



BRITISH ASSOCIATION OF PUBLIC SAFETY COMMUNICATIONS OFFICIALS

# JOURNAL **BAPCO**

➤ Custody suites and recording evidence: the digital journey that lies ahead for the police.

➤ The end of FiReControl marks a change in focus for Cassidian.

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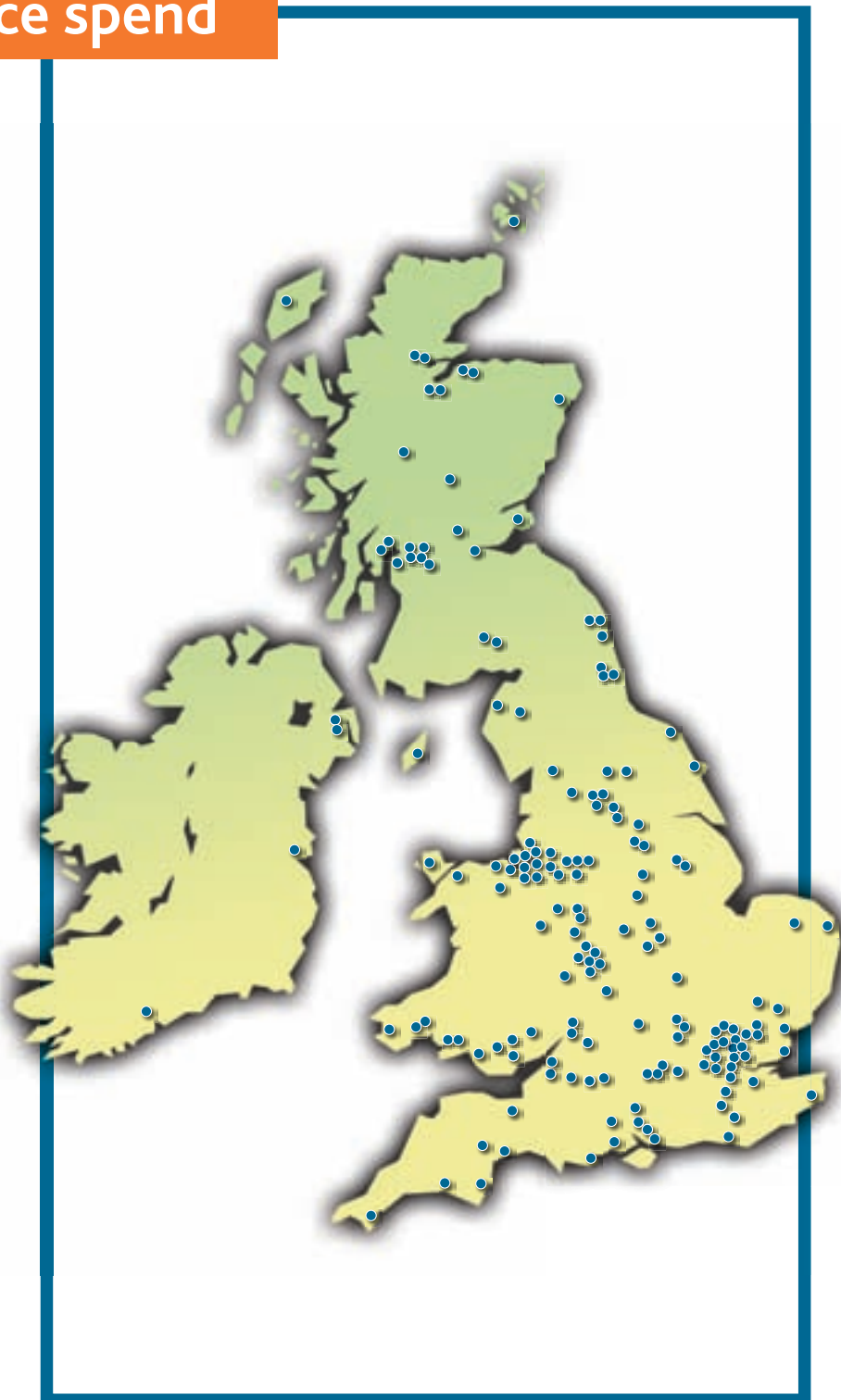
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## President's address



**Alan House, President**

As we approach our annual conference and exhibition, all members of the Executive Committee are busy with tasks designed to

continue with the reshaping of BAPCO in order to prepare it for future challenges and opportunities.

The pace is fast and the range of activities is testing but exciting.

We have delved deep into our organisational history and structure, producing a draft business plan, revising our financial and administrative procedures and combining our inherited bye-laws and constitution into a new constitution which we consider to be more appropriate as we move forward. This new constitution will be presented at our forthcoming AGM.

When I took on the role of President Elect, I knew that there was a need to change. I probably underestimated at that time just how great the change needed to be, and

one thing that quickly became apparent was that the needed changes could not all be carried out as a quick fix – and to be done correctly it could not be completed overnight.

Now, as President, with all of the good work that has gone on in recent months, I am confident that all of our members and partners will see many good changes become more apparent over the next six months, building on those which have already been implemented.

I would like to thank all of the Executive Committee for their hard work and their obvious commitment to making BAPCO a better organisation and one that will continue to be the Association of choice for many years to come.

## CAG column – can cuts and exhibitions co-exist?



**Dave King, CAG Chair**

Well, the financial year is nearly over and a new one is about to begin. But it is also what I like to call 'show season' for the next three to four months, as there have traditionally been quite a lot of conferences and exhibitions from now until July. Whether this will happen this year and the next will be interesting to see.

Conferences tend to rely on exhibitions to fund them and exhibitions rely on

attendees to make them viable. And because the attendees that the exhibitors mainly want to see are public sector staff: 'Houston, we may have a problem', as the expression goes.

With spending cuts, attendance to these types of events will be classed as low priority – but why? We all hear about spending cuts and cost savings, but we don't talk about the vast amounts of money that are nevertheless still spent, and the costs that have to be incurred.

So if you have a need – or may need – to spend some money on a new product or service, how do you know what is on offer? What is new? And how to achieve the best return on investment?

Is the answer the internet? Your incumbent supplier? Consultants? Your current knowledge? All are options that are often used, but surely an exhibition or conference has to be an option too?

So why do a lot of people say it is hard to justify attendance? Maybe it is still perceived as a bit of a jolly; or too

expensive to travel to (as they are not local) – I don't know.

It will be interesting to see how many fire service staff attend (or are allowed to attend) communication exhibitions in the next few months.

With the demise of FiReControl and the need to provide solutions, surely this is when interaction with industry is necessary.

At the time when FiReControl was being tendered, BAPCO was packed with fire service staff wanting to see what was out there, and to discuss what was going on.

If exhibitions and conferences are seen as a viable option for gathering information and an aid to understanding the world we all work in (public sector and private sector), then attending these events should be a higher priority. Alternatively they will cease to happen – and in the long run that would be a great loss. If you have any answers for me, please let me know what they are, I will be at an event or two in the near future! I just hope it isn't just the two of us.

## → London Emergency Planning Team applauded for response

London Fire Brigade's Emergency Planning Team has received a special achievement award for its outstanding response to the severe winter weather 2009/10. Working with partner agencies, the team made sure that London kept moving despite some of the most severe weather conditions in recent years.

The awards were presented by London Fire Commissioner Ron Dobson, Chairman of LFEPA Cllr Brian Coleman and Mayor of London Boris Johnson, at a ceremony hosted by ITV London presenter Ben Scottbrook on 25 February 2011.

The 24-strong team was nominated for the annual award for its efforts in running the London Local Authority Coordination Centre (LLACC), the Clapham-based facility responsible for monitoring and coordination of grit stock levels and rationing across all London boroughs.

During 'the big freeze', LLACC provided critical support to borough councils and other partner agencies like TFL and London Ambulance Service, covering more than 250 shifts between 17 December 2009 and the end of February 2010.

More than 5,300 tonnes of grit were distributed on the request of the Brigade's emergency planning team, supplying grit to where it was most needed, including all 69 London Ambulance Service stations.



*Emergency Planning Team B (from left back row): Andrew Pritchard, George Willis, Kevin Hogan, Graham Burbage, John Dillworth, Mike Parish, Rowena Proctor, Mark Milnes, Jeremy Reynolds, Vanessa Skinner. From left, front row: Mark Sayer, John Draysey, Sarah Ng, Gretchen Fagg and Stuart Turner.*

## → Exercise Watermark is a multiple disaster



The nation's biggest emergency exercise took place across England and Wales last month to test responses to catastrophic flooding from overflowing rivers, collapsing reservoirs and tidal surges.

It brought together 10 government departments, 34 local resilience forums, emergency responders, water companies, hospitals and schools, to test responses to a

range of flood scenarios over four days.

Communities also took part, evacuating schools and hospitals and installing flood defence products to protect properties. This exercise was one of the recommendations made by Sir Michael Pitt in his review of the summer 2007 floods.

During the course of the exercise, the incident command centre in Wales coordinated efforts with strategic command operators, whilst feeding into national COBRA meetings at the Cabinet Office in London. The UK resilience project's experts engaged with emergency services who are not necessarily familiar with space systems and assessed their needs. The project team also added a test activation of the International Charter: Space and Major Disasters, to the exercise.

### EMERGENCY SMS

A voluntary trial enabling people to text the emergency services should be mandatory, Ofcom has proposed. The proposal forms part of a wider consultation on changes to Ofcom's regulations that need to reflect new European law that comes into effect on 25 May 2011. Under the new European regulations, access to the emergency services for disabled people must be as close to that delivered to other consumers as the technology will allow.

An Emergency SMS trial has been running in the UK for over a year and is predominantly used by deaf and speech-impaired people. The scheme has been successful with around one emergency text a day requiring attendance.

## → The Ten Step Cycle for local resilience

New guidance has been published to help local resilience forums implement their duty to communicate with the public, as per the Civil Contingencies Act (2004)

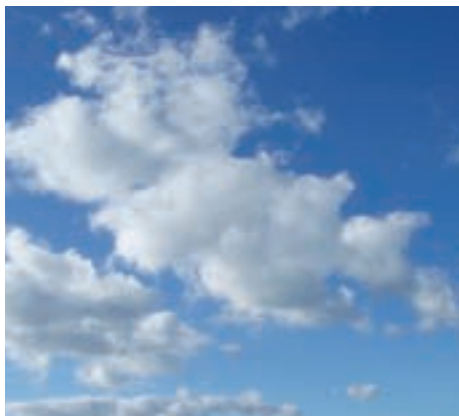
The *Ten Step Cycle* has been designed by practitioners for

practitioners, to help local resilience forums implement their duty to communicate with the public.

The practitioners from the National Steering Committee for Warning and Informing the Public (NSCWIP) in conjunction with the

Practitioners' Group on Warning and Informing the Public were led in the project by the Civil Contingencies Secretariat (CCS).

The guidance is currently being road-tested by a number of local resilience forums, with feedback helping to fine-tune the process.



## ➔ Beware the silver lining in the clouds

One of Europe's most secure online file sharing and collaboration solution providers is warning that businesses and organisations risk falling foul of UK and European legislation should they choose to store sensitive information in the public cloud.

Public cloud providers offer no specific guarantees on the physical location of their servers, which could, according to the European Union-commissioned report, lead to sensitive

data being stored at locations that contravene current legislation, such as the Data Protection Act.

With cloud computing being the number one technological priority for the coming 12 months, and the rise in the number of public cloud providers such as Google, Dropbox and others, Vaultium is advising caution when it comes to choosing a cloud-based storage provider.

### ASSURED FOR BUSINESS CONTINUITY

Cambridgeshire has become the first fire and rescue service in the UK to achieve the national business continuity standard BS 25999 after passing the stage two assessment. The decision was made by Cambridgeshire Fire and Rescue Service (CFRS) to pursue the standard to satisfy obligations under the Civil Contingencies Act and the Fire and Rescue Services Act 2004. These two pieces of legislation require all category one responders to have business continuity plans in place to ensure that core activities can be carried out in situations such as power failure, flooding, flu pandemics, fires in fire stations and extreme weather conditions. Work on gaining the standard began two years ago and to ensure the process was correctly followed, CFRS employed Det Norske Veritas.

## ➔ Wiltshire opts for Cadcorp

Wiltshire Police has chosen Cadcorp to deliver location-based information to many applications across the Force.

Cadcorp technology will be used to provide sophisticated modelling and analytical capabilities for crime and intelligence analysis; deliver live location data to the command and control system; be used for

tracking both personnel and vehicles in the force automatic resource location system (ARLS); be used in the emergency communications centre for logging and displaying the location of 999 calls and the response to those calls; and track the location of non-emergency calls in the force contact centre



## ➔ Military Police embraces mobile forensics



The Royal Military Police has signed a deal with mobile forensics specialist Radio Tactics for high-tech digital intelligence and evidence-gathering solutions. Radio Tactics will roll out its Aceso solution in locations across the UK and internationally. Aceso and Aceso Field are pioneering products that rapidly extract evidentially sound data from mobile phones, digital devices, SIM and media cards. Aceso Field is fully portable, providing personnel on the front line with instant access to the often vital information that Aceso can recover.

## ➔ Being prepared to be prepared

The Cabinet Office has published a document outlining some of the approaches to emergency preparedness training that will help support statutory guidance.

The document provides a framework to address the training implications of a business continuity management programme by looking at who needs to be trained, what they might need training in, and

how this training might be undertaken.

Chapter 6 of *Emergency Preparedness* highlights the need to have a training programme so that effective business continuity management arrangements can be implemented by staff when an organisation is disrupted.

Chapter 5 of *Emergency Preparedness* also states that the

'Regulations require a plan to include provision for the carrying out of exercises and for the training of staff or other persons. This means that the relevant planning documents must contain a statement about the nature of the training and exercising to be provided and its frequency.'

For more information visit [www.cabinetoffice.gov.uk](http://www.cabinetoffice.gov.uk)

## MILITARY DRIVES POWER INNOVATION



A revolutionary type of personal power pack now in development could help troops when they are engaged on the battlefield. With the aim of being up to 50% lighter than conventional chemical battery packs used by British infantry, the solar and thermoelectric-powered system could make an important contribution to future military operations. The project is being developed by the University of Glasgow with Loughborough, Strathclyde, Leeds, Reading and Brunel Universities, with funding from the Engineering and Physical Sciences Research Council (EPSRC). It is also supported by the Defence Science and Technology Laboratory (Dstl). The system's innovative combination of solar photovoltaic (PV) cells, thermoelectric devices and leading-edge energy storage technology will provide a reliable power supply round-the-clock, just like a normal battery pack. The team is also investigating ways of managing, storing and utilising heat produced by the system.

## ➔ Consultation on guidance

Consultation is sought on the practicality of new guidance compiled by the Critical Infrastructure Resilience Programme (CIRP), led by the Civil Contingencies Secretariat.

Titled *Keeping the Country Running: Natural Hazards and Infrastructure*, the guide was developed in response to the earlier consultation in 2009/10 on the Strategic Framework and Policy Statement for Critical Infrastructure.

The guide aims to support infrastructure owners and operators, emergency responders, industry groups, regulators, and government departments, and help them work together to improve the resilience of critical infrastructure



and essential services.

Responses received by noon on Friday 6 May 2011 will be considered.

For more information, visit [www.cabinetoffice.gov](http://www.cabinetoffice.gov)

## ➔ 3D tracking of mobile phones

NICE revealed the advanced capabilities of its 3D mobile location tracking solution at the GSMA Mobile World Congress that took place in Barcelona, Spain, in February earlier this year.

The NICE 3D Mobile Location Tracking solution monitors and analyses mobile device location, enabling law enforcement agencies and intelligence organisations to perform post-

incident investigations.

The 3D solution also enables compliance with the US's Enhanced-911 (E-911) and the European Union's E-112 regulations, which require wireless network operators to provide the latitude and longitude of callers, in order to know to which emergency services call center to route the call, and where to send emergency services.

## ➔ Missed commands a thing of the past with new covert earpiece

Swiss company Phonak Communications has unveiled the world's smallest digital covert earpiece.

The Phonito Nano is entirely invisible to the naked eye, ensuring the user's cover. Available in beige or dark brown, the Phonito Nano is built around a new Hybrid audio chip and inductive technology. This approach offers users leading sound quality and allows Nano to be used alongside any existing inductive wiring loops. According to

Phonak, the passive coil technology inside the Phonito Nano makes it less susceptible to interference. Following customer feedback from security professionals around the world, its 'ground noise' level has also been carefully optimised to ensure users hear enough 'switched on' buzz to feel confident their equipment is working, but not so much that communication is compromised. 'Phonito has long been established as the covert industry's

earpiece brand of choice and with the launch of Nano, we are once again raising the bar,' said Evert Dijkstra, MD of Phonak Communications. 'By reducing the earpiece's size by 20% compared to Phonito Digital (which Nano replaces), we can offer covert professionals further improved in-ear comfort, and by boosting the receiver's audio performance we are confident Nano will make missed commands a thing of the past.'



## ➔ Patient First adopts high-tech control IT



Patient First has boosted ambulance service performance with a high-tech fleet control system from Masternaut.

Combining satellite vehicle tracking, environmental management tools and fuel card integration, Patient First uses the system to provide non-emergency transport. The system provides real-time vehicle intelligence and historic data to the operations team, helping them to ensure safe, fuel efficient and eco-friendly driving by all the ambulance drivers. Patient First provides services to Shropshire (The Royal Shrewsbury Hospital), Telford (The Princess Royal Hospital) and Herefordshire NHS trusts (amongst others).

## ➔ Minister: a future without FiReControl

At the Local Government Association Annual Fire Conference 2011 Fire Minister Bob Neill MP talked about the future of control room services: 'This is one of the questions we are asking in the current consultation on the future of fire and rescue control services – to which I hope you will all take the opportunity to respond.

'Are the original objectives of improved resilience, efficiency and technology available to fire and rescue services still valid, and how might we achieve them now?

'I have said clearly that we will not be imposing a solution on fire and rescue authorities. And feedback so far suggests that technology upgrades you have already made,

together with plans you are developing, will go some way to meeting that deficit.

'Many are talking of closer collaboration and even sharing services – an increasingly common route in the wider local government landscape to achieve better and more efficient delivery.

'It is a challenge – but these are challenging times.

'I am confident that you will take the opportunity to build resilience, efficiency and technological advance by choice, from the solid foundation of your experience and expertise – from the bottom up, rather than central government imposing unwanted solutions from the top down.'

## ➔ German Red Cross on Traka for keys

The German Red Cross (DRK) has installed a state-of-the-art key and data protection system from Traka to control its home emergency service in Kreisverband Bitburg-Prüm.

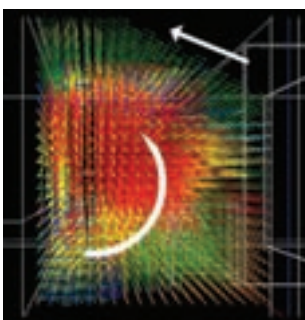
Over 650 households in the Kreisverband Bitburg-Prüm district are connected to the DRK home emergency call

centre. To ensure fast response, the service works closely with the DRK emergency medical service, which maintains eight emergency centres within the district. At each centre, keys to the participating residents' houses and apartments are now retained in 11 specially-

designed key cabinets.



## ➔ Open air chemical attack software is launched



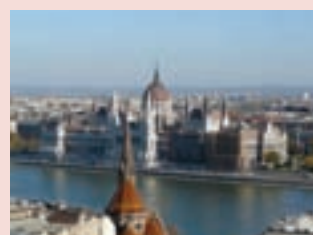
Hygie-Tech is launching a new product with the capability to scan outdoor spaces (as well as buildings) in order to develop comprehensive response and detection plans for chemical and biological attacks. Hygie-Tech uses its industry-leading software to process results from 3D laser scans in order to visualise air flows. Hygie-Tech's HG\_FlowProtect software has until now

been used by defence and security agencies to formulate disaster response plans for CBRN attacks on buildings that might be targeted by terrorists. Market demand has led Hygie-Tech to develop extended capability to cover open spaces, as security professionals need to plan for all eventualities when organising large outdoor gatherings such as international sporting events.

## ➔ Final run-up to TETRA World Congress

A new TETRA World Congress website has been launched ([www.tetraworldcongress.com](http://www.tetraworldcongress.com)), featuring the latest news and brochures as well as the ability to sign up to receive e-updates and register for the TETRA World Congress 2011, 25-27 May.

TWC is returning to Europe in May (Budapest, Hungary) with new conference features, discussion formats, networking options and a new brand identity. 70 companies have so far signed up to showcase their products at TWC, and over 150 speakers will be in attendance.



### CONSULTING FOR NEW NAG

Gazetteer specialists Aligned Assets will be offering consultancy to both the public and private sector on the impact of the new National Address Gazetteer (NAG). The NAG will enable all organisations to use address data from a single, definitive source. From April 2011 the Ordnance Survey's addressing products will be mixed with the NLPG to create the NAG, which will be available to the whole of the public sector.

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**BAPCO** MEMBERSHIP APPLICATION  
British Association of Public Safety Communications Officials

**1. PERSONAL DETAILS**

NAME: \_\_\_\_\_  
 TITLE: \_\_\_\_\_  
 ADDRESS: \_\_\_\_\_  
 POSTCODE: \_\_\_\_\_  
 BUSINESS ADDRESS: \_\_\_\_\_  
 HOME ADDRESS: \_\_\_\_\_  
 PHONE: \_\_\_\_\_  
 FAX: \_\_\_\_\_  
 E-MAIL: \_\_\_\_\_

**2. CATEGORY OF MEMBERSHIP APPLIED FOR**

ACTIVE  ASSOCIATE  CORPORATE  INTERNATIONAL

**3. ORGANISATION TYPE**

**PUBLIC SAFETY AREA SERVICES**

Police	<input type="checkbox"/>	Fire	<input type="checkbox"/>	Maritime	<input type="checkbox"/>
Coastguard	<input type="checkbox"/>	Rescue	<input type="checkbox"/>	Other	<input type="checkbox"/>
Other	<input type="checkbox"/>				

**ORGANISATION TYPE**

Government	<input type="checkbox"/>	Local Authority	<input type="checkbox"/>	Other	<input type="checkbox"/>
Public Utility	<input type="checkbox"/>	Manufacturer	<input type="checkbox"/>		
Other	<input type="checkbox"/>				

**BAPCO MEMBERSHIP APPLICATION**

**4. POSITION RESPONSIBILITIES**

PLEASE LIST THE MAIN DUTIES OF YOUR POSITION IN YOUR OWN WORDS:

**5. MEMBERSHIP CATEGORY & FEES (Select One)**

**ACTIVE MEMBER** (Annual fee £40.00)  
 I am employed in a public safety or civil contingencies communication or information system and I am a resident of the British Isles.

**ASSOCIATE MEMBER** (Annual fee £28.00)  
 I am not employed in a public safety or civil contingencies communication or information system and I am a resident of the British Isles.

**CORPORATE MEMBER** (Annual fee £500.00)  
 I am an agency or company wishing to register more than one person as a member of the association.

**INTERNATIONAL MEMBER** (Annual fee £50.00)  
 I am a resident outside the British Isles.

**6. SIGNATURE & DATE**

SIGNATURE: \_\_\_\_\_ DATE: \_\_\_\_\_

TEL: 01522 575642 FAX: 01522 575642  
 BAPCO, PO BOX 214, LINDSAY, LE11 1YF

# BAPCO

BRITISH ASSOCIATION OF PUBLIC SAFETY COMMUNICATIONS OFFICIALS

All members are enrolled as individuals and enjoy privileges dependent upon their category of membership that reflects their current employment status. However, recognising that a public safety agency or a commercial company may wish to register more than one person as a member of the association, facilities do exist for corporate or group Memberships in which individual changes can be made as personnel changes occur.

The categories of membership available, with the annual subscription fee, are as follows:

## 1. Public Safety/Civil Contingencies Employees or Volunteer Emergency Aid Personnel

### Active membership

Individuals employed by a public safety agency, department of central or local government having responsibility for public safety or a company described as responder by the Civil Contingencies Act or retired from such a position and who does not have a conflicting commercial interest, or who is a member of a volunteer emergency aid organisation. (Annual fee £40.00)

### Associate membership

Persons who satisfy the above criteria but who do not want to be an Active Member. (Annual fee £28.00)

### Corporate membership

An agency that wishes to register more than two persons as members may apply for corporate membership. (Further details of corporate membership and annual fees are available on application to the association)

## 2. Persons employed in industry, consultants or who have an interest in communications or information technology within the civil contingencies area.

### Commercial membership

Persons connected with industry providing communications and information technology systems or providing services as consultants in this field. (annual fee £40.00)

### Corporate membership

An organisation that wishes to register more than two persons as members may apply for corporate membership. (further details of corporate membership and annual fees are available on application to the association)

## 3. International Members

The association has a commitment to the global exchange of information, ideas, and experiences and persons involved in managing, using, providing public safety communications and information systems who are resident outside the British Isles are eligible to apply for the following categories of membership.

### International Associate

Annual fee £50.00

### International Corporate

Further details of International Corporate Membership and Annual Fees are available on application to the Association

To find out more about what BAPCO can do for you and your organisation, visit:

[www.bapco.org.uk](http://www.bapco.org.uk)

**Launched in June 1993, BAPCO** (British Association of Public Safety Communications Officials) has grown very fast and is now acknowledged as the association in the British Isles for all professionals in public safety and civil contingencies communications and information systems.

As a not-for-profit organisation, BAPCO is an independent, user led organisation that provides a forum for professionals in the field of public safety and civil contingencies communications and information technology to exchange information, ideas and experiences. In partnership with the industry it maintains regular liaison with manufacturers and other commercial bodies, such as consultants, to monitor developments in technology and future planning. BAPCO is unique in Europe as the only multi-discipline, multi-level association for public safety communications and information systems managers, users, maintainers and providers. Through it's affiliation to the Associated Public Safety Communications Officials (APCO) in the USA, Canada and Australia/New Zealand BAPCO members become an important part of a worldwide network of public safety communications and information technology professionals. Individuals experience, knowledge and expertise combined with that of other members worldwide help to achieve the goal of excellence in public safety/civil contingencies services.

### Be a part of a unique organisation

Membership of BAPCO is open to all persons in the United Kingdom, the Channel Isles, Isle of Man and Ireland who are associated with the provision, maintenance, and use (managers, engineers, programmers, communications operators, end users, suppliers consultants) of civil contingencies communications and information systems. BAPCO members come from every type of public safety and civil contingencies organisations in the British Isles, including:

- Police Service
- Fire and Rescue Services
- Emergency medical services
- Emergency Planning and Management
- Volunteer Emergency Aid Organisations e.g. St John Ambulance, RAYNET, British Red Cross, Mountain Rescue etc
- Military
- HM Coastguard
- HM Customs and Excise
- First and Second line Civil Contingency responders.
- Emergency Breakdown Agencies e.g. AA, RAC, Green Flag
- Local Authorities
- Central Government
- Public Utilities
- Manufacturers
- Technical and repair services
- Engineers
- Consultants

# BAPCO



THE BRITISH ASSOCIATION OF PUBLIC SAFETY COMMUNICATIONS OFFICIALS

## APCO 2011 Annual Conference

To ensure you receive membership rates to the APCO 2011 Annual Conference in Philadelphia, go to [www.apco2011.org](http://www.apco2011.org), click on 'attendee', then 'register now', click 'start', and 'new registration'. At the top of the very first page (titled 'attendee information'), enter the promotion code: BRIT11.

This will enable the system to display member rates for all conference pricing.

You will then continue and a registration confirmation will be emailed directly to you. You will receive a password within this email confirmation, so you can go back and edit your registration at anytime through the attendee service center.

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### Blue Lamp Foundation – please give generously

At this time of the year we generally put out a request from BAPCO to pledge donations to the nominated charity, but this year we have set up a Justgiving page for the selected charity at [www.justgiving.com/BAPCO-event](http://www.justgiving.com/BAPCO-event).

This year's chosen cause is the Blue Lamp Foundation which was set up last year by PC David Rathband. He was severely injured when he was shot by Raoul Moat in July 2010, and while in recovery he realised how members of the emergency services and their families may experience hardship following injury in the line of duty.

The aim is to provide financial help to members of the fire, police and ambulance services criminally injured whilst on duty.



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# Are you making the most out of your digital capabilities?



*Richard Redgrave of Sepura shares with BAPCO Journal his thoughts on a question that is increasingly appropriate for many organisations facing a pressing need to increase operational efficiency.*



*“The business drivers are now coming from the operational side of the public safety world – and that is a big change.”*

*Richard Redgrave, Sepura.*

The public sector’s embrace of TETRA in the UK was – at the time – probably the most ambitious and wide-ranging initiative of its kind in the world. For once, the emergency services and public sector had gone ahead and pipped the private sector to the post, becoming the early adopters of TETRA.

Unfortunately since the dawning of this brave world the emergency services could be argued to have repeatedly underexploited the potential that such technology can actually deliver, with many organisations acting as if all that Airwave was about was merely swapping one set of (low cost) radios for another (better and more secure) set.

The emergency services sector has remained too voice-centric in the TETRA environment – something that is in stark contrast to the commercial and transport sectors (for example), where companies like Sepura are installing automated systems that are expected by their purchasers to be heavily used by the users.

Richard highlights some of the ways that the private sector is using TETRA: ‘Heavier use of point-to-point calling, more status reports, more use of short data applications, more usage of packet data: private sector employees are all interacting with their back office systems, and that is how these businesses are justifying the investment in the technology in the first place.’ So the private sector is not just replicating an old analogue system; it is exploiting the full benefits of a digital system.

Some emergency services have even begun slipping back after a promising start. Sepura’s own research shows that some organisations are not keeping up with their Airwave training, so that as staff change over time, people are reverting to poor practices where radio discipline is not maintained and messages are not kept short, precise and clear. If users are unable to appreciate that digital radio is different and that it should be used differently, then it begs

the question of whether the digital potential will be exploited. ‘There are huge opportunities in the public sector to achieving real leverage from control room back office systems being both accessible and automated for field users,’ says Richard.

Things could be changing however, in part as a result of changes and cuts in budgets. Having to cut back-office staffing and putting efficiency drives at the hands of chief

## TETRA AT BMW – RESULT: SEAMLESS MAINTENANCE PROCESSES

The German car manufacturer’s biggest plant (Dingolfing) replaced its analogue radio systems with a single digital communication system which also replaced and improved the automatic fault notification system on its production line.

Today, whenever a fault occurs, the maintenance team receives an automatic message SDS on their TETRA terminals directly from the server. The predefined text has to be accepted manually by a relevant team member, and if not, the system resends the SDS up to three times. No acceptance escalates the process to a supervisor who then makes a final decision on job allocation. Sepura provided an SDA (short data application) which reduced the number of interactions necessary for the acceptance/rejection of maintenance jobs. In the event of server failure, a backup system can deliver the messages seamlessly.

## AIRPORTS: PROCESSES AND SAFETY

- **Dynamic talk group allocation:** at Paris-Charles de Gaulle airport Air France crews are assigned to a new talk group for each incoming flight. Only those team members assigned to the talk group can communicate with each other, so there are no interference and delays in the communications. Members send status messages from their radios to update the central computer system as they've completed their tasks, such as cleaning, unloading luggage and refuelling. The computer monitors progress and identifies any delays, enabling flight management to send extra staff if required. Once the plane has taken off, the talk group is automatically disbanded. Air France reports a 50% reduction in the number of people needed to prepare a plane since implementing the solution.
- **Worker safety:** in addition to GPS positioning, a dedicated emergency button on the radios makes it easy to request



assistance – pressing the button automatically sets up a priority voice call to alert the control centre as well as colleagues in the same talk group. Motion-sensing technology in the radios also generates automatic man-down alerts with users' locations. Erroneous man-down alerts can be cancelled by simply tapping the screen.

constables (for instance) means efficiency strategies are being driven by senior ranks. 'The business drivers are now coming from the operational side of the public safety world – and that is a big change.'

TETRA, explains Richard, has for a long time been

regarded by IT departments as part of the 'radio black arts', and thus partitioned in its own bubble. 'Very few departments have looked at the whole solution from the control room and back office support systems, across the Airwave network through to the delivery of the service to



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“What we are still seeing is many of the emergency services using the technology to a very small percentage of its capability.”

Richard Redgrave, Sepura.

the end user on the radio.’

The introduction of an £80m fund for grabs didn’t help either, paradoxically. It resulted in emergency services – understandably perhaps – swapping their focus on TETRA solutions (ie radio applications) and instead looking at the acquisition of yet more battery-driven devices – resulting in a market fragmented by hardware. ‘They could have spent a fraction of that money and probably delivered much bigger benefits by using the investments they already had in their Airwave equipment’

To ascertain how TETRA is perceived in the emergency services, you just need to ask a user what the benefits of moving to TETRA have been. ‘A typical answer would be along the lines of; “better coverage, clearer communications, more secure communications”. And they stop there, because end users are not actually using the technology to drive efficiencies through the operations.’

Useful applications are a primary driving force behind the popularity of next generation mobile phones such as the ubiquitous iPhone, and the same could apply to TETRA apps. Durham Constabulary, for example, has been helped by Sepura to implement an app that allows TETRA radios to access the central server. Each officer now has a web browser with its own web page. Missing person notices are texted via TETRA to officers who can then visit their web browser page and download a small compressed jpg. ‘It is efficient because the alternative is to push that image to every officer, and that obviously incurs a cost. It is more efficient to alert them with a short data message and then those officers that actually need it can download the image’

Community support officers do not need a separate GSM number either, points out Richard, when calls from members of the public can be routed through to their Airwave radios.

To demonstrate an example of how TETRA technology can differ from analogue radios, Richard points at the radio software that Sepura has developed in the form of short data applications. Here, Sepura analyses a simple business process that needs to be carried out – eg collecting some simple information on a form – and translates that into an application on the radio. ‘In the past it might have been done by filling in a form in triplicate or on a notebook, now it can be done on the radio, and that data goes across the network and into the back office system’. In police terms, this might be a stop-and-search application, which includes automatic GPS and time stamping.

Let’s not forget how sophisticated the latest handsets are. Sepura’s solutions now come with 1 gigabyte of memory for software, as well as 200,000 customisable options and parameters. This is good news for end users in that it opens up their TETRA radios for a whole host of potential applications – on the other hand it also demands that end users and developers work hand-in-hand to make the best out of the technology. What is clear to Richard, however, is that too much has been invested into TETRA to let it drift away. ‘What we are still seeing is many of the emergency services using the technology to a very small percentage of its capability, and very few of them have thought about it radically enough to question how to fully take advantage of the technology to drive efficiencies in operations.’

## SOUTH AFRICA WORLD CUP: TETRA HELPED TO MONITOR AND RESPOND



During the South Africa World Cup the responsible authorities used TETRA to

monitor events as they unfolded and respond instantly to emergency scenarios across 37 venues. Sepura’s Short Data Application (SDA) enabled users at multiple venues to simultaneously submit standardised status updates and incident reports quickly and easily to the Johannesburg Joint Command Centre. This minimised voice traffic on the TETRA network and freed up channels for high priority calls. Every communication was automatically captured and logged for analysis. Users sending messages to the JCC could choose from a series of customised short data messages grouped into medical, security, fire and logistics events (including status updates on venue capacity) – designed in anticipation of the situations that could occur. Messages were also categorised into severity of type of incident, so radio

dispatchers could easily prioritise actions. Each message automatically identified the venue and the user. The SDA also enabled an automatic record of every incident and a report to be generated, which meant insights could be gained at a later date into how incidents were managed, and if correct procedures had been adhered to. The short data messaging meant operators did not have to deal with user accents or intrusive background noise (eg vuvuzelas!).



# Hampshire regains control of the radio waves

*Regaining control of Airwave communications can help balance the budget, as Hampshire Constabulary is convincingly proving.*

**A**ndy Day is Airwave Manager, a role that was created in Hampshire specifically to oversee the business and service management for Airwave – a role that previously sat within the IT department.

That such a role is necessary was one of the outcomes of Hampshire's Airwave Assisted Implementation Project, which had been overseen by Chief Inspector Cleaven Faulkner.

The project came to being once Hampshire had realised that it wasn't fully exploiting the capabilities of Airwave, and that its communications costs could be lowered significantly.

Having gained some sponsorship from the National Police Improvement Agency (NPIA), Hampshire invited Airwave to help via a consultation process.

The main problem, remembers Andy, revolved around the fact that Airwave was still regarded as a straight like-for-like swap for the analogue radios, and used accordingly.

'The occupancy on talk groups was 65-75% at the busiest times, with much of it coming from a lack of radio discipline and the perceived need for all updates to be completed over the air.'

A trial using a dedicated talk group for PNC (police national computer) checks worked well, reducing the occupancy by some margin. However, it was quickly realised that a dedicated PNC talk group could not be the whole solution, as the talk time it released on other channels was again being filled with needless voice communications. 'It needs to be supplemented with other practices such as Airwave Speak, and we are scoping to

reactivate this talk group as we move forward,' says Andy. 'So we had to look at other ways of communicating, such as using text messaging for status updates. Rather than have an officer getting to the scene of an incident and radioing: 'I'm on scene,'" we enabled him to press a button that would show the same update, linking in with the command and control system. Now they don't have to speak with us but we can see where they are and what time they got there.'

Not all the technical solutions have been a complete success and some work is still needed, admits Andy. The automatic person location feature on the handsets, for example, hasn't worked as well as the similar feature on cars, to the extent that pressing the emergency button could potentially wrongly locate an officer on the map in the control room perhaps half a mile away from where he really was. 'We've turned it off whilst we work on it. I would personally spend that money on being able to see the officers, but if it is not working then there is little point. It could be more dangerous for the officer.'

Turning that application off is saving the force £8-10K for the year in data charges, estimates Andy: 'We are utilising that money to work on improvements alongside our partners, to ensure it works properly all the time.'

Where the force is saving a large part of an estimated £60,000 per year is in its Airwave call charges. In a very simplistic way, the charging structure for Airwave is not dissimilar to ordinary mobile phone pay structures, with a number of minutes 'free' as part of a contract. The highest



charges correspond to talk time outside the 'free minutes', during the busiest hours.

'We went out and spoke to officers and explained to them in detail the importance of using their radios correctly – including simple things like the how they can clear their emergency button, or what to do if they go to a neighbouring county and how that will impact on costs.'

Other cost-cutting measures have revolved around the innovative introduction of software such as IMAGIN (initiated by Northern Constabulary, and which is now being deployed in Hampshire as well); IDM; and Call Backs.

IMAGIN is an application that gives police officers the ability to access images on their Motorola MTH800

terminals (Hampshire's chosen Airwave portable device) whilst they are on the street, from any data source in the constabulary.

Although the Airwave Assisted Implementation Project ended some time ago (Autumn 2009), getting access to officers during training days and talking about their radios is something that is happening still today. 'We explain how it all works without going into too much detail, and when they understand it, they understand why it is important not to sit on a talk group all day.'

Andy concludes by pointing out that Hampshire's Airwave savings have been consolidated this year, and that he expects to maintain the reduced charge fees in the future.

# Apps are the future for TETRA

*Gert Jan Wolf, founder of the world's first independent Internet portal for TETRA communications professionals, looks at where we are today as regards TETRA applications.*



"We will see TETRA increasingly integrated with other radio networks and applications via IP technology."

*Gert Jan Wolf, TETRA-applications.*

**T**oday the world of TETRA applications is moving fast. TETRA has become one of the most purchased communication technologies in the mission-critical work environment, and the technology has made an enormous increase in its capabilities over the last few years. Almost all manufacturers of TETRA systems have upgraded and fine-tuned their networks in order to be able to implement more and more TETRA applications. Many of those networks are now able to intake data applications that can be used by their end users using TETRA 1 or in some cases TETRA 2 (TEDS). For the near future we predict companies focussing on developing a combination of TETRA and LTE (4G), which makes the use of applications up to real live video even more interesting.

The last few years have witnessed an enormous burst in companies building applications that can run over TETRA networks, and one of the biggest hurdles was ensuring that these applications could run over a network with limited bandwidth such as the first generation TETRA networks. In many cases the application developers have succeeded.

Although simple applications such as picture transfer (from dispatcher to radio user) have been around for some four years, since their introduction during the TETRA World Congress, the uptake of these applications has been slow and they are rarely seen in the field.

The main reason for this has been that many public safety organisations (one of the first TETRA user groups) initially implemented these networks to replace voice communications only. At the time, analogue radio equipment was in use and data applications were not implemented widely. Today the awareness of the capability of the network is very much alive and this is resulting in an increased interest from all user groups in data applications.

## Culture change

It has taken many users of TETRA radios a long time to get used to the new way of communicating. In most cases the new TETRA radios consisted of 80% software and 20% hardware, compared to the 20% software and 80% hardware of analogue radios.

A slow increase in both new applications and their uptake is being experienced. Many TETRA networks (especially in the public safety) have been operational for some years, and end users now are getting used to working with their new radios. The fact that many other verticals (such as public transport, industry and utilities) have discovered TETRA, has also been an influencing factor.

## The suppliers

In some cases TETRA radio and infrastructure manufacturers are developing 'TETRA applications partner programs' to differentiate themselves, requiring application development companies to apply to join. This has resulted in extra value for both parties, as well as the final end user.

Another group is formed by small development companies, many with great solutions that are yet to hit the market due to a lack of sales and marketing experience.

Currently there are about about 212 companies offering application solutions that can be used on TETRA networks – and the number is still growing. These companies offer solutions from simple status updates to applications that are able to work with video feeds.

Applications that streamline voice and data via (mostly) software include:

- ANPR via TETRA networks
- Billing an end user using the TETRA network
- Data messaging

- Data recording
- Database solutions
- Dispatching solutions
- Positioning solutions
- Lone worker solutions
- Mobile workforce solutions
- Network solutions (eg connectivity and alarm solutions)
- Network performance solutions
- Network power management and analysis solutions
- Radio management solutions
- Telemetry solutions.

### Applications in law enforcement, utilities, transport ... and beyond

Effective workforce management as well as applications that are built to support the police officer in the field are becoming more and more accepted.

Implementing these applications is often an effective way of reducing costs within a large organisation, and there are several TETRA applications development companies specialised in this field. Applications such as 'data query client' (eg driver and vehicle database queries) and 'violation ticketing' have already been implemented widely with success reported from within several police forces. These applications have enabled police organisations to deploy more officers in the field as well as enabled those same officers to carry out their desk jobs on the streets.

An interesting application outside the public safety arena is being used in Korea. KEPCO (Korea Electric Power Corporation) had been using an analogue communications system for voice and data – however the data system suffered from low reliability and suffered from many gaps in coverage.

The new TETRA system allows KEPCO to automate and manage its power grid intelligently even in remote areas, where the cost of deploying landlines would be prohibitive.

The systems currently supports a range of applications, including:

- Remote metering
- Direct load control systems
- Power distribution automation
- Monitoring wind speed on transmission lines
- Undersea power cable monitoring.

The Finnish Police is using a tracking solution for officers in the field. It utilises a proven solution for vehicle location management that provides seamless interaction between field units and the control room. Patrols can see their own locations as well as the locations of other units in the group; and access address search/database query functions. Load history can be viewed and analysed to plan capacity, basing future investment on real data.

Another interesting application is being used by London Underground. This solution is based on RFID and it identifies and positions rolling stock. RFID readers are mounted underneath the train to identify ID tags mounted on sleepers. It also enables the radio system to



*The roll-out of TETRA in the UK replaced analogue radios that were 20% software and 80% hardware, with new TETRA radios (such as the Motorola MTP850S pictured here) that consisted of 80% software and 20% hardware.*

automatically change talk groups when a train comes into a new railway zone.

Besides TETRA applications for operational deployment, more and more applications for the management of the TETRA radio fleets have been designed.

Police forces sometimes manage thousands of radios, and upgrading these radios to new software versions is costly and takes a lot of time.

Over the last three years the biggest TETRA radio manufacturers have launched remote programming tools to enable end users to upgrade their radios directly after their shift – something which has brought tangible financial benefits to police forces in many countries.

### The future

We will see TETRA increasingly integrated with other radio networks and applications via real IP technology. For public safety officers, the challenge will be understanding the impact of these new data applications on network usage and costs.

Data analysis tools that enable operators to carry out analysis will become significant in enabling users to fine-tune the use of their data service.

Purchasing the TETRA network is one thing; fine-tuning it to get the maximum out of it is another. Nevertheless current end users are being educated in how to streamline their activities and implementing more and more applications.

In conclusion, the future for the TETRA applications market looks buoyant and bright.



# Finding a vision for tomorrow

*The Government's decision to cancel the FiReControl project to create a national network of nine control rooms marks a change in focus for the prime contractor, Cassidian. Two former fire chiefs Dennis Davis and Terry Standing who now work with Cassidian discuss the implications of that decision and their vision for the way forward.*



**"It is down to chief fire officers to network with other brigades and to create resilience but in a different way to the vision laid out in FiReControl."**

**Terry Standing,**  
former Chief Fire Officer,  
Gloucestershire FRS.

**T**he FiReControl project was borne out of the findings of an independent review in December 2003 by Mott MacDonald, which found that the current 46 individual Fire and Rescue Services in England were not as well placed as they could be to maintain the country's resilience whilst releasing significant cost savings.

As a result, Communities and Local Government came up with a proposal to consolidate the 46 existing control rooms across England into nine regional control centres.

Despite the project's ambitious aims and objectives, it was decided by the new coalition government to cancel the project in December 2010 – leaving the fire and rescue service to find a new way forward based upon local needs.

Dennis Davis is an independent fire adviser renowned in the fire industry who also consults for Cassidian. He acknowledges that while the FiReControl project was not delivered – the improvement in technology and the broad rationale behind the project is still sound.

It is his view that companies like Cassidian still have a role to play in working with local FRSs, providing them with the integrated solutions needed to enable them to deal with major disasters – as well as allow them to manage their day-to-day affairs in an efficient and co-ordinated way.

'We've learnt a great deal from FiReControl and it makes sense to use that knowledge to create fresh opportunities for the fire service not just in England but in international markets,' he explained. 'What we need to remember is that the proposed technical solution itself didn't fail – the solution just couldn't be delivered to the required time schedule. Although the project has been stopped that doesn't mean to say the software and engineering effort, the convergence work, the work put in by the FRS' and other partners to deliver a working system has to be wasted

effort.' The overall resilience programme of which FiReControl was a part has already led to FRS' gaining new technology including mobile data terminals through allied but separate projects such as Airwave, which have transformed the way the FRS communicates.

Dennis stresses that the knowledge and cutting edge technology relating to the integration and management of data that Cassidian has developed in this time is invaluable and could now be used to help individual FRSs create their vision of an effective and resilient service in the years ahead.

Having spent more than 45 years in the fire service, Dennis is a passionate advocate of the need to reconcile localism with the wider aspirations of protecting the nation at a time when both natural and man-made disasters are increasing in frequency and complexity and posing a real risk to critical national infrastructure. He believes that the way forward post-FiReControl is for experienced technology providers to work directly in partnership with the FRSs to create an effective integrated emergency management system that not only facilitates the day-to-day routine of the FRS but accommodates interoperability. 'What's going on at the moment is that we are applying the knowledge learnt to look at how we create an integrated information platform that offers resilience so we can meet those threats. The platform must also provide the sort of localism in prevention and community protection that is professionally and politically required.

'One of the big strengths of the Cassidian approach is that the solution meets these key requirements: localism and resilience. These issues don't just apply to the fire and rescue service, but for management in fast moving emergency situations per se.'

Working alongside Dennis in Cassidian is Terry Standing who is also a former chief fire officer who has more than 30 years' experience of the job. His career highlight was masterminding the emergency response to the Gloucestershire flooding in July 1997 – so he knows only too well the importance of being able to respond to major incidents in an effective way.

Terry agrees with Dennis that while FiReControl as a project will never be realised, the expertise and capability built up though the project coupled with the need to create a resilient fire and rescue service are valuable lessons that can be taken forward. 'One of the definite advantages of FiReControl was the national infrastructure that was going to be put in place,' said Terry. 'What this would have meant was that if Dennis was working as Chief Fire Officer in Cheshire and I was working in Gloucestershire and I was experiencing high demand, then my colleagues in Cheshire could have helped me out by mobilising resources and taking a lot of the weight off me.' He adds that this is particularly important when dealing with natural and man-made disasters such as flooding and terrorist attacks.

'Any FRS could be hit by these and having that level of resilience would have been extremely beneficial to our critical national infrastructure.'

Both are in agreement that even though the effort to build

resilience at a national level as part of FiReControl no longer exists – it can still be achieved and that individual chief officers are the key to this.

They predict that chiefs will look to greater collaboration not just with neighbouring areas but also with like-minded FRSs with similar problems and experiences in order to strengthen resilience. 'We can still end up with a very safe country as nobody knows better than chief officers what they need to do to protect their areas,' said Terry.

'It is down to chief fire officers to network with other brigades and to create resilience but in a different way to the vision laid out in FiReControl!'

### Interoperability

Terry and Dennis predict that the collaboration will go beyond other brigades and also include other local organisations such as councils, social services and other blue light services including police.

The fire and rescue service and other agencies have been talking for some time about the need for greater interoperability and both Dennis and Terry believe that considerable progress could be made in the next few years and that solutions like that developed by Cassidian – now called EMIC (emergency management information capability) will play a vital role in helping individual agencies



"I can account for all our handsets, in seconds – know where they are and who's taken one, at the click of a mouse."

Bill Upcott, Thames Valley Police



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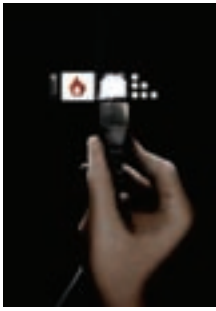
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*The Coalition Government pulled the plug on FiReControl in December 2010 – leaving the fire and rescue service to find a new way forward based upon local needs.*

collate and manage data more efficiently and effectively.

Central to the EMIC offering is the ability to take complex data and process it so that it can be used to inform activity in a more co-ordinated and strategic way.

This would include data fusion and spatial capabilities that link assets and resources to enable oversight and optimisation of response to meet routine demands and protect vulnerable individuals. This builds upon current and developing partnerships where agencies which need to share data work together to protect the people in preventative and response programmes.

### **Routine**

With this in mind, Dennis points out that while FiReControl was concerned with national resilience the majority of time and effort spent by the FRS is on the day-to-day business of effective prevention.

The Cassidian EMIC approach will ensure through effective data management that the day-to-day business of the modern day fire and rescue services is underpinned with reliable and useable information.

Dennis describes this vision of establishing an 'effective local crisis management system' as one where intelligent management of data is at the heart of all activities. 'We need to remember that most of the technology products needed to achieve this aim are already out there. What was missing and forms the nucleus of the Cassidian offering is the ability to integrate a range of products within one end-to-end solution.'

Recent cuts in public sector spending have put the squeeze on the finances of organisations such as the fire and rescue service and both Terry and Dennis acknowledge that this will be a challenge as every penny now counts even more. Again, they argue more imaginative

collaborations with other agencies and areas could provide an affordable and workable solution.

Even though Terry was supportive of the FiReControl 'vision' he believes the new environment presents unique opportunities for fire and rescue services to shape their own vision rather than have it imposed by central Government. 'This is a really exciting opportunity because we are in a situation where the user is really in control of defining the need. People are now starting to reconfigure themselves and realise that they have the potential to really bring about positive change,' Terry continued.

'Our job at Cassidian is to sit down with chiefs and talk about ways in which we can play a part in this. Chiefs can really look at how they can better manage processes and plan resources on a daily basis. They are already required to produce an integrated risk management plan outlining how they will do this and hopefully our EMIC offering will help them achieve this.'

One of the main aspects about the Cassidian EMIC capability is that each aspect of the technology can be purchased separately and tailored to the individual needs of a brigade. Cassidian has also learnt the important lesson of working closely in a consultancy and advisory capacity with the FRS. Before commissioning any formal procurement process the exact requirements needed to deliver the clients' desired outcome needs to be established. This is a critical step given the bewildering availability of commercial off the shelf products from what is quite a complex market place. 'Above all, EMIC is unlike any other offering out there in that it will enable agencies to integrate databases, allow them to assess where resources are needed at any one time and allow them to plan processes and to learn and refine. This in turn should allow them to become more efficient and offer a better service that meets the demands of the community,' explained Terry. 'The thing that used to get me out of bed in the morning was actually knowing I could prevent a fire. The really important aspect about more efficient data management powered by cutting edge technology for me is that it can help prevent that red door from ever opening in the first place.'

'We want to be in there using our expertise and knowledge of complex systems and processes to help FRS' bring about real change to the way they do their business,' added Dennis. 'We are not selling a box or a CAD – we are selling an end-to-end solution, and behind that a technology platform that offers an integrated system of data. There is no question that we are one of the few companies in the world that are able to achieve that. We have to accept that FiReControl as a project did not deliver all the expected benefits, now Cassidian still have a real role to play in helping FRSs bring about lasting and positive change to the way they and other local organisations manage and co-ordinate their businesses,' he continued. 'It's going to be a challenge and we are ready. Cassidian's track record working across the world with governments and other organisations demonstrates a commitment to succeed.'

### **WHAT IS EMIC?**

Emergency management and information capabilities is, as its name suggests, more than just operational response working off a CAD system. EMIC offers a framework that facilitates an elemental integration of key components and data to offer an end-to-end service based on the needs of an emergency service or other organisation that requires resilience and business continuity, according to Cassidian.

EMIC offers the infrastructure to allow data to be managed based on the requirements of an individual service. Cassidian is offering a prioritised mobilisation suite that builds a capability to assist operations while being considerate of future interoperability and other business priorities. The architectural framework of the system ensures flexibility, resilience and scalability.

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# Beyond FiReControl



Nick Chorley,  
Intergraph.

*FiReControl was only the starting point, says Intergraph consultant Nick Chorley.*

Set up in response to a series of large-scale UK emergencies during the early 2000s, FiReControl was driven by the imperative to respond efficiently and nationally to natural disasters or terrorist attacks. At the same time the 'national project, delivered regionally' was a response to a core fire service control room inefficiency: namely that: 'the processes for dealing with overflowed calls are often manually intensive, which gives rise to problems at times of extreme demand when control rooms are under pressure.' \*

The Government's 'what next?' (DCLG) FiReControl project consultation document seeks feedback on fire and rescue authorities' priorities for the allocation of any additional funding which may be available from central government, and seeks to establish 'how we can make best use of [the project's legacy] assets.' \*

Mobilising technology has progressed since the project's inception, which means that it is also better equipped to handle the demands of the future (such as next-generation 999) as well as those of the present. Significantly, the FiReControl command and control 'I/CAD' mobilising system, developed by Intergraph (and specifically referred to as an asset for consideration on page 45 of the DCLG consultation document) has a technology roadmap and forward momentum of its own. It has therefore already been tried and tested for its collaborative call handling/mobilising efficiency, regionally, and for its resilience in supporting national response to major disasters [see case studies below and opposite]. In that sense it is



very much a live asset.

I/CAD is already used by over 2,500 public safety agencies worldwide; they include many fire services and are all members of the same user group that contributes to the product road map. The system's multi-tiered technology stack includes a foundation I/CAD command and control engine (or hub), overlaid with UK-specific mobilising modules developed for the UK fire service use. It has built-in scalability, so it can be used by both smaller and larger fire services, as well as an interoperability platform that allows data sharing between agencies.

Looking at possible near-future fire and rescue service scenarios, the I/CAD mobilising technology could be deployed by larger fire services to create a single and virtual, region-wide IT environment where one CAD system serves all, balancing resources across control room peaks and troughs. The same system could also be deployed to smaller brigades in its foundation form; or as a 'federated' grouping of smaller, individual systems to support multiple fire services that collaborate, again sharing resources to cut costs and provide mutual system backup, call-handling and resource mobilising. In the case of regional deployment (on whatever basis) the intelligence of the system would act as a powerful adjunct to local knowledge.

Given this level of flexibility the varying needs of UK fire and rescue services could be met, efficiently, while also ensuring the cost-effective continuity of a core technology asset.

\* Source: *The Future of Fire and Rescue Control Services in England: Consultation*. CLG – January 2011.

## REGIONAL CONTROL ROOMS AND INTERAGENCY COLLABORATION: AMBULANCES

In 2006 the ambulance service organised into 12 regional ambulance Trusts (FiReControl planned nine regional control rooms, replacing the current 46). Those Trusts are now completing the successful roll-out of their regional control room technology. South Central Ambulance Service is a case in point: its virtual command and control environment is powered by Intergraph's I/CAD – a scalable system that allows it to share demand peaks across the three emergency operations centres that service SCAS' 3,500 square-mile region. Other Trusts including East of England and Great Western are following a similar pattern. Interestingly, the ambulance service may not stop here: Trusts are already discussing a future where they provide mutual back-up for control room disaster recovery, reducing infrastructure and cost.

## NATIONAL RESPONSE TO ENVIRONMENTAL DISASTERS AND TERRORIST ATTACKS

The New Zealand Fire Service (NZFS) has 440 stations and some 8,700 firefighters responding to around 73,000 calls a year. In the last six months Christchurch (New Zealand's second largest city) has been struck by two significant earthquakes. These were the largest incidents that NZFS had responded to in 20 years: after the first quake fire crews officially dealt with over 1,100 incidents in the first four days.

NZFS has nationwide jurisdiction. Its command and control system is also used by the nation's police, and its data linked to its ambulance service, allowing event information to be shared between the three agencies, in realtime. The single national system – which uses Intergraph's I/CAD software – also complies with local requirements.

On both occasions the system (situated in Christchurch) held up well, enabling agencies to respond swiftly and decisively. 'Interoperability of the I/CAD system ensured that all responding agencies could see a common operating picture,' said NZFS assistant national commander and NZFS communication centres director Ian Pickard.

'Our command structure, support systems, equipment, training, professionalism, teamwork and desire to help all meshed together to provide the public with a first-class response.'



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# Silver Command strike gold with COP

*The Defence Science Technology Laboratory commissioned Primetech to simulate an Ambulance Silver Command unit for the Radiance Integrated System Demonstration at the Home Office Scientific Development Branch Exhibition in Farnborough last month. BAPCO Journal finds out more.*

**T**he aim of the Radiance Integrated Science Demonstration (RISD) was to facilitate the improvement of interoperability across the category 1 and 2 responder community and the provision of enhanced situational awareness to enable commanders' to make timely and effective decisions. Additionally, it examined the key interface issues and compatibility between the different COTS solutions when they are 'stitched' together to develop an E2E system of systems.

The task for Primetech – a provider of wireless and satellite communications solutions – was to provide a network which would deliver a complete operational picture (COP) using imagery, video, documents and voice; to implement a multi agency interactive whiteboard facility across the 'ambulance' network; and to and from the gold network.

Primetech provided the control unit; the Wi-Fi network for the ambulance sector (interoperated via 3G); and a simulated satellite link to the gold command HQ – whilst co-ordinating the other technologies working in this area.

ImageBase Technology supplied software called

Photophone XT, which is a unique encrypted, interactive image and data communications application that allows the dynamic capture, transmission and receipt of multimedia intelligence between bronze, silver and gold commands.

Paramedics and first-on-scene ambulance officers can use the camera on their portable device such as a BlackBerry smartphone, Android device or Windows Mobile PDA to capture an image or video, adding voice over or text over notes if required. These images and files can then be transmitted to the control room and to the rest of the team, who may be equipped with rugged tablets, laptops and desktop PCs.

The Photophone system is a bi-directional tool which means that additional data (eg floorplans of buildings, mapping or database information about treatment of a certain injury) can be captured and transmitted from gold or silver commands and sent down the line to the first responders. The obvious advantages are the ability to give video and image information to awaiting medical specialists so they are able to provide specialist advice to ambulance personnel at the scene and more accurately assess incoming patients.

Additionally, images can be annotated so that pointers appear on the image in real time; screens from other applications can be captured and transmitted as can other files such as manual and technical diagrams. Images are automatically tagged with GPS coordinates allowing users to instantly view where the image was taken on a mapping system (eg Google Maps). Photophone XT's in-built situational awareness module also provides users with a view of ambulance personnel positioning on the same map.

Primetech also utilised EARL (Emergency Area Radio Link), a communication system developed by ARL Communications. This interconnects legacy radio systems from across the UK and abroad to produce a resilient communication system over any bearer. By using quickly deployable, portable gateways, the system can link to the internet via satellite or 3G.

For the purpose of this simulation, ARL provided a video wall on the gold network that displays all the imagery and information from all of the commands using 'EARL Commander', a new variant developed as a result of its involvement with Radiance. EARL Commander has a logging facility that allows decisions and information to be seen by commanders at all levels, as well as providing a

*For the exercise, Primetech joined forces with Roke Manor Research and used 'Tactical Connect', a small-form 3G system combined basestation and standalone core network, which expanded the range of coverage up to 40 km.*



low bit rate video conferencing capability from bronze commanders using their Blackberry radios, for example, through the silver commanders to the gold level – along the lines of Skype, but fully secure.

The advantage of such a system is that voluntary sector and other voluntary ambulance providers using different UHF and VHF radio networks are able to talk to each other and to specialists who are using computers (VoIP), and vice versa – eg a specialist doctor in Germany could talk via his PC to a first aid officer in a mountain rescue team in the Lake District using his radio. Alternatively, a gold or silver commander could send messages to a range of personnel irrespective of their communication method from one PC.

Whilst most mobile Wi-Fi networks have a range of 1 to 5 km, there are times when a wider level of coverage is needed. To facilitate this, Primetech joined forces with Roke Manor Research for this exercise and used Tactical Connect, a small form 3G system (combined base station and standalone core network) which expands the range of coverage up to 40km, whilst allowing data rates of up to 7.2 Mb/s to be achieved at speeds of 120 Km/h.

Should paramedics and ambulance staff using Wi-Fi-enabled devices wander outside of normal Wi-Fi range, the 3G acts as a bearer, picking up all data and video



*Tactical Connect delivered voice communications and live video streaming from the internet via the Primetech satellite broadband link.*

transmissions. Tactical Connect also delivers voice communications and live video streaming from the internet via the Primetech satellite broadband link. Aside from the advantages of being able to deploy rapidly, it has the added advantage of reliability and interoperability through the use of proven open cellular standards.

The simulation aimed to determine how effectively the command structure enables the flow of critical information to and from different teams in a complex, multi agency scenario. The fact that most of the systems and equipment on show were from existing COTS products, demonstrated how adaptable and interoperable they were, and how easily they could be integrated into existing ambulance and paramedic systems.

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# A private and public affair:



*In October 2010 Cleveland Police began outsourcing its control room, criminal justice and back-office functions to a third party. The partnership between Steria and the Cleveland Police Authority is predicted to deliver £50 million guaranteed savings to Cleveland, through the delivery of shared business services. Gavin Chapman, Chief Operating Officer, Steria, spoke with BAPCO Journal Editor Jose Maria Sanchez de Muniain about what the new partnership might mean in the future for the rest of the UK's police forces.*

## **What are the principles behind this partnership?**

Police forces are experts in policing and community engagement, while we believe our expertise is in transformational business change – and of course we have the capability and scale in those areas.

## **How are the £50m in savings being delivered?**

Access to skills and capability. For example a lot of people concentrate on delivering for right now, and don't have the money to invest in transformation. As a commercial partner we are able to invest in upfront programmes and reduce the risk for the client. From our perspective we have breadth and depth in terms of transformational capability, and we can gauge risk

very well. We are able to place the right people into the teams that will drive the transformational models.

## **For example?**

We've introduced a program called CUPID, which enables police on the beat to have access to back-office systems from a mobile device. They can question someone and search on databases without having to tie up the operator, as well as fill in a number of forms on their handsets. We've put a number of similar processes in place, and they result in savings that are actually above the cashable savings.

For us it's about freeing up police officers to concentrate on their work. It is about reducing bureaucracy, putting in a lot of electronic processes

# are partnerships the future?

and workflows. Quite often an officers' work is administration-focussed – what we are doing is making the administrative work officer-centric.

## How does the partnership work in practice?

Today we are occupying the same building as Cleveland Police, running a number of business-as-usual programmes such as supporting HR processes and supporting existing ICT processes. We are also supporting the control room on site.

However, one of the pressing problems that Cleveland has is that it is short on space, so they want us to move some people to a different building. Some of the HR and Finance personnel will therefore be moving offsite to a brand new facility three miles away. This will actually bring these teams closer together, as in Cleveland Police's HQ the personnel were dotted around in different rooms across the building.

## How does the new personnel structure work?

The teams comprise a mixture of people from Cleveland Police who have transferred over, as well as existing Steria employees.

What we are doing is bringing in the transformational aspect into those teams by documenting everything that is business-as-usual, and ensuring everyone is aware of the journey between what they have today and what they need to get to tomorrow. And we'll bring that transformation to HR through these joint teams.

In terms of the control room, again they are a mixed team. The majority of the people in what we would call the delivery execution side of the control room are Steria, and the people making the policing decisions remain on the police side. It is a very integrated team and when we take visitors round it is difficult to tell who is part of Steria and who is part of Cleveland Police.

There are career benefits for personnel who have moved to Steria. Take IT professionals for example, who may feel that by being tied to a particular department they have limited career progression – whether it be in the commercial or public sector. With Steria they are in a larger pool that gives them a lot more career opportunities, including the opportunity of working with the latest technology or working on a portfolio of different projects.

## What have been the main hurdles in implementing the transformation?

Actually the force itself I think would say that the transformation is going better than anticipated. We instigated a number of new programmes and it was interesting because of course when you start a process like this there is no milestone. We put in a caller satisfaction\* system which hadn't existed before. And in terms of ICT, we do have SOAs (single outcome agreements) which I'm pleased to say we have improved significantly on. Cleveland is already in the top three in the UK from a quality perspective, which is a double-edged sword as it means delivering continuous improvement on an already good standard.

## What do organisations need to think about if considering outsourcing?

There are many ways of partnering, depending on your business and cultural need. Each force is unique in its state of evolution and where they get their funding; how mature their systems are; how efficient their processes; and how much they use electronic processes. To achieve the transformation process people can either choose the Cleveland model – where we take care of all ICT, HR and control room – or they can opt for taking pieces of the model. We are very flexible and we are not saying that there is only one model or that everything has to be outsourced.

## Do you think Steria will be working in the same way with other forces in the UK over the next 20 years?

Yes absolutely and we are working hard with forces on creating service models. We would like to create the same for the police market, using the Cleveland model to create a partnership model to ensure we can leverage the skills and transformational benefits – and not in 20 years, but over the next year.

We would argue that we already have one of the most successful true joint ventures in the form of providing shared services to over 40% of NHS Trusts, again with guaranteed savings. We are also delivering additional savings to Government through a dividend.

*\*The call-back system asked members of the public about the quality of service they received. 98.8% responded either 'satisfied', 'very satisfied,' or 'highly satisfied' with the service received.*



## The beginning of the digital journey

*Jose Sanchez de Muniain finds out about the digital journey that lies ahead for most of the UK's police forces now that the days of the cassette tape are numbered.*

**"Many forces have networks that are already under strain and which would fall over straightaway if CCTV feed was added."**

► *Graham Dickinson, Damovo.*

**T**he NPIA recently announced that it had negotiated a new national arrangement with suppliers to help forces switch from using outdated audio cassettes to digital technology to record and store police interviews.

The Digital Interviewing Framework Arrangement has been signed with three pre-approved suppliers – Capita Secure Information Systems, Damovo UK and Ultra Electronics AudioSoft – and it will allow forces across the UK to buy the latest networked digital technology to modernise their interview process at a reduced cost.

It is estimated over two million interviews are carried out by the police service each year. While investigative interviews are traditionally carried out using audio cassette recording methods, most forces are planning to use more up-to-date digital recording and storage facilities which will replace these.

Graham Dickinson, an ex-police superintendent with Surrey Police and the NPIA (and today Damovo's Business Development Manager), sets the scene as to why a digital solution has been desperately needed by the police for a number of years: 'There are many places where evidence is captured on audio or video and the interview room is the classic location where suspects are interviewed. The suspect is booked in, and the evidence obtained by questioning is captured on tapes – and that is where the problems start. Firstly, as the tapes have to be stored and catalogued the result is a huge warehouse filled with tapes, each one with

a unique reference number. These tapes are then often shuttled around between storage areas, and then when they get to a long term storage area, they have to be kept within certain temperature parameters because otherwise they degrade over time.'

The process is antiquated, costly, and inefficient. It also becomes 'muddled' when media other than cassette tapes are involved, such as CD, DVD, VHS cassette and media captured by officers wearing body-worn cameras, or CCTV in cars. 'When I was serving and talking to chiefs about their situation, they were saying how there was clearly a problem because whilst the system for custody tapes was pretty much closed down in terms of security, it was costly and inefficient and there wasn't such a security system in place for all these other bits of audio and video captured on say SD cards. The question was – and still is – where does all this evidence go? In many cases nobody knows for sure.'

This is in stark contrast to other parts of the policing process – such as contact centres – where the jump to digital recording and secure storage has already taken place.

The digital journey as Graham sees it is about pulling together all that digital media into one secure storage area where it can be accessed by all the relevant parties, including the Crown Prosecution Service. 'The custody side is only the first step to sorting out this problem. In the future you'll be able to replay audio from the call centre back to suspects in the custody suite during interviews, or

footage from an officer carrying a head camera.'

The origins of Damovo's solution go back to a pilot carried out in Lancashire. Around two years ago a pilot initiated by the Home Office tested the digital capture of audio suspect custody interviews. Following on from the pilot Damovo took the decision to develop a digital recording capability which would meet the needs of the police.

Damovo decided early on that its solution – CODES (Complete Online Digital Evidence System) – would sit in a laptop. Cameras with in-built microphones as well as off-the-shelf software are included in the system, which runs on a dedicated Dell laptop that is securely attached to the interview room table. 'The idea is that once the interview has been captured it can be sent to the CODES server, and from there across the network it trickles into the storage area. Once it is there, it can be networked wherever it needs to be.'

A key aspect of the system is this 'trickle down' effect which ensures evidentiary data is not blocking the network at times of high traffic: 'Many forces have networks that are already under strain and which would fall over straightaway if CCTV feed was added.' Forces that do not currently have the network or data storage system in place will have the option of burning DVDs – essentially the same procedure as with cassettes – but Graham points out that this is just

replacing one medium with another, and would not deliver the real benefits associated with a digital on line system.

Graham explains how he envisages forces will allow evidentiary data to be placed outside the force's firewall, so key users such as suspects' advocates could access it online. 'This is not just about policing but criminal justice, and different parties need to access this information, whether it be the defence, the prosecution, the defendant, the court, the typist etc.' Once forces have taken the decision to go down this route then they can choose appropriate business rules in terms of access. 'Every time we speak to a police force we find out a new requirement. For example the British Transport Police – who want digital evidential capability – also want the ability to live stream data, to help quickly assess if an incident is an accident or crime scene on the railway line. That initial assessment is key in terms allocation of resources and minimising the time a line may need to be closed. Better and more accurate assessments can be made by allowing decision makers to see what's going on in real time remotely.'

It is widely known that many forces have held back from investing in digital recording for their custody suite interview rooms until the NPIA's framework decision was awarded. Now the announcement has been made, it is time for the digital journey to begin.

*Opposite, left to right: previous to working with Damovo, Graham Dickinson was ex-police superintendent with Surrey Police and the NPIA; the Damovo solution sits in a dedicated laptop that is attached to the interview room table.*

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# APCO Global Congress, June, Dubai

*The APCO Global Alliance is bringing a public safety conference and tradeshow to Dubai in June this year. BAPCO Journal finds out more of what the event aims to deliver to Middle East practitioners.*



*The tallest building in the world, the Burj al Khalifa, Dubai.*

**T**he first APCO Global Congress (6-8 June) is a three-day event whose aims are two-fold – to provide high quality educational programming and to showcase the latest in public safety technology.

The event is being hosted by the APCO Global Alliance, which is formed by BAPCO (UK), APCO Australasia, APCO Canada and APCO International. 'One of our goals was to host a global event in an area where none of the organizations currently had a footprint – so that's where the Middle East came in,' explains Lisa Williams, Senior Manager of Events & Corporate Outreach for APCO International. 'This area has a lot of potential and we are hoping that after this Congress has taken place, a new Middle East chapter will be set up to carry on with the training and standards – and hold an annual event there.'

The Middle East is not new to APCO International, and the organization has in recent years been carrying out training for call takers in Saudi Arabia and Jordan. Loredana Elsberry Schwartz, Communications Center & 9-1-1 Services Manager for APCO International, explains more: 'We are taking to the Middle East a lot of our US-based training such as Public Safety Telecommunicator (PST) 1 and Active Shooter courses. A lot of these courses are based around standards we've developed and which have been nationally certified through the American National Standards Institute.'

'We've had some of our adjunct instructors in Saudi Arabia and Jordan for a significant period of time, working with the agencies there.'

There does appear to be a demand for formal training in some parts of the Middle East, says Loredana, particularly in areas such as call taking, where there can be a lack of common procedures for both planned and unplanned events. 'It is a matter of providing a more formalised procedure for both daily situations and crisis ones.'

As for the event itself, the Global Alliance is expecting some high-profile speakers to be heading towards the InterContinental Dubai Festival City Hotel. These include the Head of Command Control at Amman Jordan, Col. Zied Al-Zobi; the former Assistant Commissioner in Charge of the Vancouver 2010 Integrated Security Unit, Bud Mercer; the Operations Manager for the Air Ambulance, Victoria (Australia), Paul Holman; and Robert LeGrande, former chief technology officer, Washington DC.

A number of commercial organisations are also expected to carry out some presentations, and there will also be some participation from Middle East agencies at both local and federal levels.

Attendees will notice from the schedule for the three-day event that a number of networking sessions have been built into the timetable: 'We did not want to inundate delegates with sessions alone, because although sessions are wonderful and worthwhile at the same time the person next to you might be experiencing the same type of situation as you – and they may have found a solution. At any type of event we organise, we encourage networking and purposefully include it in the schedule,' comments Loredana.

Around 35 companies are expected to exhibit their technology, including platinum sponsor OnStar, Motorola, PowerPhone and Harris. 'We are also already making plans for 2012,' adds Lisa Williams.

Lisa is optimistic that the event will grow – and with around 500 delegates expected, and with some agencies committing to sending up to 50 visitors, there is every chance it will do so.

*To find out more about the APCO Global Congress, visit [www.apcoglobalcongress.org](http://www.apcoglobalcongress.org).*

# Press the red button for medical care

*With NHS Trusts tasked to deliver between £15 billion and £20 billion in efficiency savings over the next three years and the introduction of the QIPP agenda, Healthcare Trusts across the country are considering the ways that they can do more and deliver a better service with the same or even less resources, writes Declan Hadley, associate director of information management and technology, Lancashire Care NHS Foundation Trust.*



**W**ith the need to increase the level of quality care and services we provide, many organisations are starting to work in a much more collaborative and efficient way. So, they're really open to the idea of sharing resources across sites, towns and even counties. It's at a network level that we're seeing opportunities really open up – be these optimising online security, allowing health and social care workers to work on the move, or improving access to key information.

We've linked hospital sites, clinics and surgeries, mental health and social care departments, prisons and other NHS sites all together via one high speed network from Virgin Media Business. What this means is that everyone has access to the right information, easily and simply. Projects are able to run much smoother as they pass between departments and different organisations within the network.

Simple things such as accessing patient data are done in different ways on different operating systems on a different network. By collaborating with trusts across the county, we're able to break down these barriers and change the way that information is accessed. We've not really seen collaboration between healthcare Trusts on this level anywhere else in the UK, but we believe that it's absolutely necessary to drive change and personalise patient care.

Having the freedom to access your own medical information or have a nurse or doctor visit you at home puts the patient directly in control. As part of the Government's move towards making healthcare more accessible to all citizens, we're trying to develop services that can be accessed remotely across the county, provisioning healthcare directly into the home. What's so important about this is that it maintains a patient's independence.

Technology is enabling more and more services to be delivered into the home and other locations. From visiting a mobile healthcare unit set up in a village hall to being treated at home by a doctor via a webcam, the possibilities really are endless. And being treated at home will mean

that beds can be freed up in hospitals for more urgent cases, nurses will have more time to spend delivering care, and patients and their families won't have to pay for things like car parking when driving to a hospital.

In the future, patients will be able to access information and results and receive care remotely via the internet. One day, patients could even access care services from their front room via the red button on the TV. If you think about how we shop online for our weekly food delivery, we expect a certain level of service and want products and interaction at the click of the mouse. That same level of service and more is what patients expect of the NHS in the 21<sup>st</sup> century.

We're striving to do things differently to help the NHS evolve. I'd like us to carry on collaborating with healthcare Trusts and sites across the county so that we can exploit the core infrastructure that we already have. Our approach to health, technology and security is to make everything move in a collaborative way. How we can truly revolutionise the way that healthcare is provided is by using technology. One of the things we're looking into, if it suits the patients' need, is to offer Virgin Media residential subscribers the ability to access care services by pressing the red button on their television. Television is becoming more and more interactive and we believe it will become the hub of remote care services, so we need to make sure that we can provide this to our citizens.

The Virgin Media Business *Healthcare of the Future* study revealed that 29% of the population believe they'll be able to access their GP via webcam in 10 years' time. We're already exploring using a webcam to enable clinicians to consult with patients remotely, as the independence this will offer patients across the county is massive. We have the core technology in place, but it's absolutely paramount that the levels of security are right in order to protect patient confidentiality. If we can be assured that services such as these can be accessed securely, then this could totally revolutionise the way healthcare services are delivered.



**"In the future, patients will be able to access information and results and receive care remotely via the internet."**

**» Declan Hadley,**  
*Lancashire Care  
NHS Foundation  
Trust.*

# Power IT on the streets and roads

*The latest launches into the market all have one thing in common – they are adapting to an increasingly demanding environment with exacting requirements. Whether it be for lighter, more powerful, more cost-effective, more streamlined, or more resilient solutions – there is something for everybody.*

## ➔ The semi-rugged option: performance at a lower price



In these days of austerity – when every purchase may have to be fought for – the focus is firmly on both efficiency and price.

And that is where the Getac S400 might be a solution.

Launched towards the end of 2010, it is a semi-rugged solution, which means that while it meets US military standard 810G, it doesn't have a full IP rating.

Saying that, it is IP5X (6 is the highest)

so it has been tested to dust (fine-grained circulating talcum powder in a dust chamber for 2- 8 hours), but not to water ingress (although it is water and splash resistant).

What makes this notebook attractive to the emergency services, says Getac's Ian Jenner, is that with a price tag starting at around £1,300 it is approximately half the price of a fully rugged equivalent.

It may not have the robustness of fully ruggedised laptops, but it does have the same computing power and features (Windows 7, GPS, HSDPA, 3G, touch screen etc). Moreover, the fact that it is not fully rugged isn't necessarily a problem, believes Ian: 'For the emergency services the units are often either used both in the office and inside vehicles or sometimes permanently fixed in the vehicles, so the users don't need the full IP rating as the units will not be exposed to water.'

Ian adds that this lightweight (2.9kg) notebook has already proved itself in other markets around the world, and there is no reason why it can't do the

same in the UK – where he has seen evidence that there is demand: 'We have seen a lot of interest from the emergency services, with the feedback that we receive, our customers are saying that the pressure on driving efficiencies and reducing cost, which is making them look at this type of technology and at this price point.

'They are being tasked to be more efficient and this means standardising computer functions and partial data recording rather than writing notes and going back and forth. It is about being quicker and more accurate, and budgets are opening up to achieve this.'



## ➔ Launch imminent for ultra-light tablet for mobile collaboration



Motion has launched a new ultra-light tablet PC for mobile collaboration.

The Motion CL900 is expected to be out any moment now (second quarter 2011). It has been designed to be robust and mobile, while also allowing for versatility.

Offering dual touch and stylus input, the tablet is said by Motion to allow up to eight hours of battery life per day in uninterrupted productivity. It is light (less than 1kg) and thin (16mm), but meets MIL standard 810G as

well as IP 52 (dust and water).

For advanced communications there will be options to include Gobi 3000 mobile broadband with GPS, 802.11 a/b/g/n WLAN, bluetooth 3.0, and a wireless SIM port.

Expansion features include front and rear-facing cameras to support documentation, video conferencing and collaboration; a full complement of ports (including USB, SD card, audio and video); and a countertop docking station for touch input.

## ➔ Docking solution with touch screen for Toughbook CF-19



Panasonic Computer Products Europe (PCPE), Tempus and Vauxhall have introduced an innovation that seamlessly integrates the Toughbook with the latest police Vauxhall Astra vehicles.

The Toughbook CF-19 empowers officers on the road with the same information as is available back at base.

Both the new Tempus dock solution and

Toughbook are NPIA assessed and Specification 5 certified with the Toughbook located inside the glove box, while an 8.4" high resolution touch screen interface is positioned directly on the Astra dashboard.

The new Tempus-designed docking solution enables officers to easily remove the Toughbook from the glove box when it is required to be taken to the scene of the incident.

Vauxhall launched the custom Astra in March at Millbrook to UK police. William McGregor, Corporate Sales Manager of PCPE, said: 'The Toughbook has long-since been a trusted solution within police vehicles, which is why we have developed this new docking solution with Tempus for the latest police vehicles. Toughbook rugged mobile computers are already in use by several police forces across the country, and have proven themselves already as a revolutionary

resource to police work; at a time when spending cuts are rife, a device that enables the force to save time and money will be invaluable.'

When out on the road, officers can use the Toughbook to access the same databases and applications available back at the station, so they can be alerted to incidents as soon as they are reported and respond in the fastest time possible.



## CANADIAN POWERBRICK PC HITS THE UK

Primetech has recently introduced from Canada to the UK the PowerBrick ruggedised PC – and what's more, Gloucestershire FRS has already taken delivery of one for its mobile command unit.

What makes the PowerBrick special is it is compact and can be mounted discreetly in a vehicle (out of sight and access from thieves); it is completely upgradable; it is a solid state PC so there are no moving parts to be affected by damp or dust (IP 65); and it uses no proprietary connections.

Four different units currently make up the PowerBrick range, each with its own specialist capabilities but all with a two-year warranty that can be extended to five years.

The PowerBrick DV has been designed for the smaller style incident command unit, so it has two independent VGA outputs which allows two operators to view different applications off the same PC.

The PowerBrick CV is ideal for monitoring-hungry situations. It can handle 16 camera feeds simultaneously and it has an integrated four-channel digital recording unit that can produce date and time-stamped high quality video at the high rate of 120 frames per second.

The PowerBrick Atom is a straight replacement for a desktop PC and provides entry level introduction to this kind of technology. Nevertheless it comprises the same type of benefits, such as guaranteeing any applications and documents on the screen that disappear due to power loss are replaced intact on power up. Similarly, all internal elements are protected by a power management system that monitors incoming voltage. Similar

capabilities sit within the PowerBrick mobile data terminal, which is geared up for use within small emergency vehicles.

Henry Walker of Primetech told *BAPCO Journal* that a new PowerBrick would also be added to the range soon, which will combine the dual operational capability of the DV with the recording power of the PowerBrick CV. 'It is being used by fire services in North America with 1,200-nit screens, which are sunshine visible and which give users 180 degrees of visibility of what is on the screen.' The size of the PowerBricks is one of the characteristics that will attract the UK police market, predicts Henry: 'Police forces typically have many cameras but the main thing is that these big and bulky desktop PCs are squeezed into vehicles and they are not designed to be used in these environments. They crash – and this doesn't happen with the PowerBrick, which can be switched off without any loss of data.'



# A network for Devon and beyond

*During an event that took place in Exeter Rugby club, Devon County Council and Siemens revealed their vision for a network of networks – and one that is already alive and kicking.*



*From the top: Andy Clark, Siemens Enterprise Communications; Devon County Councillor Andrew Leadbetter; and Deputy Chief Executive of Devon County Council Heather Barnes.*

The event at Exeter Rugby Club, staged by Siemens Enterprise Communications and supported by Devon County Council, showed how public sector organisations can achieve system connectivity for joining up services by accessing a common network known as the Public Sector Network (PSN).

ICT and other senior departmental staff from 80 local authorities and public bodies across the South West attended, and speakers included Ian Wilcox, local government representative for PSN at the Cabinet Office; Simon Norbury, project director, Yorkshire and Humberside PSN; and Heather Barnes, Devon County Council's deputy chief executive.

PSN is an initiative driven by the Cabinet Office that is already being adopted by many local authorities and supported by private sector ICT providers. It aims to encourage councils to share networks and services, thereby greatly reducing ICT costs, via setting up common front-end business applications or back-office infrastructures, and enabling public bodies from beyond the region to opt in and drive further cost-saving collaborations.

Andy Clark, head of public sector, Siemens Enterprise Communications, explains the background of the Devon project: 'Two years ago Devon County Council came out with a tender. They were very clear in what they wanted – a network for Devon, as opposed to a network for Devon County Council! The difference in wording is crucial, highlights Andy, because what Devon was aiming for was a network that would have the reach and capacity to be used by other public sector bodies and workers in the area, improving efficiency and saving money.

Alongside the shared network, Devon purchased the Siemens OpenScape solution – a voice unified communications product – which will enable the Council to implement flexible working. OpenScape is a carrier grade solution that has been designed to support up to 100,000 users. 'What Devon has built in terms of a core network is a four-lane motorway and what they need for themselves is one lane and occasionally two lanes. So if you are a fire service and you have fire stations dotted around the county with a similar dispersal to council sites, rather than build a new motorway to connect them all, all you have to do is build the slip roads onto Devon's backbone and highway. So you are not building a network and buying an expensive core, you are just building links to that network.' Andy adds typically this results in savings for participating organisations.

Today, Devon's wide area network connects 160 sites and provides them with voice and data services.

Up to now the emergency services have not rushed to

jump onboard similar County Council-wide initiatives, however. 'So far in our observation and experience a lot of this has been local authority to local authority, where there is a two-tier structure. But there has been some interest from Devon and Cornwall police, who attended the event in Exeter.' Nevertheless, Andy adds that a similar initiative in Essex resulted in a wide area network for schools and corporate sites, and which then expanded to include a network for Essex FRS.

Andy is reassuring with regards to the scalability of the network, should a number of heavy consumers of data join it (eg NHS Trusts), but he is also realistic: 'In the core links there is a reasonable amount of spare capacity, and a first contract typically has a service agreement round it. In this instance, Devon County Council would not allow us to oversell capacity. There may come a point when we need to upgrade some of the core links and provide extra capacity – which is something we have done over the years in Essex. There we started connecting all the schools and Essex FRS came on board, and then they added a number of corporate sites at which point we had to upgrade to keep the contention ratios and capacities where they should be.'

Looking further into the future, it is envisaged that all the various public sector networks around the country will be interlinked under the PSN banner (the common standard that will link them all), allowing everyone to connect to everyone else. This could open up the field towards hosted services – or G-cloud. 'G-cloud is effectively about hosted applications that could be accessed by multiple organisations including police, local authorities, and so on. Some of the things we are doing in Devon bear some similarities. For example Devon County Council has the OpenScape voice and unified communications platform, and any other public sector body connected to the network can access the same solutions by buying some licences. So they can be provided with voice contact centre services without having to buy their own infrastructure. This in principle is the same as the G-cloud concept'

Devon's initiative is a perfect fit for the Cabinet Office's Public Sector Network (PSN) initiative, having been completed before PSN plans were completely finalised, and places Devon at the forefront of the PSN programme. 'What we are seeing is a common direction of travel but different organisations are moving at different speeds. The likes of Devon, Kent and Hampshire are flagship PSN projects in terms of what they offer and the benefits around shared services. At the core is the concept that you build the network once and then you share the infrastructure,' concludes Andy.

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