remotely and potentially used for fraudulent purposes.

IT OPERATIONS MANAGEMENT
CIOs must hunt and harvest digital opportunities

CIOs should spend less time managing internal IT and more time looking at what is happening outside their organisation, according to Gartner. In a global survey of CIOs, Gartner found that IT leaders are continuing to run the IT department, but are not focused on the outside world.

MOBILE NETWORKING
Poor connectivity is the biggest barrier to NHS mobile working

Poor connectivity has been outlined as the biggest barrier to mobile working in the NHS, according to a study by the Department of Health. The National Mobile Health Worker project introduced mobile devices across 11 NHS sites over a 15-month period. The report found that staff working on mobile devices were able to spend twice as long with patients, while travel was reduced by a third.

MANAGING IT AND BUSINESS ISSUES
SAP reports 14% revenue increase, operating profitability softens

SAP made an operating profit of €4.06bn on €16.22bn revenue in 2012, a margin of 25%. This contrasts with an operating margin of 34.3% in 2011, a fall of 9.3 percentage points. These are from the company's preliminary financial results for the fourth quarter and full year ended 31 December 2012.

IT FOR PUBLIC SECTOR
Hunt wants paperless NHS by 2018

The NHS plans to go paperless by 2018, health secretary Jeremy Hunt has announced. All patients should have compatible digital records so their health information can follow them around the health and social care system by 2018, he will say in a speech to think tank Policy Exchange.

IT RISK MANAGEMENT
Malware hits US power plants

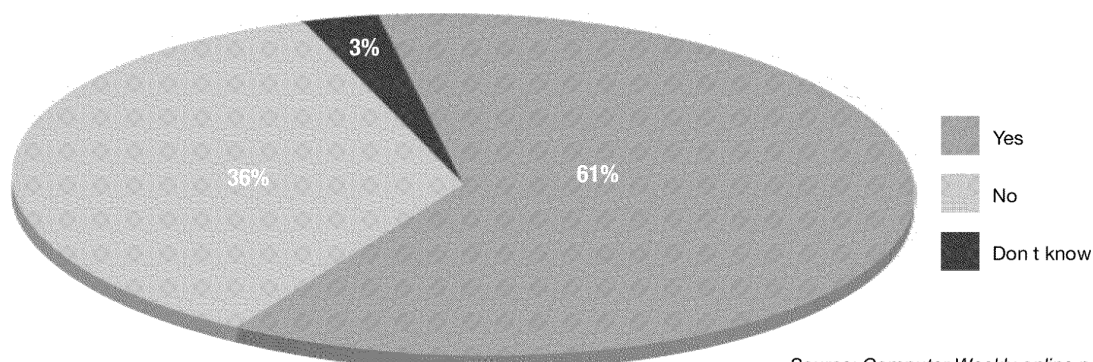
Malware has infected two US power plants in recent months, the US Cyber Emergency Readiness Team (Cert) has revealed. The malware infected each plant's system via an infected USB stick connected to critical IT systems, according to the US Cert's industrial control systems newsletter. ■



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OUTSOURCING POLL

Should local government outsource services to private companies?



Source: Computer Weekly online poll

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AMNESTY FOR
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EVIDENCE**

**85 SUB-
POSTMASTERS
SEEK LEGAL
SUPPORT IN
CLAIMS AGAINST
POST OFFICE
COMPUTER
SYSTEM**

Post Office agrees to investigation into 'error prone' accounting system

Amnesty announcement follows pressure to examine discrepancies that have seen dozens of postmasters charged or jailed. Karl Flinders reports

A troublesome IT system that set out to modernise the Post Office in 1996 is under the spotlight as the Post Office investigates claims that its Horizon accounting system is error prone.

Over the years, dozens of postmasters have been charged and even jailed for accounting shortfalls, while others have had to make up cash discrepancies following prosecutions (see *case studies on page 5*).

Despite years of allegations that the Horizon system – which was developed by ICL/Fujitsu Services – is at fault for many accounting shortfalls, the Post Office has unrelentingly defended it.

In October 2011, 85 sub-postmasters sought legal support in claims against the Post Office computer system.

And following pressure from organisations, including the Justice for Sub-postmasters Alliance (JFSA), the Post Office is now calling for evidence from people that have worked with the Horizon accounting system. This will support its investigation – which will be carried out by independent forensics experts 2nd Sight – into claims that agents have been wrongly accused of false accounting.

The Post Office wants people to come forward without fear of reprisal.

Earlier this month, Computer Weekly reported that the Post Office had reconsidered its stance on the Horizon system and is working with the JFSA to look closer at the allegations.

In its Branch Focus internal update to branches on Friday, 11 January, the Post Office called on people to come forward with information.

"The Post Office and JFSA have signed an agreement to ensure that any agent, contractor or employee with any evidence can feel free to report their observations," it added.

The agreement ensures evidence can be



THINKSTOCK

given without fear of any comeback from the Post Office, said Alan Bates, chairman of the JFSA. Bates previously worked at a post office in Llandudno, north Wales.

"Since the Post Office published its call for evidence, we have had a steady stream of calls from people with information," said Bates. He estimates that a couple of dozen people have contacted the JFSA.

The Post Office has asked for submissions before 28 February this year.

As long ago as 2009, Computer Weekly spoke to some of the people at the heart of the alleged problems caused by the system.

CASE STUDY 1: LEE CASTLETON

Lee Castleton was postmaster at Bridlington Post Office in east Yorkshire. His problems started in January 2004, and he claimed he could not get help from the Post Office.

"Mis-balances continued for 12 weeks. I spent hours going through accounts, trying to find out what had happened. It was baffling," he said.

Castleton rang the Horizon helpdesk, which is run by the Post Office, and asked repeatedly for help and a system check, but said they did very little.

After 12 weeks, Castleton was suspended

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and the Post Office told him he had to pay for the losses. "I decided to contest it in the civil court, because I hadn't done anything wrong," he said.

Castleton could not afford lawyers in the High Court, or pay an IT expert witness to look at the system logs for him. He argued that the discrepancy in his accounts had been created by the computer. But the judge said that the deficiencies were real, not illusory, and, as such, were evidence that the branch had not been managed properly.

"The losses must have been caused by his own error or that of his assistants," the judgment said.

Under their contract with the Post Office, postmasters are liable for any losses that are due to carelessness, negligence or error. Castleton was also liable for the company's legal costs.

"The Post Office really put me through the mangle," he said. "I owed £27,000 for the deficits, and £321,000 altogether. I was in too deep - I see that now. The whole thing has been heartbreaking."

CASE STUDY 2: JO HAMILTON

Jo Hamilton was a postmistress in South Warnborough, Hampshire between 2003 and 2005.

Hamilton started experiencing problems in October 2003. She entered every transaction via the touchscreen Horizon till and, at the end of the week, the computer would tell her how much money she should have.

"One time, it said I was down £2,000, so I rang the Horizon helpdesk. The supervisor told me to do various things, and three minutes later I was £4,000 down. Whatever I did after that, I couldn't get it to come up any different," she said.

The Post Office told her she owed the money, and took repayments out of her monthly wages.

"It made me reluctant to phone them, because it was just crazy - when I asked for help, it just doubled the amount and said I owed it money."

Hamilton's problems worsened: "Every week the system would come up telling me how much I should have in there. I knew it wasn't the right amount, but I didn't know what to do. I couldn't ring them up, because

HISTORY OF HORIZON

May 1996: ICL/Fujitsu services beats off competition and lands the £1bn contract to modernise benefits systems and automate 18,500 post offices, known as Pathway.

August 1997: DSS ministers tell Treasury they are "extremely concerned" about delays.

September 1997: PA Consulting commissioned to review project after "consistent and chronic slippage in delivery dates."

March 1998: Ministers call for second independent report, led by Adrian Montague.

April 1998: Department of Trade & Industry denies problems and says "subject to successful completion" of trials, "national roll-out would start in April 1999 and be completed before the end of 2000". Post Office takes over line management.

October 1998: Deadline for live trial of system is passed.

November 1998: Secretary of state, DTI, Peter Mandelson, admits delays. He says he is "confident deadlines would be met."

December 1998: Post Office Counters and ICL/Fujitsu Services agree restructuring of project with both sharing £750m of losses.

September 1999: A Commons committee report concludes the project was "blighted from the outset."

2000: Pathway project renamed Horizon.

I just didn't have the money to pay it all back. So I signed the accounts each week, saying there was a certain amount in there when I knew there wasn't. I know it was dishonest, but I didn't steal any money."

Post Office auditors visited the branch in March 2005 and told Hamilton she owed £36,000. They prosecuted her for theft and 14 counts of false accounting, but later dropped the theft charge.

Hamilton said the case did not deal with the issue of IT. She pleaded guilty and was given a year's probation. Her house was remortgaged to pay the money, and the villagers in South Warnborough collected £9,000 between them to help.

Hamilton said at the time: "In 18 months, I will have finished paying back the villagers, but won't have paid off our mortgage." ■

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How organisations use private cloud to cut development time and costs

Cloud computing cuts the time and expense of developing software, which will be crucial if banks are to meet demand for mobile platforms, says Karl Flinders

Barclays bank says its decision to use private cloud and Linux will help it cut development costs and compete in the mobile banking sector.

This year banks will invest in mobile banking platforms as the business case for these investments becomes easier to make with increasing demand. Over a billion people will use mobile handsets to access banking services by the end of 2017, according to the results of a study by Juniper Research.

So far, UK banks have largely emulated their online banking platforms on smartphones but - with increased demand for additional services on top of services such as payments and balance checking - this will change in 2013.

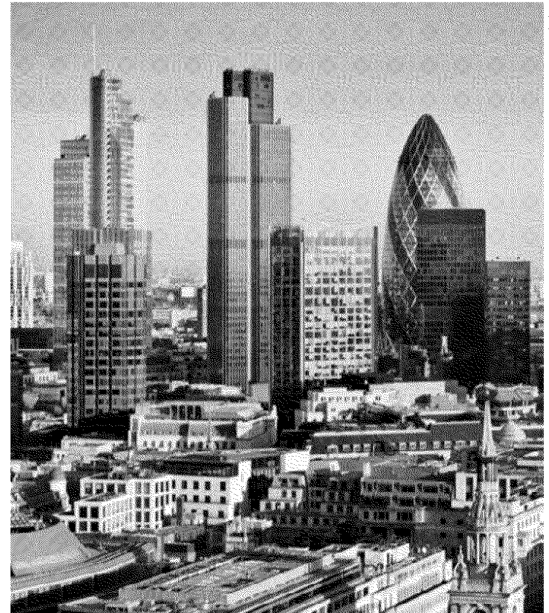
Banks in Asia and the US offer customers value-added services such as personalised, location-based offers. Consumers even choose banks based on mobile banking apps in Asia, said Rik Turner, financial services analyst at Ovum.

**“BY THE TIME I ARRIVED
IN LONDON – ABOUT
ONE AND A HALF HOURS
LATER – THE REPLACEMENT
SYSTEM ON THE AWS
CLOUD WAS COMPLETE”**

PAUL ARMSTRONG, HAVEN POWER

European banks lag behind Asia and North America and software development investments are expected to increase.

Barclays is a good example. About 12



European banks will develop mobile banking to the level already enjoyed by bank customers in Asia and the US

months ago the bank, under the leadership of COO for Barclays' retail and business banking Shaygan Kheradpir, embarked on a programme of mobile developments.

In creating its mobile money platform, Barclays is using a private cloud and Linux to cut costs.

"This has delivered massive re-use of software, since their components are written once and used openly by many internal applications," said a Barclays spokesman.

The costs of developing apps such as Pingit - which allows customers to make small payments with their mobile phones - will be reduced by 90%, said Barclays.

The bank has added over a dozen updates this year to Pingit and is now expanding internationally. "Our deployment speed for updates is 12 times faster than the old systems, which would have required us to re-write from scratch," said Barclays.

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Barclays said Pingit was the first in a series of mobile developments that will sit on a mobile money platform.

The private cloud means that, rather than using a website that sits on top of core IT infrastructure to enable mobile payments, the Pingit app plugs directly into it.

"This is built in a secure private cloud rather than an over-the-top application," said Kheradpir.

Employing private cloud for reducing the costs and time associated with software development remains one of the most proven uses of cloud computing.

Electricity supplier Haven Power is using the Amazon Web Services (AWS) cloud to provide cost-effective access to computing power, when required, to develop systems.

CLOUD SAVES TIME

The power of the cloud was demonstrated to Haven Power when it had an issue with a pricing server.

Paul Armstrong, business systems manager at Haven Power, said: "When we had a problem with a system, I was telephoned, while travelling from Ipswich to London, by IT staff to ask whether they should build a replacement. We agreed to do this using the AWS public cloud and by the time I arrived in London (about one and a half hours later) it was complete."

Armstrong said it would normally take a few days to complete such a task if the company had the computing capacity available in-house. If it did not, the process would take a week, he said.

The costs of developing and testing new applications can also be cut dramatically.

In 2010, Wipro CTO Vijay Kumar told Computer Weekly about the benefits of

using the cloud to develop software. Wipro tested cloud computing in relation to its software development business by building an

internal cloud and connecting between 350 and 500 people to it.

It found that setting up a software project is faster and more cost-effective in a cloud.

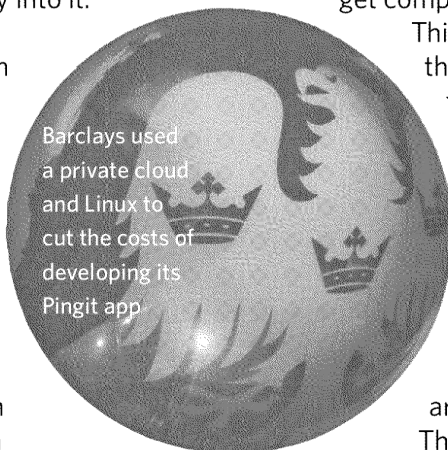
Traditionally, when Wipro set up a software development project, the team would have to get computing power from servers.

This would take time because they would have to request the kit, have the request approved and then wait for it to arrive.

But through the cloud an email is sent to the cloud management asking for the computing power and it is allocated; the time and cost savings are easy to identify.

The pilot found it took just 36 minutes to set up a network for a software project rather than the 43 days using traditional practices.

The other substantial advantage lies in removing waste, as computing power can be more accurately allocated. Kumar said traditional server utilisation levels fell between 20% and 30%. ■

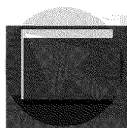


SUPERCOMPUTER BUILT IN A MATTER OF HOURS

A pharmaceutical company was testing a new product and required the equivalent of a 30,000-node supercomputer to run molecular modelling. To be able to build a super computer it contacted a company known as Cycle Computing.

The firm had to launch the system across three Amazon Web Services regions simultaneously - US West (California), US East (Virginia) and EU West (Ireland). There was 30TB of memory available on the compute nodes, which could hold the entire raw Wikipedia database five times over.

To build a system of this scale traditionally would take many months and millions of dollars. By using AWS, Cycle Computing was able to build the supercomputer in hours and at a cost of less than \$10,000, or \$1,279 per hour.



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How did you use IT to improve your business?**

ComputerWeekly

Networking

European User Awards

The Computer Weekly European User Awards for Networking aims to recognise innovation in network design and implementation, use of mobile technology, and the use of networking and mobile applications to improve user businesses.

Judges will review nominations across five categories:

- Best Technology Innovation
- Supplier of the Year
- Private Sector Project
- Public Sector Project
- Cloud Innovation Awards

How will the awards be judged?

Our expert judges will assess the entries with the following criteria in mind: overall innovation, improved system performance, cost reduction, improved management capabilities, new use in marketplace or improved overall business processes/efficiencies.

Who can enter?

IT managers and IT departments as well as resellers or vendors that wish to enter on behalf of a customer.

Judges for the awards include:



quocirca

Submit your entry by 31st January and get your technology innovation recognised!
For the full 2013 schedule, category descriptions and judging criteria visit:
computerweekly.com/CWUserAwards

Don't have a networking project?

As a year-long award series, we are also looking for innovative approaches to using technology in the key areas of storage; security; datacentre and virtualisation; and business software.



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DISTRUST PUBLIC
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How News International seized a commercial advantage with cloud

Archana Venkatraman relates how adopting public cloud services enabled the publisher to save costs and exploit digital channels on an Amazon platform

Adopting public cloud services almost two years ago has helped publisher News International save money on hardware expenditure and improve scalability, as well as enter new digital channels such as iOS and Android markets quickly, gaining a commercial advantage.

It all started in August 2010 when Paul Cheesbrough joined as the chief information officer (CIO) of News International, the publisher of *the Times*, *the Sunday Times* and *the Sun* in the UK.

"Two and a half years ago, Paul came in as CIO and hired a few people, including me," said Ian McDonald, head of infrastructure and cloud at News International. "We all had some experience of using cloud computing and wanted to adopt it to improve our brands' time to market."

The IT team decided to adopt public over private cloud for its higher scalability and cheaper running costs. The team had virtualised 80% of its infrastructure using VMware products but decided not to use VMware's private cloud services. It opted instead for Amazon Web Services public cloud, as the team was familiar with the service.

"At that time Windows Azure had not got as underway as AWS and Amazon seemed the largest player who could innovate at a pace suitable to us," said McDonald.

MOUNTING SERVICES

After chalking out its cloud strategy in detail for six months, the IT team began mounting its services on the AWS platform in February 2011.

It started initially with Amazon Elastic Compute Cloud (Amazon EC2) – the service that provides organisations with an unlimited set of virtual machines. It has since adopted AWS's other services including Amazon Simple Storage Service (Amazon



S3) for storage, RDS for database, ELB for load-balancing, CloudWatch for monitoring and Elastic MapReduce for data analysis.

When it started, the team had a clear objective of consolidating its IT as well as reducing on-premises infrastructure. Today, more than a third of its server estate is running on AWS.

CLOUD-FIRST FOR COMPETITIVE ADVANTAGE

And just like the parent company News Corporation, the UK News International team has adopted a cloud-first strategy and is considering building all new services for the cloud.

But what has made the IT team trust the AWS public cloud so much? For one, the organisation has saved between £1m and £1.5m on capital expenditure in the last two years. McDonald is also projecting another £3m savings in the next three years on server refreshes to update its internal datacentre.

In addition to the cost savings, the IT team sees the high degree of scalability and flexibility as one of the biggest advantages of the public cloud.

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While the publisher does not expect traffic to experience seasonal spikes like retailers, McDonald explains that having a high degree of scalability is crucial, as it is impossible to forecast the number of people that will access its digital service.

**“WE WANT TO BE ONE
OF THE EARLY ADOPTERS
TO HAVE A COMMERCIAL
ADVANTAGE”**

**IAN McDONALD,
NEWS INTERNATIONAL**

DEALING WITH LARGE VOLUMES OF TRAFFIC

For instance, the Times' "Cities fit for cycling" campaign attracted a huge amount of traffic.

"You can never tell how much or how quickly any digital service will be accessed and you must be prepared to scale up the resources quickly to meet the demand," said Dominic Courtney, manager for system engineering at News International

Courtney also highlights the benefits of AWS's auto-scalability features.

"Just recently, we were doing crowd-testing on an application and wanted to scale the resources up. In our traditional environment, it would have taken us at least two days to scale up the capacity, whereas with AWS auto-scaling, we did it in under an hour," he said.

But the benefits do not end there.

"AWS cloud has been particularly useful for us from a big data perspective," said Courtney. "It has made managing thousands

of compute resources easy."

The public cloud has also helped the IT

team capture and analyse big data customer behaviour insights.

"Cloud services have opened so many

more opportunities for us that were unthinkable with our traditional infrastructure," McDonald said. It took the IT team too long to respond to customers' digital needs with its legacy infrastructure.

The IT team's faith in public cloud is telling when McDonald said: "Our long-term goal is to stop depending on an internal datacentre and use AWS for most IT services."

It has already shifted sensitive applications and services such as its paywall and content delivery system on to the cloud platform.

News International's UK team would like to have at least 75% of its applications and services running on the public cloud in the next three years.

The team has also started migrating its existing enterprise workloads on to the AWS platform to meet its cloud objective.

Migrating existing apps built for an in-house datacentre is the IT department's biggest challenge, Courtney said. Hence the cloud-first strategy for the new services.

OVERCOMING CLOUD SECURITY ISSUES

But doesn't cloud outages, lack of interoperability or security risks worry the News International IT team?

"The security risks you run whether internal or on the cloud are more or less the same," McDonald said. "Besides, we also found that AWS offered a lower glitch-rate than our in-house datacentre."

As for the lack of interoperability, McDonald explained that, as most of its applications are built with open source technologies, it has not encountered interoperability issues.

But there are risks on the cloud and that's why it is important to pay for on-going support as well as undergo constant training to overcome challenges, Courtney advises.

Having reaped benefits such as lower costs, high degree of scalability, and improved time to market of the AWS public cloud, McDonald and his team are already developing a proof of concept to move mission-critical applications such as its SAP ERP system on to the AWS cloud.

"We are still at the planning stages and will take a year to go live but we want to be one of the early adopters to have a commercial advantage," McDonald concludes. ■

➤ E-GUIDE: PUBLIC CLOUD VS. VSPHERE

➤ SECURITY REMAINS BIGGEST HURDLE TO CLOUD

➤ INTEGRATING PRIVATE AND PUBLIC CLOUDS

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How the IT team delivered festive sales growth online at John Lewis

John Lewis CIO Paul Coby talks to Angelica Mari about preparing for the busiest time of the year and the challenges which come afterward

CW500 INTERVIEW Paul Coby joined department store chain John Lewis in March 2011, after many years as CIO at

British Airways. He has embraced what he calls the "retail revolution" brought about by technology, and is leading the IT aspects of the firm's "omnichannel" retail vision to combine physical and digital worlds into a seamless shopping experience. The store posted strong online sales over the Christmas period, growing 44%. Computer Weekly talked to Coby during the build-up to the festive peak to find out how the IT team had prepared.

WHAT ARE THE MAIN HIGHLIGHTS OF TECHNOLOGY-RELATED WORK DURING THE RUN-UP TO CHRISTMAS-

Something that was really exciting for us was the launch of our much-awaited Snowman ad. As we did last year, we launched the ad on social media before it went live on TV and we found that works extremely well. We had well over 2.5 million views and that is really exciting to see.

We also had a rather nice John Lewis Christmas annual that we launched as an iPad app, downloadable free from the App store. It is a gorgeous printed annual but also an app.

The main point is we are showing how we are integrating conventional advertising with the social media world and finding that things like this do provide a new dimension in connecting with customers.

WOULD IT BE RIGHT TO SAY THAT YOUR ARRIVAL MEANT A NEW PUSH WHEN IT COMES TO TECHNOLOGY-LED, CUSTOMER-FOCUSED INITIATIVES-

I wish I could say it was all down to me. I



John Lewis CIO Paul Coby

have obviously been 2,000% behind our "omnichannel" retail vision and working hard to support our colleagues in delivering that. Omnichannel means that when you shop, the experience feels seamless between channels. It is about creating what we believe is a new way people will shop and not just about being in a building or online, but joining these things up.

At John Lewis it is all about changing the retail world together and I think that we are starting on that. Look at how we really integrated the Christmas experience online, on mobile, Twitter, YouTube. You see how we are talking about things in a very joined up way.

I would also say that we are leading the path in how omnichannel will look. But there is a lot more to come and my colleagues and I are working together to create a picture of how shopping will look like.

CAN YOU GIVE AN EXAMPLE OF A RECENT CLIENT-FACING INITIATIVE THAT RELIED HEAVILY ON TECHNOLOGY-

One of the things I can claim to be a part of is the store in Exeter. We have taken a

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building that is half the size of one of our conventional stores and the use of smart IT, integrated with the shop experience enabled us to sell a much larger share of our assortment in a much smaller building.

We filled the wall with designs and enabled customers to go to a JohnLewis.com terminal where they could see all the assortment, colours and collect that in-store, have it delivered or pick it up later. It is a great example of how we are starting to integrate both worlds. We also put up screens around the store which are integrated to the product merchandising system in a visual and interactive way with lots of information about the products.

HAT HAPPENS TO OTHER MAJOR ONGOING BACK-OFFICE PROJECTS SUCH AS YOUR ELECTRONIC POINT-OF-SALE (EPOS) ROLL-OUT DURING THE BUILD-UP TO CHRISTMAS-

In preparation for Christmas you stop changing things. It is not the time to make changes to anything. What I have learned is that the retail year is divided into phases. There is the first part of year when you are doing IT work, then there is the clearance in the summer, then a short window in the autumn where you can do some more IT work and after that you shut it all down and support the business as you go through what will be an extremely busy time.

With the Epos system in particular, we rolled it out throughout spring, then stopped in the summer and resumed in the autumn. We looked at our infrastructure, expanded capacity and got people trained. Then everyone starts getting ready for the peak.

HAT DID YOU DO WITH YOUR WEBSITE TO ENSURE THE ONLINE SET-UP COPED WITH DEMAND DURING THE FESTIVE SEASON-

We looked at the forecast demand, worked with our infrastructure colleagues and increased the process and capacity, as well

as how we monitor the site through the peak.

Every year we look at the demand and the growth online, and then we put new resources behind it. The normal IT budget has Christmas built into it - that goes

into normal planning, a peak in the summer and a very big peak in Christmas. It is not something we look at in the middle of the year and say, "Oh my goodness, I better set some money aside for Christmas". When

"IT IS NOT SOMETHING WE LOOK AT IN THE MIDDLE OF THE YEAR AND SAY, 'OH MY GOODNESS, I BETTER SET SOME MONEY ASIDE FOR CHRISTMAS'."

you look at your normal capacity and volume planning you build that in, it is just life.

HAT ARE THE MAIN AREAS OF FOCUS FOR THE COMING YEAR-

We have an innovation initiative where we have companies pitching ideas on how we can use technology to enable the business and that was led by two new members of our leadership team - Sarah Venning, head of IT relationships and former Sainsbury's chief technology officer, Julian Burnett, now head of IT architecture.

We have some great ideas in social media and mobile coming in as a result of that initiative - for example, a company called Black Marble has some really interesting ideas about how we can manage queues.

The Epos roll-out has gone very well so far and that replaces systems from the 1990s. We are also looking at major investments in mid- and back-office, such as order management systems for online and shops to enable orders to be tracked in a better way.

As part of a business-led supply chain review, we are also looking at potential investments in ERP (enterprise resource planning) systems. We haven't got what you would recognise as an ERP system, so we would be basically replacing a mix of packaged systems and elements of proprietary tools. We have a request for information out at present so I think we will be deciding that early this year. ■

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➤ TOP 10 RETAIL IT STORIES OF 2012

➤ RETAILERS ARE BEING LET DOWN BY POOR ERP

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Digital health records need an injection of realism and positivity

The issue of electronic patient records in the NHS is back in the headlines after minister Jeremy Hunt called for the health service to be "paperless" by 2018. After £6bn or so of taxpayers' money failed to introduce a nationwide electronic records scheme in the ill-fated National Programme for IT, it's inevitably a subject of much debate and cynicism – justifiably so, in the circumstances.

But putting aside the history, the concerns about NHS IT capability and about privacy and data protection, the over-riding consideration here must be that surely it is patently obvious the NHS must have nationwide electronic records, accessible online by patients, if it is to function as any sort of modern health provider.

The issue cannot be whether or not we have online patient records, but how we avoid the IT disasters of the past and overcome the inevitable security and privacy fears in doing so. It cannot be a sensible debate if it starts with, "Don't do it, the NHS will never get the IT right", or, "The privacy issues of nationwide digital records are too great" – both of which have been suggested.

Can anyone seriously claim that while we live more of our lives online, sharing our personal information, even managing our finances on the web, that somehow our medical records should not be a part of that world?

It would be ludicrous to think we could have an NHS without online patient records. HMV managers thought they didn't need to worry about the online world, and look what happened to them. Ten years from now, medical practitioners will wonder how they managed without electronic records.

The vast majority of us already have digital medical records – they sit in our GPs' systems, lonely and isolated, unreadable to anyone but our GP practice, useless if we need healthcare anywhere else. The challenge is to get the people and process issues right – the technology is perfectly capable of delivering.

Nobody wants untold billions of pounds to be wasted again on big, bespoke IT systems that don't work. But the benefits of digital medical records mean the NHS must try again – and get it right this time. ■

Bryan Glick
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**NEXT
GENERATION
DATACENTRES
THE CLOUD**

Deliver IT from a service-based hub

Andrew Buss looks at how the latest cloud computing and datacentre technology trends fit in with the evolving IT requirements of the modern business

A number of IT suppliers have claimed that owning your own infrastructure is a dead end and everything will move into the public cloud as quickly as we can make it happen.

While this vision may be great at starting what is usually a pretty heated discussion, Freeform Dynamics recently surveyed 481 enterprises to understand what is really happening with cloud adoption and datacentre evolution.

As it turns out, this vision is about as far removed from the reality of running and delivering IT services as it is possible to get for most companies. A minority of around 15% of companies see themselves as running most of their IT in the public cloud within the next three years.

As it turns out, this group is made up mainly of smaller businesses that do not have a large established IT infrastructure in place and are able to grow while using externally provided services.

Most businesses have existing IT infrastructure and operations which cannot just disappear. Very few companies can afford the luxury of starting again with an IT transformation initiative that sweeps away the old to replace it with something brand new.

The preferred approach is to build a modern, optimised environment for running new workloads and to gradually move older workloads into the new environment. The end result is that rather than workloads moving externally, most firms are looking to improve their internal environment to become more responsive, dynamic and efficient.

It is no surprise that about a third of respondents see themselves as delivering most of their IT services through a private cloud in three years and around half in five years. This may be a challenge to achieve for many, given their starting point today is one where applications, servers, storage and networking are typically bought and operated



in silos that do not integrate very well together. Getting funding to implement a shared service infrastructure with joined-up management and automation will be a key priority in 2013.

The move to private cloud does not mean that the public cloud is not relevant for the mainstream future of IT service delivery, however. Many popular business applications are available as software as a service (SaaS). In addition, a growing number of companies already use external IT services, such as infrastructure as a service (IaaS).

The modern IT department is gradually changing from being a technology provider of individual applications running on dedicated systems to become more dynamic with a focus on delivering an overall service to the business rather than the discrete components.

With the service being the main focus, there is a lot more freedom to consider how to source and run what the business needs. In many cases, this will most likely still be the internal IT infrastructure, but in the form of a private cloud. But knowing the requirements of the service and what it requires to deliver it internally enables an informed decision to be made on whether the service may be better run externally – whether for cost, performance, reliability or some other reason.

The service may be run full time out of the public cloud, or just moved there if circumstances demand it, before being brought back in house in a hybrid cloud approach.

The result of this flexibility of sourcing is that IT is becoming less a technology provider and more a services hub, able to translate demanding business technology needs into a set of service requirements which will be fulfilled mainly from the datacentre and augmented by third-party services. ■

Andrew Buss is service director at Freeform Dynamics. This is an edited version. Read the full article online.

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CONSULT EXPERTS TO GET THE MOST OUT OF A SaaS ROLL-OUT

Businesses often lack in-house expertise and services providers can help them with the project planning, design and up-to-date practices. Liz Herbert reports

Software-as-a-service (SaaS) buyers often lack in-house expertise related to how they can get the most value out of SaaS tools; they lack the technology know-how and understanding, and they often could benefit from third-party process consulting on current best practices on best-in-class business strategies.

BUSINESS PROCESS DESIGN

Many clients use a SaaS roll-out as an opportunity to start afresh and throw out their old, over-customised packaged applications — not just from a technology standpoint but from a business process standpoint as well. But often, they do not know where to start, so they call in a third-party expert to help them with the design.

The provider can help them with up-to-date best practices for their industry or for a specific process area and can help them create the design in a way that takes full advantage of the tool and keeps customisation efforts low. The best-fit providers will have a combination of deep industry and process knowledge, as well as deep technology expertise on the tools and modules you are using.

SaaS projects generally follow a faster, more iterative timeline than traditional on-premises planning cycles. Release cycles can be much faster — in the range of weeks in most cases for each phase of the project. Project managers who have limited or no SaaS experience will benefit from third-party help for project planning and design.

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Organisations that get the most value out of SaaS typically move to a much faster, more agile environment, with business playing a more active role. This type of disruption requires significant change to nearly all roles that the technology touches. While some clients may be able to manage this on their own, many will benefit from third-party change management help and a dedicated, focused initiative on making the change.

SaaS is much easier to configure than traditional on-premises applications. But it still requires technical knowledge — and a growing breadth of this knowledge. Leading platforms like Salesforce.com are expanding in Ruby On Rails and Java for extensibility, in addition to their own proprietary languages Apex and sforce. Most other SaaS offerings have a similar trajectory.

Additionally, integration will either require coding or knowledge of integration tools such as Boomi, Cast Iron, and Web Methods. Many firms need third-party experts for this type of technology expertise. Even if the long-term plan is to build capability in-house, many lack these skills today.

MARKET CROWDED WITH GLOBAL AND BOUTIQUE OPTIONS

SaaS systems integration is not new; offerings have been on the market as long as SaaS options themselves, going back more than a decade. But the past five years have seen a significant rise in demand for SaaS systems integration. Today's market consists of a wide range of services providers for clients to navigate — from large global providers to India-centric firms to smaller-focused boutiques.

Today's leading SaaS packages — such as Salesforce.com, SuccessFactors, Workday, and RightNow Technologies — are primarily horizontal in nature. But the consultants who work in the ecosystem surrounding these applications offer deep industry skills, industry-specific templates, and know-how and lessons learned from deploying these applications within a particular sector. For example, Cognizant and Accenture have substantial expertise with Veeva, a life sciences add-on for Salesforce.com.

IT departments have dozens of strong choices to use for SaaS services work, but their geographic needs may whittle down the pool very quickly. With smaller pools of resources at the consultancies, resources will be tougher to find depending on the geographic scope of project needs. Resources are easiest to find in North America, and additional capabilities are growing worldwide, with the UK and Asia Pacific (including India) leading the way.

Some SaaS work can leverage offshore or off-site capability, but the heavy dependence on business process design and lower focus on technical elements such as customisation and testing may cause clients to look more toward on-site resources versus remote delivery.

Global multinationals have leveraged deep pockets and breadth of technology and business process expertise. However, boutique firms are highly dedicated to SaaS solutions, with Salesforce.com representing the lion's share of their work today. Increasingly, solutions like Google Apps, Workday, Amazon, SaaS, cloud and mobile applications are critical to their strategy. These firms are typically more nimble in their approach and take more of an iterative approach than some of the larger systems integrators (SIs).

When choosing a SaaS integration partner, bear in mind that technology expertise varies greatly, with many practices still emerging. You should consider your own SaaS roadmap when selecting a partner and evaluate your SI's SaaS R&D strategy. ■

ORGANISATIONS THAT GET THE MOST VALUE OUT OF SaaS TYPICALLY MOVE TO A MUCH FASTER, MORE AGILE ENVIRONMENT

*This is an extract from the Forrester report: Navigate The SaaS Implementation Partner Landscape.
Liz Herbert is principal analyst at Forrester Research serving sourcing & supplier management professionals.*

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THE IT REVOLUTIONISING AIR TRAVEL

PHOTO STORY THE TECHNOLOGY DRIVING AIR TRAFFIC CONTROL



THE IT CHALLENGES BEHIND HEATHROW'S TERMINAL 2

The airport's latest construction project is building in capacity for future technology trends in travel such as automated check-in, writes Bill Goodwin

Heathrow's Terminal 2 is a far cry from the dark claustrophobic corridors often associated with Britain's biggest airport. The Norman Foster-designed building is still a building site, but already it looks impressive, with its distinctive undulating roof, natural light and feeling of space. By 2014, the £2.5bn terminal – the future home of the Star Alliance of airlines – will deliver 20 million passengers a year with a degree of comfort worthy of an international hub airport. Its satellite, Terminal 2B, will have capacity for another 10 million.

Technology underpins the whole project. Heathrow is spending more than £200m on IT and network infrastructure, designed to speed passengers through the airport as quickly and comfortably as possible.

The terminal will eventually feature automatic baggage drops and check-ins, boarding passes delivered to passengers' mobile phones, free Wi-Fi for passengers and CCTV systems that will automatically scan for queues.

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To make all of this possible, Heathrow is installing more than 2,000km of network cable, 30km of radio cable, 12,000 CCTV cameras, 59 large communications rooms holding servers and networking equipment and 30,000 network points. Neil Clark, CIO of Heathrow, is responsible for making sure the equipment is in place and working by 2014.

Clark became CIO in 2012, taking over from the late Philip Langsdale, who moved on to the Department for Work and Pensions before his untimely death in December.

"One of the biggest challenges is that we are building the terminal in the middle of a live runway operation in the heart of the airport," says Clark.

That poses some logistical challenges. Building work near the runway, for example, is limited to a three- or four-hour window in the early hours of the morning when there are no planes flying out of Heathrow.

Removing the live communications infrastructure from Heathrow's soon-to-be-demolished control tower was a particular challenge, says Clark.

It took a year and a half for engineers to identify each piece of equipment and take it out without disrupting the network.

"It was very difficult because the technology has been in there for decades," he says. "The old tower had asbestos in it, so that was another challenge."

LESSONS FROM T5

Clark is confident Heathrow learned important lessons from the Terminal 5 development, which hit the headlines for all the wrong reasons nearly five years ago.

Technical failures and problems with the baggage system led to cancelled flights and left hundreds of passengers temporarily stranded.

This time around, Heathrow is taking no chances.

The airport has built an off-site facility - essentially a mini-airport - where engineers can thoroughly evaluate equipment before it is installed in Terminal 2.

"We are testing everything there and we know that once we have got that right, we can bring the equipment on-site, pre-configured. That way, the risks when you are on-site in the middle of a construction programme are much lower," says Clark.

Each new item of equipment has to be tested and given formal approval before it is duplicated throughout the rest of the terminal.

"The other principle we learned is to get the first of our types right, whether it's a camera, a PC or a flight information display," says Clark.

Despite the huge scale of the project, the core IT team on Terminal 2 is surprisingly small - little more than 30 people.

**"WE LOST A
LOT OF TIME
ON TERMINAL
5 ON POOR
COORDINATION"**

**ANDY LIMB,
PROJECT MANAGER**

HEATHROW TERMINAL 2 CONTRACTORS

Fujitsu has a £20m contract to install networks for the check-in and security areas, retail outlets and baggage reconciliation;

Tyco is supplying the cameras and doors;

Schneider Electric is delivering the SCADA systems;

Atkins is responsible for the radio and Wi-Fi systems;

Mott MacDonald is responsible for the technology design work, with Firstco;

Capgemini has the contract to manage Heathrow's datacentres, as part of a £100m outsourcing contract;

Siemens is delivering the baggage system.

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Heathrow has outsourced most of the work to specialist IT and network contractors, leaving the core team to focus on the planning and scheduling.

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Andy Limb, senior IT project manager, says the planning team has also learned valuable lessons from the Terminal 5 experience.

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"We lost a lot of time on Terminal 5 on poor coordination, where there were revisits. For example, you would have a camera person go back three or four times to the same job," Limb says.

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Work on T2 is planned meticulously in advance, with each job displayed on tracking charts, eight weeks ahead of time to keep contractors' trips to the construction site to a minimum.

For example, contractors installed the finished floor surfaces, protecting them with wooden coverings, while the building work was progressing, to minimise the number of trips they need to make to the terminal.

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THE IT INFRASTRUCTURE

Designers have used mathematical modelling to understand how passengers will move through the terminal and work out how best to design the concourse, says Clark.

In the future, passengers' journeys through the airport will become increasingly automated and less dependent on airport and airline staff.

The airport is running trials of automated bag drops. It is developing automatic security gates that could replace existing manual passport and ticket checks.

It is also looking to install self-boarding gates that could automatically scan tickets and passports as passengers enter the aircraft.

"The vast majority of passengers use self-service. It's in excess of 80% now, and conventional check-in is being seen less often," says Clark.

One of Clark's priorities is to develop technology to manage queues in the terminal. Intelligent CCTV cameras, for example, could identify bottlenecks at check-in or security, and call in extra staff to deal with the problem.

"There are lots of technologies out there that claim to do it through facial recognition, visual recognition, even iris on the move. We are looking at trialling some equipment using iris recognition on the move," he says.

But the biometric technology needed to make this happen is still some way in the future. "If we want to have a fully automated journey, we need to crack the biometric technology," Clark says.

MOBILE TECHNOLOGY

Mobile technology will play an increasing role in airports, as more travellers rely on smartphones and tablets, Clark believes.

Delivering flight information by text message, mobile phone boarding passes, and apps that allow people to order their duty-free are likely to become the norm in future, he says.

"We need to anticipate where we think technology and passenger behaviour will be in three or four years' time and make sure that we build that infrastructure in here," he says.

Heathrow has invested heavily in radio technology to offer Wi-Fi and to deliver mobile phone signals to passengers. The size of the building and the unusual shape of the roof demanded some careful modelling to ensure coverage.

When 4G networks finally arrive, Heathrow will be ready, says Clark. "As and when the mobile operators offer it, we will have the infrastructure ready."

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NEIL CLARK, CIO

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The Terminal 2 network went live in late November 2012 and over the next six months Clark's team will commission the remaining 34 communications rooms which house the rest of the network infrastructure.

The target is to have everything installed and tested by June 2013. The IT team will run it as a fully operational terminal, putting the equipment through an extended period of operational testing, before passengers arrive.

"We learned this from Terminal 5. A clear period of technical testing so we are sure the technology and the infrastructure is working, ready for operational trials," he says.

Airlines will be introduced gradually into the terminal, rather than the big bang approach BAA took with Terminal 5.

"There will be teething problems, but we will be able to manage them," he says.

HEATHROW'S IT PRIORITIES

CIO Neil Clark has been working on the Terminal 2 project for two years. The terminal is a huge priority for the airport but it is only one of a large number of IT projects on Clark's list.

"We have a lot of work going on across the airport, in terms of our passenger experience work, our field operations, efficiency, baggage systems as well as our core business systems, enterprise resource planning and financial systems," he says.

One of Clark's top priorities is to help Heathrow work in a more integrated way, so the technology and business teams communicate more effectively, rather than working in silos.

The project - dubbed *Real-Time Heathrow* - aims to link stakeholders, such as the airlines, the UK Border Agency and air-traffic control, so they can respond more quickly.

For example, one such scenario would be to ensure all the right resources are present when a plane lands.

Most passengers - more than 80% - now use self-service.

"It's not just about technology. It's about how we operate, how we organise the airport and how we run it as an integrated airport, with all the resources coming together," he says.

At the same time, Clark is consulting with airlines to develop BAAs next five-year IT investment plan, which comes up for renewal in 2014.

The plan will feature more investment in the eastern end of the airport, home of Terminal 2, and developing high-tech baggage systems.

CEO Colin Matthews has asked Clark to lead Heathrow's baggage strategy, which aims to automate baggage transfers between planes more effectively, emphasising Heathrow's role as an international hub airport.

The airport predicts two-thirds of passengers passing through Terminal 2 and Terminal 5 will be transfer passengers, so automating baggage transfer is a priority.

"That is a big piece of strategic work," says Clark. "We have had a strategic investment in baggage but we need to think how this all comes together in terms of an integrated baggage solution," he says.

The project will ensure baggage is delivered to transfer planes before passengers arrive, and will allow Heathrow to optimise the way it uses its automatic bag stores. ■

**"IT'S ABOUT
HOW WE OPERATE
AND HOW WE
ORGANISE
THE AIRPORT,
WITH ALL THE
RESOURCES
COMING
TOGETHER"**
NEIL CLARK, CIO

➤ AIRLINE IT TRENDS SURVEY

➤ THE TECHNOLOGY IMPROVING AIR TRAFFIC CONTROL

➤ TRANSPORT TICKETING ON THE MOBILE

This is an edited excerpt. [Click here to read the full article online](#)

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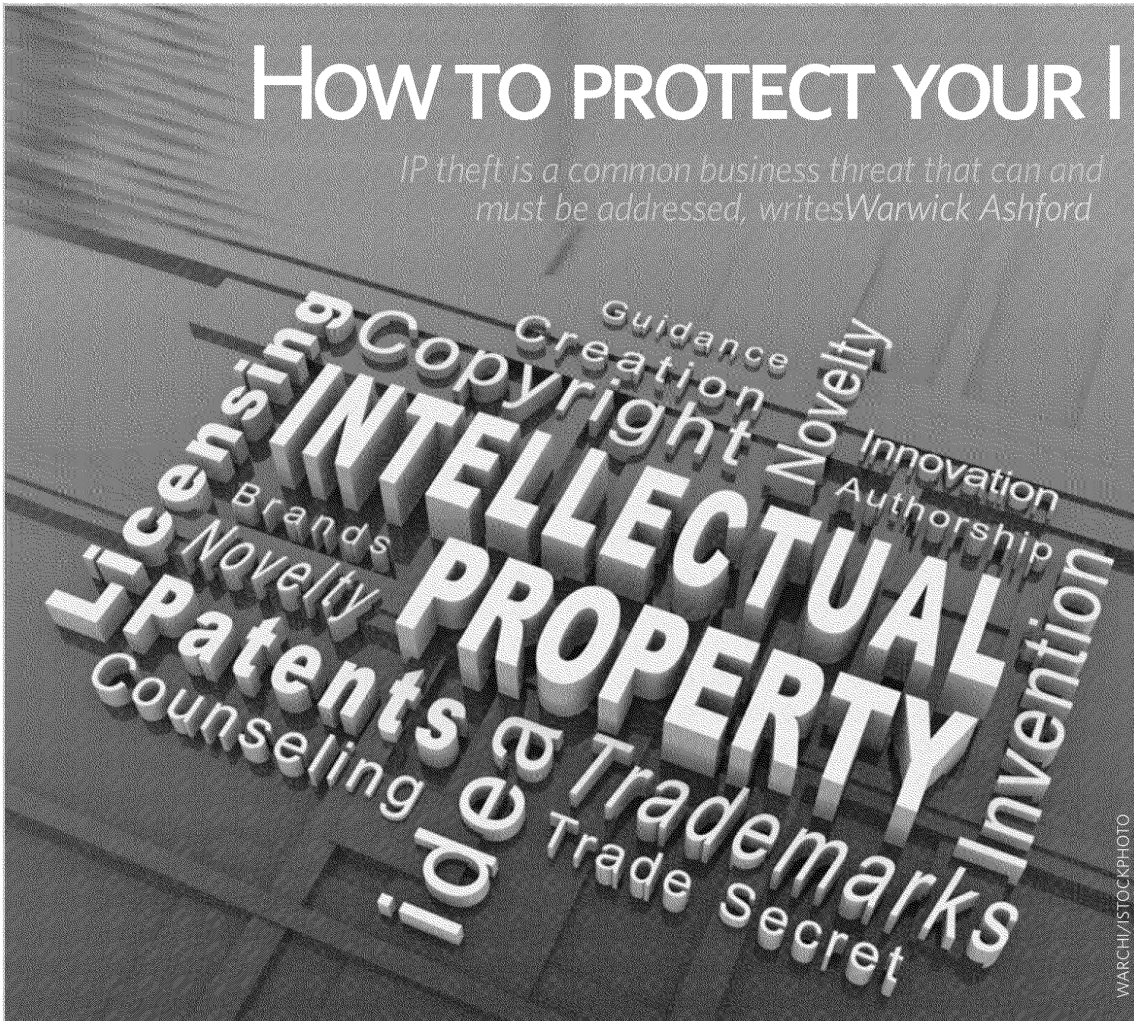
DOWNTIME

EXPERTS DEVELOP PROTECTIONS FOR PRODUCT PIRACY, IP THEFT

VERIZON DBIR ANALYSIS FINDS IP THEFT TAKES YEARS TO DETECT

HOW TO PROTECT YOUR I

IP theft is a common business threat that can and must be addressed, writes Warwick Ashford



WARACHI/ISTOCKPHOTO

Intellectual property (IP) theft is big business, accounting for tens of billions or more of lost revenue in most major economies, yet many traditional businesses are still ignoring this threat.

With most sensitive commercial information now in digital format, it is easier than ever to steal, and consequently IP theft occurs across all sectors and geographies.

Those stealing sensitive commercial data include nation states, criminal gangs and employees, while targets range from the smallest of businesses to large multinational enterprises.

Few, if any, can say they will not be targeted by IP theft, because all businesses have intellectual property, regardless of size or sector, and all IP has value.

The problem is that not all IP is recognised for what it is. While chemical formulas, prototype designs and recipes are obvious forms of IP, others are not.

Businesses could easily lose competitive advantage if data such as contact lists, customer details, sales strategies and marketing plans fell into the hands of rivals, yet such data is not always recognised and protected as IP

TOO EASY TO STEAL DATA

Typically, IP theft involves merely making a copy of data, and therefore companies are often not aware that anything has been stolen until the damage has been done.

COMPANIES ARE OFTEN NOT AWARE THAT ANY DATA HAS BEEN STOLEN UNTIL THE DAMAGE HAS BEEN DONE

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While it is often difficult to prosecute those responsible because of differing laws, punishment scales, and cultural and social attitudes around the world, copying and disseminating data is relatively easy. With the development of USB-enabled storage devices, it is possible to copy gigabytes of data using small devices that are easily smuggled into and out of organisations.

The advent of bring-your-own-device (BYOD) programmes is one of the biggest contributors in increasing the richness of the mechanisms available for copying IP-related data.

Personal smartphones, for example, are common in most corporate environments, yet they have the capability of small computers to disseminate data through social media sites and other online services.

Email is another conduit for data loss. IP-related data can be pasted into an email or attached as a file and sent outside the company, either deliberately or accidentally.

The increase of home working has also led to employees sending sensitive corporate data over insecure email systems to enable them to continue working with the data at home on a potentially insecure PC.

Home PCs are one potential source of malware infection. Once that malware is introduced to the corporate system, its authors can often copy and exfiltrate IP-related data for extended periods of time.

PROTECTING INTELLECTUAL PROPERTY

Once organisations recognise that they could be targeted by potentially bankrupting IP theft, there are several things that can be done to either prevent it from happening or at least mitigate its effect.

The first step for an organisation in protecting IP from theft is to understand what IP it has, says Kevin Wharram of the Isaca London Chapter Security Advisory Group.

This can be achieved by carrying out a data classification exercise which will allow the organisation to assess the sensitivity of the data it holds, he says. According to Wharram, the data classification exercise will provide an indication of what the data is worth and determine what information would be most damaging if stolen or leaked.

If organisations are to prevent IP-related assets becoming a market threat, it is vital that they conduct regular audits of their IP to protect those assets.

Once data is classified, he says, the organisation should create a data classification standard and guidelines, which should include what controls should be applied to each category of information.

**IT IS POSSIBLE TO
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OF DATA USING
SMALL DEVICES
THAT ARE EASILY
SMUGGLED INTO
AND OUT OF
ORGANISATIONS**

MAKE EMPLOYEES AWARE OF IP THEFT DANGERS

In addition to technical controls, an important component of any data protection strategy is to educate employees about the information an organisation holds.

Employees, especially those working with IP-related data, should have a clear understanding of what they can and cannot do with certain categories of data.

This can be achieved through a security awareness campaign. Most data leaks and IP thefts are caused by employees not being aware of the risks, such as phishing or social engineering techniques.

Typically, people are the weakest link when it comes to information security. Most successful data thefts involve a social engineering component where people are tricked into helping.

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As a further foundation, organisations should have a policy, backed by enforcement, covering the use and protection of IP in all formats, physical or digital, says Adrian Davis, principal research analyst at the Information Security Forum (ISF). The policy should cover organisational and non-organisational IP and how staff can use, share and protect it, he says, weaving in both IT and information security aspects.

Organisations should also implement a process to identify and manage the information risks that arise from sharing information with upstream suppliers and downstream customers, and set their assurance requirements accordingly.

"Contracts with new suppliers should include IP clauses and existing contracts should be renegotiated to enhance IP protection," says Davis.

To protect digital IP, in addition to fundamental controls such as access management, hardening servers and secure system development, he says, organisations should consider deploying technologies such as digital rights management (DRM), content filtering and logging, data analytics (to spot unusual activity), and a forensics capability (in-house or external) to collect evidence should IP theft be attempted or occur.

CONTROLLING ACCESS TO DATA

However, the effectiveness of any technical control to prevent IP theft will vary depending on how it is configured and a company's view on the use of technology, says Peter Wenham, a committee member of the BCS Security Forum strategic panel.

"An example is that you can turn off USB access on a PC or force the use of BitLocker on a USB memory device via Active Directory policies, and there are third-party software products that can be installed on a PC to restrict USB usage to known devices only," he says.

Email gateways are available to monitor what is being sent and quarantine messages violating set rules, but Wenham reiterates that these are only as good as their configuration and deployment will allow.

He also warns that none of these techniques is effective where data leakage is occurring because employees are transcribing data into a medium not under company control, such as personal smartphones.

While Wenham concedes there is no silver bullet, he says role-based access control can go a long way in helping reduce accidental or untraceable data leakage.

"By identifying user roles and the data assets that each role needs to access in order to do their job, file access permissions can be identified and technically implemented," he says. "By controlling the access to data, you are reducing its availability to be leaked, and by tying access to data to specific roles, you are improving accountability."

Other measures include ensuring that network privileges are appropriate to a person's role. For example, users should not have local administrator privileges on their PC and system administrators should have two accounts - one normal user account for day-to-day office tasks and another for administering systems.

Ensuring that only essential users have access - and then ultimately the correct access - to the systems they require to do their job is one of the most important tasks that human resources and IT staff need to manage within organisations today, says Dani Briscoe, research services manager at The Corporate IT Forum.

**"CONTRACTS
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ADRIAN DAVIS, ISF**

- > IP THEFT DRIVES DEMAND FOR SECURITY ANALYTICS
- > HOW TO PROTECT IP FROM HACKER THEFT
- > IP THEFT IS NOT A TOPIC THAT IS DONE AND DUSTED

HOME

"To set up a user with access to all corporate systems on a just-in-case basis is lazy and irresponsible security, leading to users having unqualified access to areas of the business, with no recourse or comeback.

NEWS

"Particularly important is the management of privileged access users – those with uniquely high or broad levels of access to information and possessing the ability and knowledge to enable them to remove all evidence of their movements within systems, leaving no trace," she says.

POST OFFICE TO
INVESTIGATE
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SYSTEM

According to Briscoe, strict and strong role-based access is an ideal that many Corporate IT Forum members are working towards.

CLOUD HELPS
BANKS DEVELOP
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"Having the ability to control which users can go where, what rights and, maybe more importantly, write access they have is an important part of security logging, especially if a leak should occur. Carrying out audits to spot-check systems should keep user access in check," she says.

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MOVES TO AMAZON
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The BCS's Wenham, who is also director of information assurance consultancy Trusted Management, says ensuring systems and PCs are patched with the latest security fixes and running up-to-date antivirus software is another measure that needs to be included as part of an overall strategy.

JOHN LEWIS CIO
ON TECHNOLOGY'S
ROLE IN GROWTH

Controlling access to the internet is yet another area worth considering, he says. For example, a marketing department may need access to social media, but not all employees need such access.

EDITOR'S
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Finally, an e-discovery solution can be used to see what data is where within an organisation to enable administrators to see if controls that are in place are covering all they need to.

OPINION

RECOGNISING THE THREAT

IP theft is a real and increasing threat to all businesses, especially as IP is increasingly a digital asset and easily available technologies make it ever easier to copy and disseminate data.

BUYER'S GUIDE
TO SOFTWARE
AS A SERVICE

Recognising the threat of IP theft is as important as ensuring the location of all IP is known and that it is adequately protected by technical controls.

IT CHALLENGES
OF HEATHROW'S
TERMINAL 2

It is equally important to recognise that protecting IP is not only about technical controls, but that it is also about people and processes.

Having the right business processes in place and ensuring employees recognise IP, understand its value and know how to protect it are just as important as multiple layers of security technologies.

HOW TO
PROTECT YOUR
INTELLECTUAL
PROPERTY

IP is paramount to the survival of any business. Any loss or theft of that IP could cause immense reputational damage and even bankruptcy. No organisation can really afford to be unprepared. ■

DOWNTIME

SEEK LEGAL PROTECTION FOR VALUABLE IP

Assuming an organisation has identified, catalogued and verified who owns – or should own – the IP rights to each item, the next step is to seek legal protection for the IP where the opportunity exists and its value to the business justifies, says Adrian Wright, director of projects, UK Chapter of the Information Systems Security Association (ISSA).

"It's worth bearing in mind that the new Patent Box scheme for tax relief, which comes into force on 1 April 2013, includes a special 10% corporation tax rate for profits arising from patented innovations, which is likely to be a serious business driver to identify, assess and protect all of your in-house IP," he says.

Who actually performs the various activities needed to identify, value and protect all of the organisation's IP will vary between organisations, says Wright, but will usually require close cooperation between the legal, human resources, security and audit functions working under a common business directive and agreed targets.

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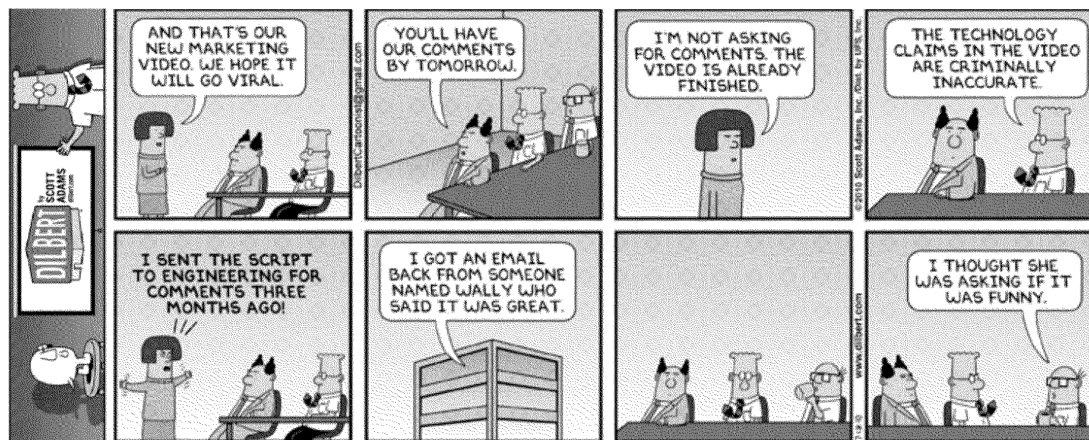
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DOWNTIME



IT professionals exact revenge on the bankers who cost them their jobs

A government commission is to give IT workers the opportunity to get revenge on the bankers who cost them their jobs and deteriorated their career opportunities.

IT professionals in the banking sector bore the brunt of the carnage of the financial meltdown in 2008. Thousands lost their jobs because bankers' bonuses encouraged risk-taking behaviour.

A government commission's report supports the idea of ring-fencing banks to separate retail and investment operations.

But it is going one step further by recommending the ring fence be electrified.

Now, any banker engaging in investment activity putting the bank at risk will be given an electric shock.

Not only will IT professionals play an important role in ring fencing the banks' separate systems, they will also be called upon to create the electrification.

Telephones and computers will be linked up to a monitoring system which, at the first sign of malpractice, will dispense a shock of varying voltage, depending on how risky the banker's conduct. ■

'BOB' SHOWS THE WAY TO DEVELOPERS' HOLY GRAIL

Verizon sheds light on the shady outsourcing practice of IT contractors winning deals and subcontracting the work to low-cost workers overseas. A software developer in a US organisation was found sending his work to a Chinese service provider, paying it a fraction of his wages.

Verizon was asked to investigate suspicious VPN activity that looked like a security breach. The Verizon report said: "Central to the investigation was the employee whose credentials had been used to initiate and maintain a VPN connection from China. Let's call him 'Bob.'

"Bob had simply outsourced his job to a Chinese consulting firm. Bob spent less than one fifth of his six-figure salary on a Chinese firm doing his job for him. Authentication was no problem, he physically FedExed his RSA token to China so that the third-party contractor could log-in under his credentials during the workday. It would appear that he was working an average 9 to 5 work day. Investigators checked his web browsing history, and that told the whole story.

"A typical 'work day' for Bob looked like this:

9:00am: Arrive and surf Reddit for a couple of hours. Watch cat videos.

11:30am: Take lunch.

1:00am: eBay time.

2:00am: Facebook updates and LinkedIn.

4:30am: End of day update email to management.

5:00am: Go home."

Bob is now the chief operating officer. Not.

READ MORE ON THE DOWNTIME BLOG

Supporting emerging Future Internet services for multiple applications

The **FP7 FI-WARE EU project** will deliver a novel service infrastructure, building upon elements (called Generic Enablers – GEs) which offer reusable and commonly shared functions making it easier to develop Future Internet Applications in multiple sectors.

FI-WARE is the cornerstone of the Future Internet PPP (FI-PPP) program, a joint action by European Industry and the European Commission.

With a budget of **4,2 Million €**, **FI-WARE's Third Open Call** will be devoted to the following goals:

- Take up of FI-WARE results by Internet application developers and entrepreneurs
- Creation and support of a dynamic innovation ecosystem around FI-WARE results
- Achieve maximum market visibility for the technologies and services developed by FI-WARE

It is expected that participants will propose a concrete and specific plan that enables to achieve these goals and they will be invited to refine and implement the final plan together with the FI-WARE Coordinator and in collaboration with the rest of the FI-WARE partners.

This FI-WARE Open Call addresses players who can demonstrate experience and credentials in organizing events that can mobilize thousands of users, own the necessary networking to achieve visibility in media and can contribute a working online platform able to support the creation of an innovation ecosystem around FI-WARE involving all relevant stakeholders.

Submitters to this Open Call should be legal entities that are established in an EU Member State, or FP7 Associated State.

Call identifier: FI-WARE: Open Call 3 for additional beneficiaries

Call open: The call opened on 21st December 2012

Call deadline: The call closes on 27th February 2013 at 17h00m (Brussels time)

Duration: May 2013 to April 2014

EC funding: up to 4,2 Million Euro

Language: English

More info at: <http://www.fi-ware.eu/open-call/>

E-mail: fiware-opencall-help@GRO

