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BRITISH APCO JOURNAL

Knowledge Exchange for Public Safety Communications

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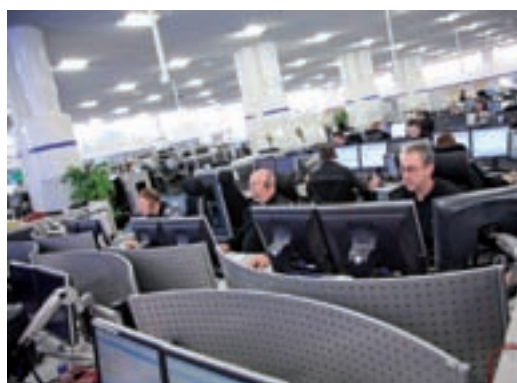
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Knowledge Exchange for Public Safety Communications

British Association of Public Safety Communications Officials

British APCO is where active and advising members of our public safety community exchange and advise on all critical communications subjects. British APCO participates strongly in the Global Alliance of APCO International. British APCO's aims include solving realtime critical communications problems, participating in research programmes (eg EU projects), showcasing technologies, and lobbying on issues such as spectrum and harmonisation. British APCO holds an annual exhibition and development event, many regional events as well as training sessions, and is respected as the UK's (and Europe's) leading – and only – forum of knowledge exchange and transfer specific to communications in public safety. To find out more details on how to contribute and draw from of this vibrant community, by becoming a member, contact Tracey Langmaid, Tel: 01522 548325, admin.manager@bapco.org.uk For more information visit www.bapco.org.uk

British APCO: President's address



Alan House, President

During recent visits to APCO events in the USA, Canada and Australia, it is very apparent that our APCO partners are getting to grips with topics related to spectrum allocation for the future and, in particular, the securing of sufficient and appropriate sole allocation for public safety benefit. Also the consideration of new and emerging

technologies available to and being installed in emergency call centres and the greater use of mobile phone public safety apps for interfacing with the public, not only for receiving calls but also warning and informing, and shared operational information between responding agencies. I find myself wondering just how much we in the UK are tackling such issues. 'Enhanced 911' and public safety broadband are both huge areas of focus in the USA with previously unheard of federal funding allocation. Quite apparent too is the greater working-together opportunities being taken, either in the form like-agency or across-agency partnership initiatives. A great deal is going on in the UK right now with regard to the provision of emergency call centres for fire and rescue services, and hopefully they are all forward thinking in their approach and looking at what is coming in the way of new technology

solutions and shared information opportunities. The Olympics seemed to be a good reason to say that technology advancement for some agencies was on hold. It will be interesting to hear and see how public safety communications advancement will now proceed, hopefully incorporating the many lessons that will have been learned from this prestigious and successful event. The success of the Olympics must be recognised in terms of all matters related to public safety but due recognition ought to be given to all those engaged in providing the many and various forms of communications that will have been developed and used to provide a safe alert and enjoyable environment. Finally, our planning is now well underway for our 2013 event in Manchester, and it should now be etched into your diaries if you want to be part of building on the success of 2012.

A word from the Vice President



Sue Lampard, Vice President

In the absence of a column from our Commercial Advisory Group in this edition, I've been given the opportunity to have my own slot! I had to ask the Ed how many words I was allowed, as with a bit of time and

thought I could take half the Journal space. Sadly I was limited to a small column and only two hours to write something – so here goes! In the past two years we've done a lot of work in transforming British APCO and have 'unpicked' just about everything we do, with a view to making it more relevant to today's world. For those of us with 'day jobs' these have been challenging at times – and also quite frustrating as the pace of change is never as quick as we'd like it to be. One of the most important areas we've been looking at is membership – how we can make British APCO an

organisation that people want to join; with defined benefits that they can gain from joining? Networking is one of the most important benefits, but with austerity measures cutting deep it becomes more and more difficult to get people together. Our benefits need to broaden so that we engage with colleagues at all levels – from control room staff (through training and accreditation programmes) to government departments (influencing policy and advising), and the commercial sector (through access to operational users and selling 'UK PLC' both at home and abroad). The last few editions of the

Journal have been circulated to a wider audience to include control rooms across the public safety sector, and also Local Resilience Forums, where we have already forged strong links with the Civil Contingencies Secretariat at a national level. But we want to work more closely with the regional and local teams. I hope that getting the Journal out there will spark interest and recognition of our name. We want people to engage with the work we're doing and to want to become part of it! If you're reading this and haven't joined British APCO, we'd love you to be a part of what we're doing, so please make the contact and join!



Knowledge Exchange for Public Safety Communications

Joining together civil contingency and public safety will bring benefits, writes Executive Director Tony Antoniou.



We've had that brief Indian summer after such dismal weather, and already our emergency services are working hard with floods, damage and evacuations. Autumn has arrived!

This is a busy time for us all. We've taken stock of what we achieved at Manchester and we're busy building the 2013 event at the same great venue. We want to continue moving forward with many more radical improvements, and there is little of the old 'conference' structure in place. The entire event is now about the successful fabric of our annual exhibition, but with the addition of unlimited access for members (other than room capacity and safety limitations) to an even richer program, incorporating training, learning, debate, development and themed events. 'Delegates' will be a thing of the past, which means we won't hear again, 'I wanted to participate in development session X but because I wasn't a delegate...'

We believe that this further pushes the benefits of what we're providing at this important event towards all our members. So book your place in these specific smaller development sessions early! British APCO 2013 will be unmissable.

To facilitate access across all our events and avoid any kind of 'tiered' approach, we need you, our supporters, readers, members, and partners, to maintain your memberships. We can't take this radical approach of free, open access to our events unless our partners, uniformed, commercial, government, parallel sectors, and others, commit their support to British APCO by maintaining their memberships. Subscriptions remain incredibly good value as long as we can afford to subsidise them as we do.

We seem to be growing from strength to strength. I tend to measure this by our activities, our relevance and with whom. Increasingly we are an important and influencing participant in so much across the constituencies we know well, but also increasingly we are gaining importance in new areas.

An example of this is the forthcoming event we're holding at Heathrow in October. If this turns out to be as compelling as it appears, I imagine we will look to consolidate most of our year-round activities into two larger events – our main Annual Exhibition and Professional Development Sessions in April and an autumn event in London. This offers a ready-made focus

for our interworking with transport, utilities and local government, Cabinet Office, TSG, ACPO and so on. In addition, the southern geographical Regions can hold their meeting onsite as part of what's going on.

A twice-yearly peak brings our Commercial Advisory Group a more efficacious focus – I am sure they wonder why they need to meet sometimes, if we're not planning together for the next big influential activity across our constituencies. Look out for change in the way this brings us together.

We have combined a sealed-room ACPO briefing event (which needs support in the form of exhibitors and sponsorship) with a joint event hosted with Wireless Magazine for the utilities, transport and local government sectors. This brings the two groups of civil contingency and public safety communications users together – at last! I have collected much evidence from both groups that there are huge benefits in increased collaboration across many areas. Please join us by participating in sessions at Manchester to further this initiative. The added benefit of having multiple constituencies present at Heathrow enriches the proposition for our commercial sponsors and participants.

We are using this gathering to accommodate other needs as well. We have a meeting of European users who are participating in Shaun O'Neill's Freesic project under the same roof. We have invited southern Regions to hold their next meeting here. I believe that in future years there will be other similar needs from the services, agencies and across forces for similar briefings. I hope we will be successful with the parallel event, bringing as it does our sectors together. On this subject, I will be trawling the membership for speakers who can help us highlight the importance of this type of interworking (in your specialist areas) between sectors, and to this effect I will be sending out a separate newsletter – so watch out for it please. This interworking with utilities, transport and local government will be a huge success if it is equitable and truly bi-directional.

Coming up are the TSG chairs at Aston Conference Centre (probably relocated to be part of the Heathrow event in a future year), the Emergency Services Show, and then Christmas... phew! 2013 is going to be amazing. Make sure you are up to date with your membership subscription – you have to be a member to participate in this growing association and its events!

*Tony Antoniou,
Executive Director.*

BEST PRACTICE GUIDANCE



The Association of Ambulance Chief Executives (AACE) and the National Ambulance Resilience Unit (NARU) have introduced the new National Ambulance Command and Control Guidance. The NARU Preparedness Workstream, working closely with the NARU Training Faculty, developed the guidance which took into consideration the lessons identified from previous major incidents and event responses across England over recent years, in addition to the best practice models from police and fire and rescue service partners. The aim of the guidance is to assist the ambulance (and the NHS) commander in taking appropriate and consistent considerations to inform decision-making, based on sound risk assessment. It is designed to provide a structured process to assist in the command and control (but not the management) of the NHS response and recovery elements, as part of the multi-agency partnership.

➔ Met Police goes live with Procurement Hub

The NPIA's 'Amazon-Style' online procurement system, the National Police Procurement Hub, has gone live in the Metropolitan Police Service.

This makes the MPS the latest force using the Hub. Kent and Suffolk have also recently gone live, and a further 23 forces are working towards being connected. Almost all forces in England and Wales are expected to be using the Hub by spring 2013.

The National Police Procurement Hub (NPPH) is an electronic marketplace that provides the police service with the ability to select and purchase a range of approved goods and services online such as IT, body armour and vehicles. The Hub is set to save the police service £69 million over the next six years by supporting collaborative working across multiple forces and reducing the cost of purchases by harnessing the buying power of the police service and managing suppliers better.

To date, some 3,700 orders have been placed through the Hub at a value of over £3.2 million. Overall, there are over 900 suppliers on the Hub and over 600 of these have a catalogue.

Ian Currie, Head of Commercial at the NPIA, said: 'It's great to see more and more forces using this hugely beneficial service. The police service is committed to delivering significant savings from better procurement. Therefore, it is absolutely vital that those charged with buying goods and services have fast and direct access to this simple online purchasing system to access best value products and services.'

The NPPH project forms part of the Information Systems Improvement Strategy (ISIS), a programme for the police service that is using IT to improve efficiency. This will release savings and deliver operational improvements across policing and into the wider criminal justice system.

➔ New centre makes waves

The formal opening of the Radio Society of Great Britain's National Radio Centre (NRC) took place at 11am on 11 July. Ed Vaizey, Minister for Culture, Communications and the Creative Industries at the Department of Culture, Media and Sport performed the official opening. The Centre is a world-class showcase for radio communications technology – the technology powering the 21st century economy. The Centre provides the opportunity to get 'up close and personal' with the history and technology of radio communications.

From the first inventors in the late 19th century through Marconi to future radio developments, visitors will find films, interactive displays, hands on experiments and even the opportunity to 'go on the air' using a state-of-the-art shortwave amateur radio station.

A part of the Bletchley Park Heritage site, the NRC – with its focus on radio communications today – fits naturally with other parts of the Bletchley Park museum, which show how radio communications have played a pivotal part in the history of codebreaking, counter-intelligence and national defence.

The NRC features a small cinema and extensive descriptions of the history of radio communications interspersed with examples of radio equipment across the 20th century.



➔ Safe in command



Cambridgeshire, Hampshire, Gloucestershire, and Devon & Somerset FRS services have selected Astrium's Mobile Data Communications Gateway.

The SAFEcommand MDCG solution acts as a mechanism for routing messages between a command and control system and mobile resources such as fire appliances, and has been designed to serve as an 'intelligent gateway'. The solution maintains its own data set and is capable of acting upon the content of messages, rather than simply acting as a basic routing mechanism.

Andy Kerr, Senior Commercial Manager at Astrium, said: 'The SAFEcommand Gateway solution is proving popular as a reliable, resilient and next generation approach for emergency communication – between a command and control system and mobile resources – as it provides support for real-time data communications and automatic vehicle location.' Paul Ingoldsby, Hampshire FRS, commented: 'The Gateway solution is clearly making an impact across our sector as it provides a reliable mechanism for bi-directional data communications, and that's really important to support the ad hoc clusters of mobile resources that are created by specific incidents.'

➔ Major surveillance investment in Wales



An improved digital video surveillance system that delivers efficiencies and saves costs has been installed by the North Wales Police.

The new digital video surveillance system was provided by Veracity UK in co-operation CCTV Services.

North Wales Police was looking for an advanced IP solution to provide more functionality and flexibility to replace the existing Maxpro system in the Joint Communications Centre in St Asaph and also in the Strategic Co-ordination Centre in a separate location.

Moving to the new digital solution has enabled the force to dispense with expensive fibre optic leased lines which it previously relied on to transmit CCTV video from the local authority control rooms to the central control room at a cost of £30,000 per year.

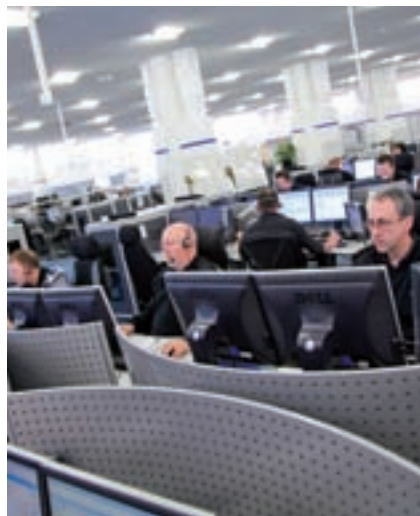
The Instek video surveillance equipment provides North Wales Police's control room operators with images from more than 400 fixed cameras based in the town and city centres from Pwllheli in the western end of the Llyn Peninsula to Wrexham on the border with England to the east.

CCTV Services installed Axis encoders to

convert analogue images from the local authority CCTV cameras coming in from all six local authority control rooms into the Instek NVRs (network video recorders).

The system's benefits have recently been extended to North Wales Police's 'Air Ops' headquarters in Rhuddlan. When the Air Ops team is requested to send a helicopter to assist with an incident, the new system will allow them to directly access images from ground-based CCTV cameras in the area, increasing their operational effectiveness.

North Wales Police will also be able to support police officers on the ground in cases of serious incidents by using the high-definition surveillance camera on its helicopter 'NW01'. Radio equipment is being fitted to receive video images from the police helicopter camera down to one of a number of police aerial masts across the region and from there into the police authority's central control room.



➔ Pictco to provide best value for police

A new company has been set up to help police forces to improve their information technology and get better value for money from contracts.

The Police ICT Company – dubbed 'Pictco' – is currently jointly owned by the Association of Police Authorities and the Home Office but will be handed over to police and crime commissioners following elections in November.

The company has been created to get better value for money for forces by offering access to better services and deals. 'While some police IT is good, such as the new Police National Database, much of it is not. There are 2,000 systems between the 43 forces of England and Wales, and individual forces have not always driven the most effective deals,' said Nick Herbert, Minister for Policing and Criminal Justice.

Across all forces, there are more than 300 separate software licences with a single software supplier. Pictco would seek to consolidate these and use government spending power to get better deals for forces.

'We need a new, more collaborative approach and greater accountability, utilising expertise in IT procurement and freeing police officers to focus on fighting crime.'

'By harnessing the purchasing power of police forces, the new company will be able to drive down costs, save taxpayers' money, and help to improve police and potentially wider criminal justice IT systems in future.'

The new company will be responsible for providing strategic ICT advice and guidance to forces and the procurement, implementation and management of ICT solutions for forces.

The aim of the Police ICT Company is to free chief officers from in-depth involvement in ICT management and enable greater innovation so officers have access to new technology to save time and ensure better value for the taxpayer.

➔ For sale; never used

Tenants are wanted for the five remaining legacy FiReControl buildings, Procurement and Value for Money Minister Baroness Hanham announced in a written statement. The buildings are located in Wolverhampton, Cambridge, Taunton, Wakefield and Castle Donington. As well as excellent resilience, good security and easy access to major road networks, buyers of the control rooms will also benefit from the £6,000 a piece deluxe, polished chrome 'Brasilia' espresso machines that were purchased for each of the centres. 'It is clearly unsatisfactory that taxpayers have had to foot the bill for this poorly conceived and poorly implemented project from the last Administration, and taxpayers will no doubt resent such expensive buildings lying empty because of the botched procurement and handling of FiReControl under the last Government,' said the Minister.



➔ An independent College of Policing

The Home Office has released an introduction to the College of Policing, which is expected to operate independently of Government.

The new professional body, whose creation was announced by the Home Secretary in December, will set the standards for training, development, skills and qualifications for the police service.

The introduction explains that until the statutory body is created via legislation, a company will be established to allow many of the necessary functions of the National Policing Improvement Agency to be continued.

Specifically, the College of Policing will:

- Protect the public interest
- Set and enhance first-class national standards of professionalism to ensure excellence in operational policing
- Identify evidence of what works in

policing and share best practice

- Support the education and professional development of police officers and staff
- Enable and motivate staff and partners to work together to achieve a shared purpose: by working with partners to make the best use of specialist knowledge.

The College of Policing will not:

- Issue any licence to practice policing; duplicate the roles other bodies play, like HMIC or the IPCC;
- be a rebranded National Policing Improvement Agency;
- investigate complaints or allegations of misconduct against police officers and staff (this will remain within the remit of the relevant police force);
- create a raft of bureaucratic guidance for the police service.

➔ Telematics solution



APD has won a three- year contract to supply telematics solution to police forces in England and Wales.

First released in April this year, the ARTEMIS resource and information management portfolio aims to assist forces in promoting best practice, efficiency and cost reduction.

At the same time as Northamptonshire Police signed a contract to implement ARTEMIS, a three-year national framework agreement was awarded to APD for supplying ARTEMIS to police forces in England and Wales.

Northamptonshire Police anticipates that the acquisition of advanced telematics and process management technology will lead to savings for its police vehicle operations, at the same time as improving frontline services and efficiency. APD's solution was judged to be the most compliant and scored the highest marks of all 12 rival bids across the selected criteria. As a result, APD was awarded the contract to supply the telematics solution to Northamptonshire Police, and to any other police force under the terms of the framework agreement.

➔ Criteria for One Box

The Home Office has published *One Box - Driver and Vehicle Data Management System Criteria*.

This document outlines the standards relating to the Driver and Vehicle Data Management System (DVDMS), required by the Association of Chief Police Officers (ACPO) and the National Association of Police Fleet Managers (NAPFM), in relation to providing a data management system for vehicle and driver telematics.

Its aim is to ensure commonality of approach to provision of telematics for the police, together with providing a management tool to underpin safe and efficient driving standards for organisations and staff.

This work has been funded by the Home Office Centre for Applied Science and Technology (CAST).

It was led by the ACPO Intelligent Transport Systems (ITS) Working Group that, with a large consortium including third-party suppliers, vehicle manufacturers and other emergency services, have developed these criteria.

The document is available at: <http://www.homeoffice.gov.uk/science-research>.

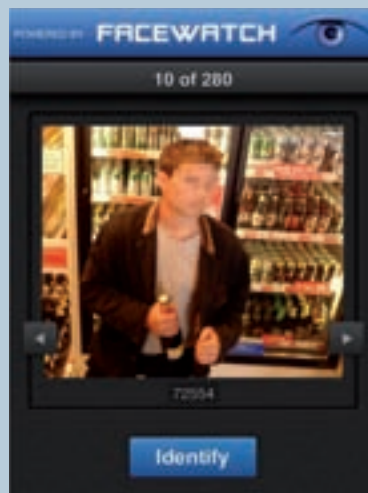
➔ ID the villains

A mobile app is being used by Surrey Police to enable suspects to be identified at the touch of a button.

Following the success of the Surrey Police Beat application which was launched at the beginning of 2011, officers are now hoping Facewatch will help identify people caught on camera that may be responsible for a crime or be able to help with an active investigation. Detective Inspector Mark Pary said: 'Surrey Police is already known as an innovative Force and the launch of Facewatch in the county is a very exciting step in the use of smartphone technology.

'The Force recognises the importance of new technology and the constantly expanding world of social media to help us meet both the demands of modern day policing and the demand of the public. Residents, who are ever busy and more mobile, are able to access the service in the comfort of their own home, on the daily commute or at their leisure and at a time of stretched police budgets, this application offers a simple and cost effective way of helping us engage with them.

'The application works so well because of its simplicity, allowing users to anonymously identify suspects involved in



crimes such as shoplifting and anti-social behaviour.'

Facewatch is available free of charge on iPhone, Blackberry and Android smartphones through their application stores, and works when a user inputs their postcode into the front screen. The user will then see a number of CCTV images connected to crimes in their area with a function of providing information anonymously to their local police force.

Internet users can also view the stills by visiting www.facewatchid.co.uk or the Surrey Police website at www.surrey.police.uk.

➔ NHS Ambulance Trusts provide winning service during Olympics

In addition to those people treated by LOCOG Medical and St John Ambulance, staff from the London Ambulance Service along with colleagues from other NHS Ambulance Trusts attended more than 400 patients in Paralympic venues and related events such as live sites and the torch relay. Of these, over 170 people were taken to hospital or the polyclinic at the Olympic Park. At the same time, the normal 999 service was successfully maintained across the whole of London.

Deputy Director of Operations Jason Killens said: 'A massive amount of work has gone on in planning our level of support at venues throughout both Games periods, as well as ensuring that we have been able to continue to provide the best service we could to the rest of the capital. It is very satisfying for all staff involved – in our control rooms, support services and those who have been treating patients – that we have been able to achieve this.'

When added to the number of people treated at venues and related events during the Olympic Games, the figure from the Paralympics brings to over 1,250 the total number of Games-related patients cared for during the London 2012 competitions, with around 670 needing to have gone to hospital. Away from the sporting action, patients across the capital received a fast response, with an average of nearly 83% of those with the most

serious illnesses and injuries reached within eight minutes – above the Government target of 75%.



A paramedic with former wheelchair racer and now TV presenter Tanni-Grey Thompson.

DIGITAL EVIDENCE PILOT IS A SUCCESS

A three-month NPJA pilot project to enable police officers to spend more time on the beat by using digital technology to take witness statements has been estimated to have saved around 780 hours of police time in two forces.

The agency's Digital Evidence Pilot was run in Hampshire and Avon and Somerset to test the benefits of police officers on the beat using laptops and Personal Digital Assistants (PDAs) to securely and authentically record information rather than pen and paper. It also incorporated a smaller pilot on electronic police notebooks in Surrey Police.

Taking witness statements electronically enabled officers to complete statements an estimated 15 minutes quicker on average. It also enabled officers to send them back to force in less than a minute without having to return to the police station. The current manual process for witness statements in forces involves typing and scanning some of the details from the handwritten statements into the force crime system, which would no longer be required with EWS.

The EWS application can also be used for other processes requiring evidential documentation such as handwritten interviews, and has the potential to be used in court process such as warrant applications.

As a result of the success of the pilot, the NPJA has published ACPO and CPS-approved standards for forces that want to develop and implement EWS technology. The agency continues to work with suppliers to make the EWS technology available to all forces via approved frameworks.

Andrew Goodman, NPJA head of the Information Systems Improvement Strategy (ISIS), said: 'The pilot has proved that there are significant benefits to be gained for frontline officers. Enabling them to type police notes and witness statements without having to return to the police station, makes the whole process more efficient and cost-effective at the touch of a button.'

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Dates for your diary

Top left: The 2013 Annual Exhibition and Professional Development Workshops will once again take place in Manchester

Central. Top right: British APCO will be exhibiting at The Emergency Services Show 2012, in Hall 3, Stand E53.

Resilient Telecommunications and Information Management for Emergency Response Course: 5-6 November, Aston Business School Conference Centre & Hotel, Birmingham

The aim of the two-day event is to examine the need for interoperable and resilient telecommunications in integrated emergency management.

By the end of the course participants will be able to:

- Identify current priorities for resilient telecommunications and interoperability workstreams
- Describe the planning assumptions and UK Government principles of resilient telecommunications
- Describe the framework for information sharing, interoperability and its communications requirements
- Assess a range of telecommunications tools.

On day one delegates will be briefed on guiding principles, risk and assumptions for resilient telecommunications; take part in workshops focussed on how individual organisations/TSGs measure up; take part in an exercise; hear a presentation on telecoms sub group priorities by Sue Lampard, Surrey TSG Chair and BAPCO Vice President; and hear from Trevor Winterbottom, National Fleet Mapping and Interoperability Manager, NPIA, on lessons identified during the London 2012 Olympic Torch Relay, Olympic and Paralympic Games.

On day two there will be presentations on interoperability in practice (Dorset Police, TBC); communications resilience and capabilities (fixed and mobile solutions); a case study by Simon Land, Business Development & Technology Director, ARL Comms; and much, much more.

For more information visit www.epcollege.com; email enquiries@emergencyplanningcollege.com or call 01347 821406.

JESIP National Interoperability Summit: 21-22 November, Stareton Hall, Stoneleigh Park, Coventry

Following the establishment of JESIP (the Joint Emergency Services Interoperability Programme) CFOA, AACE and ACPO invite readers to join leaders and strategic managers

from UK Cat 1 & 2 responders at a national summit addressing the critically important topic of interoperability between emergency responders.

The JESIP National Interoperability Summit is being coordinated by CFOA Services Ltd, supported by AACE and ACPO and hosted by the Emergency Services Show 2012. It takes place on Wednesday 21 and Thursday 22 November 2012 at in Stareton Hall at Stoneleigh Park.

On Wednesday 21 November, the summit opens with the Home Secretary, Theresa May, who will lay out the Government's expectations and aims including the area of national security but specifically interoperability. Members of the JESIP Programme Team will then be providing information about JESIP describing its formation and drivers through to its structure and what it aims to deliver.

Delegates will have the chance to better understand the JESIP work programme and how it will affect them and their organisations. They will learn how to ensure they remain informed and are well prepared. A review of the interoperability legacy following the Olympic and Paralympic Games will be presented by the National Security Office. Jennifer Cole from RUSI will be discussing interoperability from a research perspective, building on her understanding of the military and complex civil emergencies.

After the first day of conference sessions, delegates will be taken to a nearby hotel by free coach transfer where there will be a formal dinner with a prominent after dinner speaker.

From the worlds of academia, Professor Alison will talk about the human complexities of working together in stressful situations; and from law, Fiona Barton QC will provide a perspective from after the event and subsequent inquests and enquiries. Christina Scott will be providing her view about Interoperability from the perspective of Civil Contingencies and wider multi agency working.

Speakers representing the professional bodies of police, ambulance and fire will be giving their own perspectives on the way forward and the challenges ahead.

Speakers include:

- Theresa May, Home Secretary (to be confirmed)
- Christina Scott, Head of Civil Contingencies Secretariat

- Roy Wilsher, CFOA Operations Director and Chair JESIP Strategic Board
- Jennifer Cole, Royal United Services Institute
- Chris Allison, National Security Office (to be confirmed)
- Professor Laurence Alison, Forensic Psychologist from the University of Liverpool
- Fiona Barton QC (London 7/7 bombings and the Cumbria Shootings)

Booking forms are available on the CFOA website at www.cfoa.org.uk/13391 or by contacting the CFOA events team on events@cfoa.org.uk.

The Emergency Services Show: 21-22 November, Stoneleigh Park, Coventry

2012 has been a year to remember for national and international events as the UK and the rest of the world celebrated the Queen's Diamond Jubilee and the 2012 Olympic and Paralympic Games. The most recent success for the UK's emergency services and associated departments was the London 2012 Olympics; one of the biggest security challenges the UK has faced for a number of years. Efficient communication methods between the emergency services were pivotal to ensure incidents were dealt with as quickly and efficiently as possible. With social media now an influential and popular part of our everyday lives, emergency professionals have also had to learn how to work with the likes of Twitter and Facebook to aid and not hinder the services that they offer.

Networking and collaboration with suppliers, colleagues and partner agencies is essential to ensure professionals are kept up to date with the latest equipment and software, and British ACPO will be exhibiting in Hall 3, Stand E53 at The Emergency Services Show. The Show is the ideal place for emergency professionals to examine the latest wireless communication solutions for public safety and emergency recovery, as well as networking with like-minded professionals to discuss collaboration, ideas and initiatives.

There will be a range of suppliers exhibiting at the show including Excelerate, Terrafox, Page One, Primetech, Tracker, Indicomm Global, Panasonic, Getac, Pinnacle Response and Reveal Media that will be on hand to demonstrate their latest innovations and developments and to talk about cost-saving initiatives. New exhibitors for 2012 include Savox Communications, AST Systems and Paradigm Services.

As well as the exhibition, there are also a number of educational opportunities available to visitors including the National Interoperability Summit and recovery demonstrations from the Road Haulage Society and the Babcock Road Traffic Accident Display Team.

The Emergency Services Show will be hosting a number of discussions on LinkedIn running up to and during the event. To join in with relevant industry news discussions involving emergency planning, response or recovery, please join The Emergency Services Show LinkedIn Group.

To register for your free visitor pass or to learn more about attending The Emergency Services Show 2012, please visit www.emergencyuk.com.

The Annual Exhibition and Professional Development Workshops: Manchester Central, 29-30 April 2013

Now in its 15th year, this is the leading European multi-agency forum for all professionals in:

- Mission critical communications
- User requirement specifiers
- Civil contingency response
- Outsourcing management
- Business continuity
- Emergency information and data management
- Business change management

British APCO has a fresh new agenda to drive knowledge exchange and future systems harmonisation. In line with current trends the theme for the next event is 'maximising technology for smarter partnerships', and yet again the conference and exhibition will offer a unique platform for local and global technologies and applications, as well as a forum to explore the most pressing issues for the industry today.

The exhibition caters for all platforms and applications, from existing TETRA technologies, to newer providers of LTE, 4G broadband applications and services, smart asset and people management with RFID, and maximising mobile functionality for frontline service providers.

In a shift from the former conference programme format, the 2013 event moves to free-to-attend Professional Development Workshops focusing on a number of key themes, including maximising technology for smarter partnerships and on shaping user requirements for the future.

The Exhibition and Professional Development Workshops offer users, buyers and specifiers from across the public sector and related agencies – including transport, MOD, central and local government and utilities – access to the best current and developing technologies which support their businesses and services, and which will shape their future operations.

For more information visit www.bapco.co.uk or contact Jasvinder Sidhu, tel: +44 (0)207 973 4700 email: j.sidhu@hgluk.com.

At the close of the first day's business at the B-APCO Annual Exhibition, the popular dinner at the Midland Hotel brings the industry together for the perfect opportunity to continue conversations and debate.





TETRA in Dubai

The theme for this year's TETRA World Congress was very much aligned towards LTE and data – but voice communications also saw some significant enhancements in line with current trends.

Next year's event takes place May 20-23 in Paris, where the TWC will be rebranded as Critical Communications World (Incorporating TETRA World Congress). A key focus in Paris will be providing mission-critical mobile broadband to the emergency services. Below: Motorola introduces the MTP3000 series of radios to answer three current trends in the market.

Tom Quirke, VP and general manager Global TETRA Organization, Motorola Solutions, introduced new products that are directly aligned to major trends in the emergency services.

The first trend identified by Tom related to single-person policing – or from another perspective, 'lone working' – which is in turn increasing the importance of communication to the point TETRA has become more of a lifeline than ever before. 'For some departments there is not enough capability to provide the full support front line officers need, so the radio has to work every time in all environments. This drives safety and from our perspective two things: can I make a call and, secondly, can I be heard.'

The next trend was particularly pertinent to Western and Northern Europe: 'I have a TETRA network, how can I squeeze more out of it... so it's about providing more features and making sure flexibility is built into the system to drive down operating costs of the network.'

Lastly, the third trend related to the future – people wishing to keep their options open without being locked into a technology that may limit further developments.

To try and answer these three trends Motorola has launched the MTP3000 series of radios, which have been designed with three things in mind; safety, toughness, and ease of use. Connectivity has been enhanced by increasing receiver sensitivity by 2db, meaning that the new radios have better range. So 'lone workers' have better radio coverage which enhances user safety.

Secondly, the audio power has been maximised by upgrading the audio output power to 2 watts, 'And that gives us one of the clearest audio performances of any TETRA radio in the world.'

A brand new platform underpins the new radios, making them easier to use and more intuitive. The platform also enables better handling of high numbers of status messages and large talk groups. Other features include a trans-reflective screen for excellent readability in all light conditions – from shade to bright sunlight – as well as two knobs on the radio

to ease transition of users moving from analogue to digital. In addition, the design of the side connector has been altered and the new connector can sustain a 40-pound breaking strain: the new quick-release design means the terminal can be disconnected in two seconds with one finger.

The IP rating of the new radios has been upgraded to IP65 to offer the best dust and water protection under real field operating conditions.

The three radios in the MTP3000 range are the MTP3100, MTP3200 and the MTP3250, the main difference being the MTP3100 has limited keypad and no wireless connectivity (via Bluetooth) or location services (via GPS); the MTP3200 has limited keypad with Bluetooth and GPS; and the MTP3250 has full keypad with Bluetooth and GPS.

The MTP3200 and MTP3250 have been created with secondary devices in mind such as PDAs. These collaborative devices can connect to these TETRA terminals via their Bluetooth-based wireless connectivity to transmit data should a commercial network fall down.

Another innovation announced by Tom related to technology that analyses TETRA coverage. Last year the Motorola TRACES solution was announced, which captures signal strength information within a terminal and at the end of the day, when the terminal is placed on an 'intelligent' charger (ie iTM – integrated Terminal Management), downloads the information to a database. In this way the network performance in real operating conditions (no need for special driving test teams) can be mapped and analysed throughout a network. 'Now we've added the capability to store the data that is coming in the uplink, in real time, so it goes straight into your network enabling continuous network analysis. Thus saving costs.'

Future proofing and the rise of data are complex issues and in the future emergency services will have to; estimate how much data they will be using; decide what applications will be used in the front line; and decide which apps are service impacting as opposed to mission critical. 'In some countries they treat video as purely strategic so it is only used in the



command and control centre for total operations visibility. In others, they are thinking of putting video in the hands of the user.' Tom added that applications are the key to answering the data question, and he went on to outline which applications the emergency services consider to be the most useful. The number one app being used is database lookup for car registration or ID. 'A lot of the time it is done by voice today, and if you don't hear it correctly it is very difficult to get dispatch to repeat it. It uses a lot of voice capability, and that's why they like the concept of database lookup.'

Whilst 90% of these data applications can currently be supported using TEDS on a TETRA network, when it comes to high quality video then public safety LTE will be needed.

Bearing these applications in mind, Tom suggested that all currently available TETRA network infrastructure is TEDS capable. This significantly insures the investment made in TETRA today will support data services in the future.

Alcatel Lucent and Cassidian announced a solution that would provide LTE at 400 MHz, enabling most countries to reuse current TETRA assets.

At a joint press conference Alcatel Lucent and Cassidian started by outlining the reasons for their partnership – and the LTE-rich future. 'Everyone is now aligned with the fact that there is no country in the world that is not aware that it must have a mission-critical dedicated network for public safety. That being said, information flows are building, the data evolution is on its way,' said Jean Marc Nasr, Head of Secure Communication Solutions at Cassidian, who then handed over to Philippe Keryer, President of Alcatel-Lucent's Networks Group: 'We can sum up the reasons why LTE was chosen as the technology of choice for mobile wireless. Firstly, all the comms providers in the world have chosen LTE as the 4G evolution. By this choice the public safety industry has enabled good economies of scale to be delivered from the world telecom market. And it has already been chosen by public safety agencies in the USA for the future. So it is important to also remember that it is live and running. At Alcatel Lucent we have 25 networks up and running in the world, including the two biggest in the US, so it is proven technology.'

Last year at Tetra World Congress in Budapest, Alcatel and Cassidian announced that they would jointly propose a solution of broadband over PMR. 'The goal at the time was to jointly innovate an LTE initiative for the benefit of the TETRA user community,' said Philippe. An end-to-end solution was proposed using TETRA assets, and during the TWC in Dubai this year the solution was presented to the market. 'This LTE technology will offer an order of magnitude faster than TEDS can propose. And because it is at 400 MHz it will offer public safety and metro operators the ability to reuse all their TETRA assets – so the cost of ownership is really benefiting.' Philippe added that by bringing LTE at 400 MHz the number of sites needed for an LTE network would be minimised because existing base stations could be used. 'Cassidian is providing the terminal, as well as working on the

all the applications to leverage the network, and we have joint work on base stations to ensure a smooth integration of TETRA and LTE base stations.'

The newly launched Evercor solution uses Alcatel-Lucent's eNodeB base stations engines, wireless packet core and backhaul solutions, and Cassidian LTE 400 Remote Radio Head, terminals and applications. The LTE 400 eNodeB can be incorporated in Cassidian's new TB3S TETRA base station. Alcatel will be providing the platform and indeed this is already proven technology with 20,000 already shipped around the world. 'But the adaptation to 400MHz is unique. The result is an end-to-end solution which is a world first – you now have available LTE at 400 MHz,' said Philippe.

This frequency has been selected because it is regarded as the most cost-effective way to bring broadband worldwide, as it is the most frequently used. 'We are confident with lobbying and the help of the TETRA association and others that there will be a snowball effect due to the fact that our solution is cost effective, so we may convince the frequency authorities of the countries to embrace data.'

Cassidian's Jean Marc Nasr explained that the base stations now being delivered were integrating TETRA and LTE in the same cabinet. 'This will be extremely efficient for our customers – no need to change the infrastructure or most of the investment.' Of course, the transition to LTE will take some time according to the allocation of frequency, and Cassidian will progressively develop terminals to reflect this, 'So we will not do an LTE-only terminal, it will progressively migrate from TETRA to TETRA plus data via LTE, then to full LTE solutions when frequencies are available.'

It was then announced that a vehicle router that allows the police to connect either on TETRA, P25 or TETRAPOL, commercial networks – as well as LTE – would be launched summer 2012. Jean Marc Nasr then concluded by talking about frequency, saying that until 2026/27 there would still be a lot of TETRA networks around the world. 'So narrowband will still be the mission critical solution for the next 10 or 15 years. Then we will see broadband PMR for voice and data, we hope at best around 2020, maybe later depending on the country. By then we will have developed the full suite of solutions for broadband PRM, developed with Cassidian and with all the features you find on TETRA, on top of the LTE layer.'

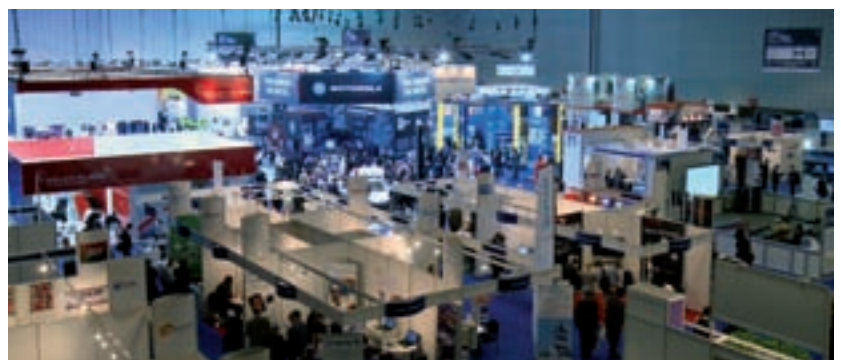
The porting of those TETRA features into LTE is the main R&D investment at the moment for Cassidian.



Tom Quirke, Motorola Solutions, said that while 90% of data applications could be supported using TEDS on a TETRA network, for high quality video a public safety LTE network was necessary.



Cassidian's new TB3S TETRA base station.



It is time to think Long Term Evolution



David Taylor explains why mission-critical users are well on the way to enjoying the benefits of high-speed data.

*4G is now a reality for consumers – but what does this signal for emergency users?
David Taylor, Lead Consultant, Analysys Mason, explains.*

Ofcom's recent approval of spectrum for 4G services has brought forward the launch of commercial services in the UK by many months. Everything Everywhere's LTE service is being rolled out before Christmas in the UK, bringing the next generation of mobile broadband to consumers. With this new flurry of activity from the commercial networks, what are the implications for the emergency services?

The avalanche of interest in 4G has been sparked by two key announcements this month. Having received approval from Ofcom to use its existing 1800MHz spectrum for 4G services, Everything Everywhere announced plans on 11 September 2012 to launch 4G in 16 cities in the UK – starting with London¹. The following day, Apple launched the iPhone 5, the European version of which has support for the same 1800MHz band that Everything Everywhere will use. Very soon, therefore, 4G will be a reality in the UK, although other operators will have to wait until the planned auction of additional spectrum for 4G (in the 800MHz and 2600MHz bands), due to take place in early 2013.

Everything Everywhere is already testing its new network, operating the technology standard known as LTE ('Long Term Evolution'), which is rapidly expanding across the world, and is becoming the de facto 4G technology.

The first publicly available LTE network services were launched in Sweden and Norway at the end of 2009 and, at the time of writing, there are some 20 operational LTE networks across 10 countries in Western Europe, and worldwide, there are now 40 different countries with operational LTE networks. Currently, LTE networks are used exclusively for data services while existing 2G and 3G networks carry voice.

Mobile broadband is increasingly used in public safety operations, and higher data rate requirements mean that 4G services could be the future for emergency communications.

Mobile broadband for the emergency services

The desire for mobile broadband services among the emergency services has been identified in Europe, Australasia and North America, with a number of studies, including one carried out for the TETRA Association (now the TETRA & Critical Communications Association (TCCA)) by Analysys Mason³, identifying the need for higher mobile data rates and more data-centric applications.

Video transmission tends to drive the need for commercial mobile broadband, but there are other applications used by the emergency services which, if taken up by many users in a limited geographical area, would stress current 2G and 3G networks.

Many of the data applications already used by the emergency services are considered to be mission critical⁴ or are likely to become mission critical if organisations become more reliant on them over time. Location services (for vehicles and officers) have become mission critical, with operational effectiveness likely to be severely impaired if these services fail. And situational awareness, where personnel are provided with graphical information on their environment, could be seen to be mission critical in future, e.g. if an officer is given a warning that there may be firearms in a house they are about to enter, something that might currently be done by voice.

Emergency services use dedicated networks to carry mission-critical data, but these generally only support low data rates. Public commercial networks are also widely used by the emergency services, but usually for non-mission-critical traffic. There is no guarantee of service, and many radio sites on public commercial networks have limited back-up power (in some cases less than an hour). In many situations we encounter, emergency service networks have back-up power for eight hours minimum at all radio sites, and selected sites have power protection for



Figure 1: evolution of the GSM/UMTS family of standards [source: Analysys Mason, 2012].

The dominant standard for 4G

LTE is the dominant standard worldwide for the next generation of mobile services, commonly referred to as 4G. It represents the evolution of the GSM/UMTS family of standards², illustrated in Figure 1, and is designed to co-exist with 2G and 3G networks, providing a smooth path for the introduction of 4G services.

Key attributes of LTE include:

- higher data rates compared with current 3G services (peak downloads of up to 300Mbit/s and upload rates of up to 75Mbit/s, depending on the equipment and spectrum used)
- low latency, intended to get closer to the experience of using fixed-line communications
- improved mobility, including performance at high speeds of 350km/h or greater
- support for efficient communications broadcasting (e.g. for video broadcast, and maybe, in future, for group calls).

days. Key equipment components are duplicated, and communications links may also be duplicated.

So, the fact that public commercial networks do not currently meet the resilience and availability requirements of the emergency services is driving the need for dedicated solutions for mobile broadband, as is being demonstrated in the USA.

The lessons from the USA

In the USA, LTE has been firmly embraced as the technology for public safety mobile broadband, taking a lead for others to follow. In January 2011, the Federal Communications Commission issued an order and proposed rule-making that requires all 700MHz public safety mobile broadband networks to use LTE to support roaming and interoperable communications. Spectrum in the 700MHz band had already been allocated for public safety mobile broadband (2×5MHz). In February 2012, legislation was passed allocating the so-called 'D Block' (a further 2×5MHz) to public safety, establishing the First Responder Network Authority ('FirstNet') to set up a nationwide, interoperable public safety broadband network, and providing \$7 billion to help finance the network build.

In addition, a number of trials of LTE for public safety have been carried out in the USA with various vendors including Motorola in the San Francisco Bay area, Alcatel-Lucent in the City of Charlotte, and Harris at Dallas/Fort Worth International Airport. Various partnerships have emerged, typically bringing together LTE equipment specialists with established suppliers to the public safety sector. One such partnership is Alcatel-Lucent with Cassidian, which, as well as addressing the 700MHz market in the USA, has announced an LTE solution for public safety in other countries targeting the 400MHz band.

In Europe, there is also significant activity and the current focus is on obtaining harmonised spectrum for public safety mobile broadband. The Council of the European Union has recommended that law enforcement agencies should have high-speed data capabilities, that work should be carried out to identify suitable spectrum below 1GHz, and that there should be a European standard for public safety mobile broadband.

A new project (FM49) was set up by the European Conference of Postal and Telecommunications Administrations in 2011 to work on identifying suitable spectrum for Europe. Meanwhile the recent World Radio Conference agreed to consider the allocation of 'digital dividend' spectrum at 700MHz for mobile use in Europe and the Middle East, and included plans to consider public safety at the next conference in 2015.

Demand for mission-critical mobile broadband isn't confined to the emergency services. In April this year, the Critical Communications Broadband Group was instigated under the auspices of the TCCA to drive the development of common standards and to lobby for spectrum for mission-critical mobile broadband. The group has broad membership, including the International Union of Railways

and European Utilities Telecom Council, as well as European public safety organisations and some representatives from outside Europe.

LTE – the preferred choice for public safety

It has become clear that LTE is the preferred technology for mobile broadband for the emergency services. However, users also rely on critical functionality provided by current narrow-band networks. Examples include talkgroup operation (providing rapid access to talk to a pre-defined group of people), and direct radio-to-radio communications that can be used for local communications where there is no coverage, or in the event of a network failure (often referred to as 'direct mode').

Many of the attributes of public safety networks are catered for in the LTE standards (e.g. provisions for control and prioritisation of access) or can be catered for in the network design (e.g. resilient architecture). However, this is not the case for direct mode, and this is something that LTE must address if it is to be able to meet all the emergency services' communications needs. Without such services, traditional narrow-band public safety networks will need to be operated for critical voice functionality in parallel with LTE providing broadband data. This is the model of operation currently being adopted in the USA.

Recognising the long-term aspiration to be able to meet all emergency service requirements on a single network platform, industry efforts are underway to build talkgroup functionality and direct radio-to-radio communication into the LTE standards, with the European Telecommunications Standards Institute, CCBG and the US National Telecommunications and Information Administration (NTIA) among those driving this forward.

The road ahead

For consumer and business use, 4G has arrived in the form of LTE. All operators have announced aggressive roll-out plans, and we can expect to see the impact of widespread deployment over the next few years, starting for UK users with Everything Everywhere.

For public safety users, the attractiveness of the technology is clear, and it has been firmly embraced by the supplier base. However, there's a long journey ahead to find European spectrum for dedicated networks and for LTE to incorporate critical public safety functionality into its design. Nevertheless, the past year has seen enormous progress and mission-critical users are now on the way to enjoying the benefits of high-speed data.

References

- 1 Ofcom granted approval on 21 August 2012, see its press release at <http://media.ofcom.org.uk/2012/08/21/ofcom-allows-everything-everywhere-to-use-existing-spectrum-for-4g/>
- 2 The GSM/UMTS family of standards is now maintained by the '3rd Generation Partnership Project'.
- 3 For further details, see Analysys Mason's report for the TETRA Association, *Public safety mobile broadband and spectrum needs*.
- 4 *Mission critical: describes a service or element whose failure is likely to severely jeopardise the ability of the emergency services to perform their mission.*



Transition to PSN: brave new world

Patrick Clark, engagement and transition lead for PSN in the Cabinet Office, wants to hear from British APCO members that are planning a telecoms reprocurement or simply want to find out more about the Public Services Network. Jose Sanchez reports.

The emergency services are the next focus for the Cabinet Office's PSN team, and a targeted consultation is currently being formalised with CLG and CFOA.

Patrick Clark is the engagement and transition lead for PSN, focussed predominantly on non-central government public sector organisations. A counterpart to Patrick exists to engage with central government departments and agencies. Whilst for central government PSN is effectively mandated under the government's ICT strategy, no such mandate exists outside central government. Patrick's remit is voluntary and he feels that a mandate were it even possible would probably not be necessary or particularly helpful in the non central government environment. His approach is much more 'stakeholder-based', involving a vast and diverse range of organisations of all sizes with one thing in common – they all consume telecoms services in order to deliver services.

Over the last year the primary focus has been on local government, who have been the primary drivers and advocates of PSN, resulting in 32 regional partnerships. 'Local government has been at the forefront of PSN thinking, which makes sense because one of the things that PSN does better is enables agencies and PSN service providers to interoperate and share by getting everybody onto the same logical platform. So whilst PSN is a network of networks provided by multiple suppliers, it creates the effect of a single network – and that is a huge benefit in the local government and wider local public service space.'

Patrick is very clear in the message he wants to go out to British APCO's members. Anybody wanting to look at PSN should email his team (psn@cabinet-office.gsi.gov.uk) as a starting point. 'Any organisation that is involved in the delivery of public services at local or regional level should get in touch. Not just on the basis of being interested in PSN, but also if they are planning the reprocurement of any telecoms in the near future I would encourage them to get in contact before deciding on the approach. Why? Because it's important that they are appraised of the PSN programme, its objectives and developments across the public sector before embarking on reprocurement of telecommunications services.

'If any of the blue lights would want to contact me directly I would be happy to talk, and one of the things I would like to know is their current telecoms contractual landscape.

The more information I can get about that the better I can mobilise resource to support them. So, for example, if I can see they have a WAN procurement coming up I can support them in maximising the opportunity to reduce the cost of acquisition, and obtain best value and collaboration with other public service providers.

PSN and the emergency services

Patrick and his team are beginning to shift their focus towards the emergency services. A more targeted consultation with the fire services is currently being formalised with CLG and CFOA, and Patrick started a dialogue earlier in the year during CFOA's annual ICT conference. He is now looking to visit regional fire services to talk to them about PSN opportunities.

The primary benefit of PSN is that it operates on common standards that are more closely aligned to commercial industry best practice, 'What we have tended to do in the past is buy services that require new investment by telecoms suppliers and that cost gets passed on to us, so it's about better positioning ourselves to take advantage of wider market investment.'

The standardisation and adoption of PSN is expected to bring a number of advantages to the emergency services. First is the ability to better interoperate with other parts of the public sector: 'Adherence to PSN standards in the supply and consumption of telecoms will make it easier to share services and data because different networks and telecoms services will interoperate and different organisations will be more able to trust each other to be operating to the same standards. So we will be able to share services and data more easily and efficiently over PSN regardless of who our network supplier is. Anyone on the PSN should be able to consume any service that they are authorised to consume from anywhere on the PSN.'

An accreditation process is managed by the PSN Authority, ensuring that services and connectivity interoperate – and suppliers must be re-accredited on an annual basis. An information assurance programme is also in place to ensure all users can – essentially – trust each other to be operating to agreed common standards. 'A PSN

TELECOMS SPEND

The public sector spends an estimated £2.5bn per annum on telecoms services. Over 50% of this is in non-central government. PSN is aiming to significantly reduce this commitment by 2014-15.

Source: Cabinet Office.

code of connection is required for consumers to operate over PSN. That has to be achieved, validated and renewed on an annual basis, again managed by the PSN Authority. It is a code that says you'll agree to abide by the governance of the PSN Authority, and apply certain standards in the way service management is carried out, stating what you are doing to meet the base level of security to operate on the PSN.'

The Frameworks and the future

There are two PSN procurement Frameworks now in operation. One single lot for network connectivity and a second multiple lot Framework for a broad range of commonly used telecoms services. Patrick sees the Frameworks as highly significant. Firstly, it provides a convenient place for service providers and public sector organisations to enter the PSN marketplace and – secondly – it evidences that such a marketplace exists in the first place ie suppliers are prepared to invest in the supply of PSN services.

Patrick does not want the potential of PSN to be understated now that some regions have made significant investments. 'What is crucially important now is that we exploit the opportunity that PSN presents. Those already set up regionally can now start to look at what is happening on a wider basis. If there is something on the other side of the country that can be pulled across the PSN, then that is now possible. I think the time has come to look beyond the region. Naturally, regionally is where there will be the most interaction and collaboration initially, but organisations can also take advantage of innovations elsewhere. It might be a local authority that has set up a service that is quite generic and which could be shared with another local authority elsewhere in the UK, generating significant savings and the ability to consider more innovative approaches to service delivery.'

Patrick's team is taking the next step and demonstrating clearly what can be done in terms of business improvement. 'Our focus up to now has been more about networks procurement and the savings that can be generated quickly by improving the way we do that, but in a way that is the "boring" stuff. The interesting stuff is realising the potential to change the way we deliver services and joining them up, demonstrating what is possible, and highlighting it.'

Patrick admits that it is still relatively early days in terms of the PSN journey and although savings are clearly being made through improved network procurement and operation it is not easy to quantify the overall potential savings and efficiencies. However, there are plans to produce case studies from individual PSN deployments.

The PSN Frameworks have been put together with flexibility in mind and in consultation with a broad range of stakeholders, including police, government departments, and local authorities. Services can be procured for as little as one year or up to five years (plus one, plus one – seven in total). The Services Framework will be refreshed every

two years without affecting running contracts, which will enable new lots to be added or current ones amended, and Patrick sees this as a key way of encouraging new entrants to the marketplace as well as innovation.

PSN and the Police National Network

The Police National Network (PNN) is a framework arrangement designed to provide data and telecommunications services to all forces and criminal justice organisations. It was originally designated by the Home Office as a replacement to the fixed network used to access the Police National Computer, and its services include National IP Network (CJX, xCJX and SCN); telephony; web hosting; and remote access.

An agreement on the approach to the replacement of PNN is described by Patrick as 'imminent', and the NPJA is currently leading the PSN Policing project. 'We are working with them to make sure that whatever replaces PNN3 is aligned to PSN and enables transition to PSN in a fashion that does not disrupt business as usual. But it is safe to say that police forces will need to consider their PSN plans because that is where the rest of the public sector and suppliers are going. 'The question is not so much should I adopt PSN but when and how should I adopt PSN. I would encourage all the blue light community to talk with us.'

PSN: AIM

To have a set of shareable, interoperable services that run over PSN, reducing duplication and waste across the public sector.

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The insider's view

Airwave is listed on the PSN Services Framework for Paging Services (Lot 7) and Gateway Services (Lot 9). Jose Sanchez de Muniain spoke with Ross Macindoe, Head of Future Networks, Airwave, to find out what the process involved and what it means for users.

June 27th saw the announcement of the 29 suppliers listed on the new PSN Services framework established by Government Procurement Service (GPS). The services range from CCTV and physical security monitoring, to video – and teleconferencing systems, call/contact centre services, mobile services (voice, SMS, data), messaging services, and secure gateways.

Did you have to redevelop your service offerings to join the Framework?

The work we did for Lot 9 didn't require any development: it involved documenting and rewriting the services already on offer, so that customers would have terms and conditions and pricing points agreed in advance.

The introduction of our new paging devices (Lot 7)

coincided with the PSN Framework – the technology world doesn't stand still and new products are continually being launched.

What kind of services within the Managed Gateways Lot did you already have in place?

Our Gateway to the Police National Computer service – Criminal History System in Scotland – provides secure digital access from police terminals using a WAP application over the Airwave Network. The service has been in place for several years now. The Fire Mobilising Gateway Service enables the mobilisation of fire crews to attend to emergency incidents.

The PRONTO Hub, supplied via Airwave group company Kelvin Connect, enables users to capture information on a

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DEFENDING WORLD SECURITY



mobile device and upload it to the Hub, which is then used as a gateway to databases held by virtually any blue light service.

Did Airwave bid for other lots?

Initially we did consider bidding for more than the two. However, we decided to concentrate on Lots 7 and 9.

What are the drivers for users to purchase these services from the Framework?

The main driver of the Framework is that users are no longer required to go via a lengthy tender process – instead, the process is a lot smoother and shorter.

What are your expectations of the Framework?

The Framework is a route to market, and we expect it will remove some of the barriers customers have to go through to tender.

When looking at paging services in particular, you would imagine users' first point of call would be the suppliers listed in PSN.

Aside from cost, what type of factors can users take into account when choosing a paging service on the Framework?

Details of the coverage, availability, services on offer – for example managed/ hosted service – as well as maintenance, training, pricing options, and the functionality of the products will be easily visible. For example, one of the functions of our pager is the 'man-down' feature, which can set off an alert when the user is horizontal.



Airwave's latest paging devices coincided with the development of the new Services Framework.

What are the main issues that the PSN will solve?

The PSN will commoditise products and services and reduce pricing as a result. A knock-on impact of commoditisation is standardisation, which will be beneficial to suppliers in terms of understanding how to make new services and products that will integrate easily into customer environments.

What has been the response since the Framework announcement?

It is still early days, but we are confident in the opportunities the Framework will deliver.

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South West Programme achieves CoCo in readiness for PSN

British APCO Journal catches up with Graham Saunders, Programme Manager of the South West FRSs' Secure Information Interchange Programme, to find out more about this leading initiative.

**The Code of Connection (CoCo) requirements must be met for local authorities in England and Wales to connect to the Government Secure Intranet Convergence Framework (GCF). Information on the CoCo compliance requirements can be found on the Cabinet Office's PSN website (<http://www.cabinetoffice.gov.uk/content/public-services-network>).*

Just before the summer a number of south west fire and rescue services started rolling out a range of data encryption systems. Dorset, Wiltshire, and Devon & Somerset Fire and Rescue Services are installing new solutions that will cover disk encryption for IL 2 (protect) and IL 3 (restrict) level data, as well as include two-factor authentication, removal media encryption and central management.

The driver for the initiative is a wider programme to enable south west fire services to connect to the Public Services Network (PSN), explains Graham, 'The encryption part is one of the things that had to be done to meet the Code of Connection* (CoCo) to the Government Secure Intranet Convergence Framework (GCF) – and it involves encrypting hard drives on laptops and PCs so that even if they were stolen and the hard drives taken out and put in another computer, they wouldn't be able to be read.' The GCF will eventually form part of the PSN.

Being connected to the PSN will enable the secure exchange of sensitive information up to Restrict (IL3) level between the fire service and external partners such as the police, ambulance, and social services. In many cases, the data being shared refers to client groups that involve multiple agencies. 'The owner of the data has the responsibility to ensure that if they share it with another organisation, that that organisation will keep it secure with the right processes. In the past they haven't been able to be certain, and therefore have been reluctant to share.'

Setting up good practice in information security, including encryption, will help break down the barriers to sharing data, envisages Graham, because the new system is so robust. The solution is being supplied by Bcrypt, which at the time of the procurement was the only company accredited to meet the government standard for restricted level (CESG Product Assurance scheme).

Laptops used by key operational staff (including silver level commanders) contain Bcrypt DISK Protect CPA software, and staff dealing with prevention services will have DISK Protect Commercial installed within their PCs, to

protect sensitive data such as medical or criminal records. 'The other element of the project is two-factor authentication, which comprises a USB stick with an accompanying PIN code, like a cash card. When logging in, the user has to insert the USB stick and PIN, ensuring only that person can read that computer. In addition, we are also initiating protective marking of documents.'

Vikki Shearing, Head of Information Management at Dorset Fire & Rescue Service, adds: 'Bcrypt has been flexible and supportive during the implementation, providing detailed training to ensure that our initial set up was correct. It is still early days, but feedback from end users is positive.' Vikki continues, 'Using one supplier for all these levels is not only easier to manage, but cost effective, and it enabled us to meet our deadline to have the system ready before the Olympics.'

Capital funding of £1.1m had been made available through the South West Councils' regional improvement partnership, as part of a vision to improve sharing of information. Following the initial funding approval in March 2011, the business case then received the go-ahead in September 2011, explains Graham, whose previous role as regional programme manager meant he was responsible for putting the bid together.

One of the conditions of funding was that case studies should be produced and shared, and Graham hopes that these will encourage others to do the same and to benefit from the lessons learnt by the Programme.

Graham is positive about the end result. 'Improving information security is a bit like an insurance policy – if things do go wrong it can be terribly expensive to repair and the damage to an organisation's reputation can be long lasting. If a cyber attack results in your network going down or data being corrupted, then that can have a life or death result. The measures that we have put in place enhance resilience.'

'The trick is to embed information assurance in general business processes in much the same way as equality and diversity, and sustainability impact assessments.'



UNICORN is alive in Surrey and Berkshire

A single PSN-compliant network is to connect upwards of 20 public services in Surrey and Berkshire replacing around 40 networks. Mark Lumley, the shared Head of ICT at Elmbridge Borough Council and Epsom & Ewell Borough Council, explains how it happened.



The BT contract was announced at the end of September and will see BT joining up to 40 separate networks in the two counties with just one network known as UNICORN.

UNICORN will be available to all public sector bodies in the region and will feature cloud services linking up computer and comms systems.

The project was originally launched by Surrey County Council for the Surrey First partnership, which also includes Surrey's 11 borough and district councils as well as Surrey Police Authority. The deal, said Surrey County Council's cabinet member for change and efficiency, Denise le Gal, will save the county council an estimated £5.24m.

As the shared head of ICT for the two borough councils of Elmbridge and Epsom & Ewell it could be said that Mark Lumley embodies the necessary new world of shared resources and collaboration. For the last two years he has been splitting his time 50/50 between the two locations as well as chairing SCITO – the Surrey Chief Information Technology Officers group. SCITO's aim is to support the joint councils' strategic aim of enabling public services in Surrey to deliver integrated, cost effective, accessible, and high quality services to residents and customers. 'The group started as a way of getting together to share new ideas but over the last couple of years, with the emphasis on cost savings and working together, it has led to the introduction of "Surrey PSN" – or the equivalent of it – as well as the Surrey data centre.'

UNICORN, explained Mark, is PSN compliant, and while the new network will lead to savings, the important aspect is that it will enable local government to deliver services in a different way: 'Which is where you can make some genuine savings – by sharing buildings for example.'

The issue of sharing public sector resources is particularly pertinent to Surrey, where in 2011 it was announced that 15 police stations were to close in order to safeguard jobs, with staff redeployed to other buildings.

Many officers are now working in Borough and District Council offices, said Mark, and whilst the organisations are

on different networks things could change with the advent of the new network. 'UNICORN changes the possibilities, and we now have the option to do something really different, which I think is very exciting.'

Getting to this point has been challenging, admitted Mark, mainly due to the number of organisations involved – over 12 councils – which could have resulted in an unwieldy management board. 'Trust has been a big part of this project, and we actually had two or three representatives that everybody put their trust in, working with the county to achieve something that is fit for purpose.'

The detailed and complex procurement process presented another major hurdle, highlighted Mark, 'At SCITO we spent a lot of time discussing with chief executives the value and potential opportunities of UNICORN. Yes, the wire that comes into the building is now cheaper, but fundamentally we are encouraging people to think about delivering services to Surrey differently. So for example we could link police to our community support and logistics services – but that's not something that will happen in 10 minutes or a year, it's a longer term view.'

Immediate benefits are for example the consolidation of data centres, so that each District Council and Borough no longer has to support its own server room. In addition, staff can now work in different buildings whilst accessing their own networks and desktops. 'That starts to create a flexible workforce across boundaries and organisations, and potentially it will be very powerful.'

'But we have been clear all the way through the conversion, we are doing this for the residents of Surrey, and not because it is an exciting bit of technology.'

Mark regards Surrey's own 'network of networks' as a once-in-a-lifetime opportunity that isn't going to happen again during his career. 'The potential is huge – and the network is growing. It started life as "Surrey PSN", now it is UNICORN because it goes across boundaries to Berkshire. We've proved that geographic proximity is no longer a problem – it's as simple as that!'



Mark Lumley emphasises that the potential of UNICORN is huge; a once-in-a-lifetime opportunity that won't come up again during his career.



During the summer PSNGB held a number of events to spread the PSN message, including one in Imperial College London (above) and Leeds University (right).



PSNGB was incorporated earlier this year and its objectives are to bring together the collective strength of suppliers to continually develop the PSN marketplace and to promote this to users.

Why PSNGB?

PSN originally developed and evolved around a group of suppliers working with Cabinet Office and other parts of government to develop the technical and commercial standards that define PSN. As we completed the initial standards and those work streams were dissolved, we all recognised that there was a need for a group to represent industry's expertise and views back to the Cabinet Office and PSN Authority and to promote PSN in the marketplace. The initial PSN standards are agreed but as we start connecting PSN in anger and departments and authorities begin using it, we need both to iterate and enhance those standards and to extend them further. For example, work is now underway to complete standards in the areas of voice and video communications across PSN to ensure interworking and reduce costs.

Where is PSN now in terms of take up?

It is still early days because the standards were set last year and the two Frameworks went live in the last three months. Having said that, we are already seeing real progress on several fronts. Both suppliers and users are achieving PSN certification for their networks and services, ready to interconnect these. Central government is mandated to achieve PSN compliance by 2014 and their transition plans are very advanced in terms of the major departments. Non-central bodies are also making rapid progress with their transition plans to PSN, with some regional groups leading the field. A further driver is the fact the existing government intranet must transition to PSN soon. Many procurements have already made use of the PSN Frameworks and these will continue to increase.

And the emergency services?

Nobody in that community is mandated to become PSN compliant. However, there are big benefits to complying and connecting to PSN, and good reasons to do so. They currently use the GCF network to communicate with other

PSNGB: working at the coal face

British APCO Journal speaks with Neil Mellor, Marketing Director for PSNGB – the newly-created trade association for suppliers of PSN services to the public sector – about joining the network of networks.

parts of government and that mechanism comes to an end in the next 18 months. Secondly, the competitive and open nature of the PSN Frameworks gives the blue lights the opportunity to buy connectivity and services at better value and lower procurement cost.

What does the transition to PSN involve?

It is difficult to generalise as it depends where you start. For a lot of local authorities it's not necessarily a big shift to connect to PSN for the simple reason that the compliance requirements – the Code of Connection (CoCo) to connect are very similar those they're familiar with for GCSX/GCF. There is nothing onerous you have to do, but readiness for PSN does depend on the network environment you've got and how up to date it is. For somebody who's running a modern network with up to date security policies then CoCo certification should be straightforward. With older infrastructure that perhaps doesn't meet the baseline security requirements – eg CAS-T assured IL2 capable circuits – then some upgrading may be needed.

The first thing a user has to do is look at the requirements of the CoCo, the certification to connect to PSN. This involves examining the existing environment you wish to connect to PSN and doing a gap analysis against the CoCo requirements. This is probably 2-4 weeks' work. It is worthwhile contacting the PSN Authority early, before starting the process of applying for certification, to obtain their guidance. The volume of applications is increasing but for many users certification is achievable in 2-3 months.

Can you talk about some specific benefits for emergency services?

The police is showing interest given the potential to collaborate and share services through PSN, although the security requirements are higher – IL3 and possibly IL4, which is more challenging. Across police it is accepted that framework procurement and PSN compliance are the way to go for value and interoperability, but PSN may take longer to implement because of tougher requirements.

Will all emergency services be on PSN?

Yes. I would expect the majority of the public sector to connect to PSN in the next two to three years.



Neil Mellor is the Marketing Director for PSNGB, as well as the Development Director for PSN at BT Global Services.

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