



➤ **Unstoppable:** a common approach to public services infrastructure networks?



➤ **National address gazetteers** are providing the key to the sharing of information.

Information management for civil contingency responders

BAPCO

Journal

Volume 16 Issue No 3 • May 2010 • £3.50

Community alert

Holland's new public warning system

Mind the gaps

Digital recording and the Stockwell shooting

Game over on records battle

Court refuses Commissioner's application to appeal on retention of criminal records



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Printed in the UK by Latimer Trend & Co, Plymouth, Devon.

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Published by **Hemming Information Services** 32 Vauxhall Bridge Road, London SW1V 2SS



President's address

On reflection the BAPCO Annual conference and Exhibition seems such a long time ago. It was well attended and ran to plan despite some significant issues arising when international speakers and delegates could not get into the country because of CAA flight restrictions due to the Icelandic volcano eruption.

My thanks go to Brintex and the BAPCO organising committee who had to make some very urgent changes to the conference programme and still came up with an interesting and informative set of sessions with some very high caliber speakers.

Some discussions have taken place with exhibitors and delegates and there is a view emerging that we should look at refreshing the arrangements for next year's Annual Conference and Exhibition and perhaps look for a different venue. This will be considered by the Commercial Advisory Group and any views you have on this please email Ray Trotter, our current Executive Director.

In terms of Ray, I am very sorry to tell you that he has decided to stand down from his post and we will shortly start the search for his replacement. On behalf of

the Executive Committee I would like to place on record my sincere thanks to Ray for all of his hard work and commitment. We are determined to find an inspirational leader to continue to take the organisation forward to face the challenges of the future.

BAPCO road shows are due to start in the Autumn, please support your regional events as much as possible. We value your input and involvement in the organisation, without this it cannot develop. Please also note that the AGM was adjourned until 27th July 2010 at Kegworth and the papers

for this will be available shortly.

Best wishes,



Hayden Newton, President

The CAG column

Welcome to the May edition of the CAG column. Those of you who read the March column will possibly remember the emphasis on data replacing voice in communication and information technology, in particular, the integration of several disciplines into a common link. This time I want to expand the theme and look briefly at data security when planning wire-free systems.

Many of our commercial members specialise in the provision of data security, from internal office access to advising on the protection of mobile personnel from hackers. Their offices are open to our active members (that is, our emergency services representatives) for more information about how to accomplish the goal.

The requirement for the most basic best practice (bearing in mind that passing a

regulatory audit does not necessarily mean effective security) or more rigid encryption systems are for organisations to select individually. The commercial membership is there to advise (yes, of course, and sell their wares) on best current practice pertinent to that requirement. Whether it be for the secure transfer of data to and from personnel on the move, both in this country and abroad, or secure access to data within a building or a company, security of data is a growing problem and one which demands ever higher levels of sophistication to counteract that of the cyber thief – who could be sitting on the next seat at the airport.

Science fiction? Not now it isn't. In the next issue, I hope to be writing about the BAPCO Annual Exhibition and

what it meant to our commercial members – do give me your input so that I don't have to put my own slant on it – it will then only be my own viewpoint and will not necessarily reflect those of the membership.

Until next time!



Colin Evans, CAG Secretary

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➤ Future user requirements

In order to define the benefits of a new generation of dedicated mobile broadband networks, and to support the identification of additional spectrum, the TETRA Association commissioned Analysys Mason to undertake a study to gather information on future public safety user requirements, based on a review of existing documents and reports recently published in Europe.

As part of the study, Analysys Mason reviewed a wide range of existing documents and reports relevant to this market segment.

Analysys Mason defined four possible evolution paths for the future demand of mobile broadband applications within the public safety sector as part of the study.

Consideration of these different evolution paths demonstrated that the capabilities of current narrowband and wideband dedicated mobile networks used by the public safety sector will not be sufficient to meet future requirements under three of four evolution paths that were defined. A summary of the four alternative evolution paths is provided in www.tetra-association.com/tetramou.aspx?id=10269.

➤ DMR news

The Digital Mobile Radio (DMR) Association has welcomed two new members; Shenzhen HYT Science & Technology Co (China) and Team Simoco (UK) to the group which represents organisations and individuals supporting the European Telecommunications Standards Institute's (ETSI) Digital Mobile Radio (DMR) standard.

The decision of HYT, China's largest Professional Mobile Radio manufacturer, to choose DMR is testament to the technology's growing appeal in Asia.

Team Simoco also sees DMR as a crucial digital technology driver and a key enabler for the progressive replacement of analogue radio networks in commercial markets.

➤ FiReControl to go ahead, but with assurances



The Government's programme to replace 46 local fire and rescue service control rooms with nine purpose-built regional control centres has been inadequately planned, poorly executed, and badly managed, said the Communities and Local Government Select Committee.

Launching a report of an inquiry into the FiReControl project, CLG Committee Chair Dr Phyllis Starkey said: "The original aims and expected benefits of this scheme were, in our view, sound. But the department has clearly not learned from its previous mistakes with the New Dimension project.

"On balance, however, given the investment of public funds already committed, and the benefits that will accrue, MPs conclude that DCLG should press ahead with the FireControl project so long as Ministers can agree urgently a viable project plan that will see the project go live by a target date of mid-2011 and in which the main stakeholders can have confidence."

After examining the project closely

the Committee concluded that the future of a prompt and efficient and modern mobilisation system for the fire service had been put at substantial risk because:

- * The original agreement with the IT contractor was ill-suited to the nature of the project and there was insufficient consultation with end-users.

- * High staff turnover within DCLG, especially at a senior level, compromised the Department's ability to manage the project effectively.

- * Relationships with major stakeholders and contractual partners have been mishandled. A lack of openness, collaboration and explanation by DCLG means many Fire and Rescue Authorities now have profound reservations about whether the new regional system will deliver a more efficient, safer service.

- * Escalating costs and severe delays look set to leave several key Fire and Rescue Authorities managing their migration to a new system at the time they should be preparing for

the high-profile safety concerns presented by the Olympic Games in 2012.

* The fate of the project remains further exposed by an adversarial relationship between DCLG and the main IT contractor, EADS.

Lastly, the committee also condemned the Government's refusal to allow the Committee sight of independent management reviews for the project – even in confidence.

Commenting on this point, Dr Starkey added: "This refusal implies the department is deeply insecure about its handling of the FiReControl project and unwilling to be accountable. This is regrettable.

"Looking forward, the committee concludes that the excessive cost of abandoning the project – an extra £8 million more than it will cost to complete – indicates the Department should continue with the project so long as it also:

- * examines alternatives and provides assurances that FiReControl represents the best viable option for the future of Fire and Rescue Services;

- * resolves its contractual dispute with EADS and implements a viable project plan;

- * addresses the shortcomings in its management of the project;

- * consults fully with FRS staff and professionals to define end-user requirements

- * provides assurances that the safety and security of the Olympic Games will not be compromised by the roll-out of new Regional Control Centres."

➤ Integraph support FiReControl

FiReControl will use map-based incident response management solutions from Integraph.

Integraph recently joined the consortium, led by EADS. Control centre operators at the nine regional control centres will use Integraph's geospatial computer-aided dispatch (CAD) solution to record and manage the critical information needed for effective and efficient incident response.

Control centre personnel will use interactive, real-time map displays of the location and status of incidents and

nationwide resources, integrated with automatic call distribution and call handling software, action plans and pre-determined attendance plans for resource mobilisation. The system will be directly linked to fire station equipment and mobile data devices in fire service vehicles.

Decision-makers recently concluded that Integraph's public safety technologies were best suited to meet FiReControl's scalability and "virtual control room" requirements for optimised day to day response.

➔ Enhancing Airwave analysis

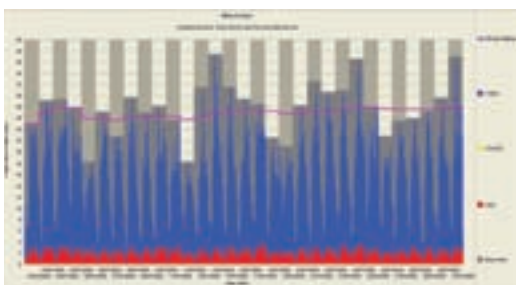
Syntech is enhancing its market leading Airwave CDR (Call Detail Records) Analysis and Reporting Tool for the Airwave Tetra network with two new analysis modules.

The first module is a powerful new billing module for auditing Airwave's charging mechanism which now encompasses data from both voice and data service CDRs. Users are able to easily analyse and report the key billing parameters of "busy hour", "90 day rolling average" and "peak 90 day rolling average", helping to deliver an efficient service while keeping an eye on the costs of doing so.

The new Data Service Analysis Module provides an even greater level of analysis and reporting capability. This provides all the information managers and decision makers need for optimising their use of the Airwave Data Service such as assessing the usage of status

messages, SDS messages – and soon – IP sessions.

Understanding how data is being used and charged for enables costs to be minimised, data applications to be assessed and the total Airwave service to be managed in the most efficient way.



➔ IT and citizens in policy making

Brunel Business School is leading an international consortium of academics that has won a multi-million pound grant to develop mobile phone technologies to involve citizens in policy making. The project will develop user-friendly technologies and platforms

which can be installed on mobile phones to allow the public to input directly into policy-making, by giving feedback on issues affecting their daily lives. This project will essentially prove the ability and need for the creation of "apps" that are public sector-focussed, picking up where iPhone services end. The three-year UbiPOL (Ubiquitous Participation for Policy Making) Project has received a total grant of 2.7 million Euros from the European Union, with £400,000 awarded to Brunel Business School, whose Dean Professor Zahir Irani is co-ordinating the consortium. The other members involved in the project are Barnsley Metropolitan Council (UK), telecommunications company Turksat, web map provider Basarsoft, and Sabanci

University (all from Turkey), innovation, communications and technology companies PDM&FC (Portugal), IPA SA (Romania), and Fraunhofer FOKUS (Germany), and the Corvinus University of Budapest (Hungary). "This project will develop a mechanism by which the public can access local government at their fingertips and, more importantly, to give feedback and suggestions which can then be considered by policy-makers. It will be a public sector version of the private sector revolution we are witnessing following the launch of the applications [apps] we now see on mobile devices, the difference being UbiPol will promote 'apps' that lead to social cohesion through Government", said Professor Zahir Iran, Dean of Brunel Business School.



➔ Tendring's crime success

Tendring Business Against Crime (TENBAC), a proactive business crime reduction partnership, has announced that it has gone live with NBIS (National Business Information System) – a web-based data sharing technology from Risk Management and Crime Reduction software specialists, Hicom.

Using NBIS, TENBAC is able to track and monitor the activities of offenders and produce detailed reports and analysis in order to reduce levels of crime in the area.

As a formal partnership between the Police, Tendring District Council (North East Essex) and other local business organisations, TENBAC is dedicated to ensuring that Tendring remains a safe and appealing area to retailers, shoppers and businesses alike.

Jonathan Hayter, District Commander Tendring, Essex Police, commented: "Prior to establishing TENBAC, it was clear from a policing point of view that Tendring would benefit from bringing its various business forums together into one single organisation with easy access to the local police. Providing local businesses with a single voice through TENBAC enables better communication between the community and local authorities, helping to deliver a safe environment for residents, businesses and visitors throughout Tendring."

➔ Firebuy selects Excelerate for Framework

Firebuy, the national procurement framework for UK Public sector bodies, has selected Excelerate as an approved supplier in three categories:

1. LOT 4: Fully inclusive Supply, Servicing, Repair and Refurbishment of Specialist Equipment in Support of Mass Decontamination to include Detection, Identification and Monitoring (DIM);
2. LOT 6: Fully inclusive Supply, Servicing and Repair and Refurbishment of Specialist Equipment in Support of Command and Control (C&C).
3. LOT 7: Training.

The specifications for Lots 4 and 6 will allow users to upgrade to, and integrate, comprehensive mobile satellite broadband solutions.

The Framework commenced on 1st March 2010 after a call for submissions for the Supply, Repair and Maintenance of Specialist Equipment and Ancillary Products and Services in Support of National Resilience in the Official Journal of the European Union (OJEU).

Selection means that prospective buyers can procure systems and services with reassurance, simplified procedures and reduced delay, based on common, verified and approved standards.

The principal objectives of the Firebuy Framework include delivering greater standardisation, interoperability, quality, safety and fit for purpose equipment through a process of compliance and certification.

➔ NPIA publishes science strategy

NPIA has published a new strategy focussing on cutting-edge science that helps the police to detect crimes in hours rather than days and creates safer neighbourhoods.

Science and Innovation in the Police Service 2010-2013 sets out how the service aims to bring offenders to justice more quickly, creating massive savings that will be diverted into priority issues like frontline policing.

It also commits the service to building stronger partnerships with the scientific community to focus research in areas that will have greatest impact on public safety.

Chief Constable Peter Neyroud, Chief Executive of the NPIA, said: "The police service in England and Wales is one of the most innovative of its kind in the world.

"By applying modern science on the front line, police officers are detecting criminals faster, staying on the beat for longer and making

decisions based on better evidence about what works.

"The strategy published today sets out a strong commitment to partnership with the scientific community to help focus resources on areas that have the biggest impact for officers."

Already the police service, working with the NPIA, has made good use of science and innovation at a local level. Recent successes have included the use of Evidential Drug Identification Testing kits (EDIT) in 17 forces. These have reduced the cost testing for Class A drugs from around £100 to £5 and increased delivery times dramatically. The Metropolitan Police Service, for example, has already saved nearly £2m as a result. Another 13 forces will shortly launch EDIT within their area.

Science & Innovation in the Police Service 2010-2013 sets out the road map for the future use of science by

the police service. Specifically, it advocates:

- * A stronger focus on directing investment to areas that will deliver the strongest benefits to public safety and confidence.

- * Greater emphasis on the transfer of innovation across force borders and different aspects of policing.

- * Stronger relationships between the research community, private sector and policing.

Policing Minister David Hanson MP said: "Science and technology are at the very heart of the job of the modern police officer, which is why it is so important we continue to work with experts in the scientific community to reap the full benefits of the technology on offer.

"This strategy sets out some exciting plans for how we can make the most of cutting-edge technology in policing and I look forward to seeing the results."

➔ Preventing the detonation



A portable jammer connected to a pop-up tent creates an instant protective faraday cage to prevent the remote initiation of a radio controlled bomb.

Kirintec has been working on a range of novel ways to get their jammers closer to a suspect device so that they can focus small amounts of power on blocking out the signal which will detonate it.

The latest addition to their REBUS counter-IED inhibition system is a self-erecting enclosure.

➔ Summer time



Arqiva is upgrading communications technology at Devon & Cornwall Police Force's command and control centres, in preparation for the summer and the onset of millions of visitors to the counties.

The upgrade to Devon & Cornwall's Software Integrated Communications Control System (SICCS) is part of its 2012 Programme, designed to make the force among the top performing and most technologically effective in the UK.

The new system provides improved integration between the different communication technologies for secure, quick and efficient collaboration between the control rooms and front-line officers.

➔ Super alliance for broadband

EADS Defence & Security and Alcatel-Lucent have signed a strategic alliance to provide advanced broadband solutions to the US public safety market – and the cooperation may eventually be expanded to worldwide markets and other frequencies.

Alcatel-Lucent and EADS Defence & Security have announced they had signed an agreement in principle to jointly develop and offer a powerful mobile solution designed specifically to address the public safety market in the United States.

The EADS and Alcatel-Lucent solution, based on the emerging 4G standard called LTE (Long Term Evolution) and on the public safety Project 25 (P25) standards will provide mission-critical communications to state and local public safety organizations (fire, police and ambulance departments) through a fully integrated, end-to-end solution based on advanced, reliable mobile and IP technologies.

➔ Before – and after

Comms Room Services, specialists in the design and build, refurbishment and relocation of data centres, server rooms and computer rooms, has upgraded Rushmoor Borough Council's server room and made the location watertight to protect it from an identified water hazard.

A new, modular comms room was specified and built – in a live environment – within the existing space using the "Modusec" modular room panelling system with a waterproof layer over the top of the whole structure.

All equipment was moved out,

moved back and, in some cases, upgraded. New walls – water proof and 90 minutes fire rated (60 minutes approved) – were fitted and lined and sealed with a made-to-measure butyl liner laid over a felt. All wall panels were resin sealed to the concrete floor. The new build also included a secure door to the office, a raised floor, new server cabinets, air conditioning, environmental monitoring, uninterruptable power supply, green fire suppression solution and shutdown and callout system.





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Criminal records in safe hands

On the 18th of March 2010, the Government's Independent Advisor on Sharing Criminality Information's published her report on the retention and disclosure of criminal record information held by the police on the PNC, together with the Government's response. Jose Sanchez de Muniain speaks with Ian Readhead, ACPO Information Director, on the significance of the related landmark case and the future of criminal record data in general.

It has been a good year for the Fareham-based ACPO Criminal Records Office (ACRO) and an air of jubilation currently permeates ACRO. And it's not just because a line has been finally drawn under the Association's long-standing criminal-records battle with the Information Commissioner.

On the 11th of March ACRO was voted the Sunday Times' number one best place to work in the public sector, with Detective Superintendent Gary Linton being awarded best leader of the public sector. What makes the accolade all the more meaningful for Ian Readhead is that the award wasn't simply given on the basis of form-filling by management, but rather from one-to-one staff interviews and feedback.

The good news for ACRO began a few months back on the 15th of October 2009, when The Court of Appeal ruled in favour of the police in a landmark case on the retention of criminal record data.

It had been a long-running battle that went back as far as 2007, when five police forces (Humberside, Staffordshire, Northumbria, West Midlands and Greater Manchester) challenged a ruling that they should delete records on criminal convictions.

Five members of the public had in 2007 complained to the Information Commissioner that their petty-crime related convictions committed many years previously should have been deleted. One of the cases related to a record about the theft of a 99p packet of meat in 1984, by a person under 18.

The police argued that all convictions – no matter how old or minor – held a value for them. This view was supported by Criminal Records Bureau, the Independent Safeguarding Agency, the Crown Prosecution Service, and the Home Office. "The Information Commissioner had argued that to retain criminal convictions for 100 years – including reprimands, cautions and warnings – was excessive, and that under the Data Protection Act some form of 'weeding' should take place," recalls Ian Readhead. "The five Chiefs were served with enforcement notices. We all felt however that there was a much bigger issue than that."

Aside from the fact of the potential loss of valuable data for securing future convictions (and we've all seen the stories involving serious offenders being caught after their DNA has been collected and matched, following a minor conviction), there was the matter of cleaning and 'weeding' millions of records held both by the PNC and local forces. "We think this would cost about £50m, so it was a big issue for us."

The first adjudication by the Information Tribunal (which

*From left to right:
Nick Apps, Gemma Sankey, Chris Dean, Kimberly Hiscock, Hannah Davies, Sophie Purvis, Wayne Tatum, Andrea Hyde, Lynsey Davis, Tanya Johnson, Ian Readhead, Tom Flaherty – ACPO, Gillian Couch, Sarah Betteridge, Rebecca Carpenter, Samantha Winmill, Lindsey Eudo-Mitchell, Stuart Whyley, Malcolm King – Hampshire Police Authority and T/Det Superintendent Gary Linton.*



adjudicates on appeals against orders from the Information Commissioner's Office) backed the Information Commissioner's ruling against five forces, who had kept conviction records dating back nearly 30 years for people who had committed minor offences and not re-offended.

The Data Protection Act governs the keeping of information about people and says that information must be relevant and the length of time for which it is kept proportionate. The Tribunal backed the ruling from the Information Commissioner's Office (ICO) that the police's retention of conviction data was not relevant and was excessive for policing purposes.

Following the adjudication, the five forces were ordered to delete the information from the National Police Computer system.

However, a subsequent Appeal, supported by ACPO, was won in October 2009. Furthermore, in February 2010, The Supreme Court refused The Information Commissioner permission to appeal: "because the application does not raise an arguable point of law of general public importance which ought to be considered by the Supreme Court at this time... the application is also refused because the correct application of Community law is so obvious as to leave no scope for any reasonable doubt."

Independent Review of Arrangements for Retaining and Disclosing Records on the PNC

In parallel with the various legal proceedings, Sunita Mason, Independent Advisor for Criminality Information Management, had been working on a Review of Arrangements for Retaining and Disclosing Records on the Police National Computer (see below), which was finally published on the 1st of March.

The Home Secretary Alan Johnson has accepted the principles behind the Mason Report's recommendations: "although in some cases we will need to think further about how they should be delivered."

The Home Office (HO) has agreed that the current retention procedures should continue to apply, and that automatic deletion at age 100 should occur, subject to a technical solution being found. It has also welcomed the recommendation regarding the filtering of information

that is provided to employers as part of the vetting process, and has called on Sunita Mason to chair an expert panel on how such a filtering process would work in practice, in light of existing legislation (Rehabilitation of Offenders Act 1974 – ROA).

On the wider question of ROA, the Government agrees that the Act needs to be looked at afresh, including a public consultation, with a view to reforming legislation.

"The report fully supports we should retain information for 100 years. But where people have minor convictions, there should be a filtering process so that if they apply for jobs, those convictions would not be disclosed – and we fully support that," says Ian Readhead. "We think people should have a fresh start, young people in particular who may have got a caution for a minor offence, should after a lapse of five years be able to apply for jobs and not have that disclosed."

The so-called "weeding" system should not, however, take place within the hard core, valuable data held by the police, explains Ian. This could result in a postcode lottery with some areas weeding in one way, and others in another, with too much room for error. "We think the best way is to retain a complete record, but have rules about how it is disclosed. It is how such a filtering system would function that the HO is asking Sunita Mason to work on."

Currently, the Rehabilitation of Offenders Act has an exemption to the effect that those applying to work with children or vulnerable people must disclose all previous convictions – not just those on the PNC, but all previous convictions. "So that means, if you were convicted of fishing without a fishing licence, you should disclose that. The Mason Report says this legislation does not fit in with the concept of rehabilitation and reform, and that that needs to be looked at."

Whichever solution is arrived at for deleting 100-year-old records, Ian is clear about one thing. It will be final, and the only data that would be kept would be data pertaining to symbolic or historically important cases, such as that of American homeopathic physician Hawley Harvey Crippen (Dr Crippen), who was the first criminal to be captured with the aid of wireless communication, and who was hanged in 1910 for the murder of his wife.



Detective Superintendent Gary Linton was awarded best leader of the public sector.

Opposite, left to right: Gary Linton and Ian Readhead at ACRO's headquarters; Rebecca Carpenter and Sarah Betteridge with the Sunday Times Award.

Retaining and Disclosing Records – summary

Retention of Criminal Records

- No requirement for deletion of criminal records from the PNC, other than deletion at age 100
- Adequate provision to ensure automatic deletion at age 100
- Non-police users of PNC to be subject to external audit
- Suitable controls in place for the PNC and PND to support public protection arrangement without unduly infringing public rights.

Disclosure of PNC records for employment vetting

- PNC information for employment checks will be filtered so employers will not be given every piece of criminal record information
- An expert panel to be created to advise Government on the filtering rules to be applied to new legislative arrangements

- Government to identify a cost-effective filtering system
- Part V of the Police Act to be amended in light of filtering
- Rehabilitation of Offenders Act to be examined and changed for the implementation of recommendations
- Government to consider the issue of soft intelligence disclosure – a more balanced approach to be taken
- Government to review the dual operation of the two agencies within the employment vetting environment, and process integration to be included at a later stage.

Guidance for employers

- Guidance on interpreting disclosure material to be developed for employers
- Clear guidance to be issued to individuals to foster greater public understanding.



Time to address your geo issues

Government services in Britain are undergoing a transformation as part of a major modernisation programme. The transformation of local government is well underway thanks to the e-Government and t-Government initiatives of the last decade that enabled councils to offer centralised services such as multi-service contact centres and web information services. Faith Clark, Geographic Information Consultant, reports.

"GGP gives us the tools we need to manage the data on a day to day basis plus the support and confidence we need to roll out the database so it becomes a truly corporate resource."

➤ *Nicola Smith (above), Business Information Manager at Cambridgeshire Fire and Rescue Service.*

Most councils have realised that with the introduction of standardised data formats, the provision of services no longer needed to be confined in-house or restricted to council information and services could be shared with other public bodies, bordering authorities and the private sector.

As the tremendous potential of shared services dawned on government, attention turned to Britain's emergency services. Previously operating as fairly autonomous regional organisations within traditional county boundaries, real improvements to services would always be seriously restricted by geographic boundaries. As pressure to improve response times optimise resources and improve efficiency increased, so did the realisation that major changes needed to be made.

Over the decades each fire and rescue service, police force and ambulance service had evolved their own systems and datasets for their own region without the need for national standardisation. So, the problem is easy to see but the solution is not that straightforward.

Fortunately for central Government, an earlier investment in local authority e-government has helped create a platform that will ease the transformation of the emergency services. With the standardisation of addresses through schemes like the National Land and Property Gazetteer (NLPG) – and its Scottish equivalent, the One Scotland Gazetteer (OSG) – together with developments by key software vendors in the GIS sector, the essential technologies and services already exist. What remains is a major management challenge to see through what will be

very significant organisational changes over the next decade.

Centralised and national standardised address gazetteers provide the key to the sharing of information that is essential for changes in the way services are provided. The gazetteers are not only more accurate and more comprehensive than traditional address files, but they are designed for easy integration allowing everyone to access the same information – thus breaking down the barriers created by disparate systems and geographic boundaries. In Scotland, changes are already underway following the announcement that a partnership of IT service companies, led by Infotech Enterprises and consortium partners GGP Systems and Infoshare, has successfully bid for a competitive Tender issued by the Association of Chief Police Officers in Scotland (ACPOS), to provide a centralised address gazetteer for police services across Scotland. Lothian & Borders Police (representing the eight Scottish Police Forces) and the Scottish Police Services Authority (SPSA) are overseeing the implementation of the contract, which will see the creation, implementation and use of a definitive national location gazetteer together with Gazetteer Management Software and Web Services throughout police services in Scotland.

Infotech Enterprises as prime contractor will deliver programme management and project support office services, working with GGP Systems and Infoshare to deliver the contract over a three year term. The contract was completed via the BuyingSolutions GISS framework.

Deputy Chief Constable, Tom Halpin, ACPOS National

Command and Control Project Executive, said: "This Contract is a key part of the wider ACPOS business change programme and represents groundbreaking improvements for the Scottish police service. The new system will help us to identify precise locations and allocate the best equipped and nearest police patrol."

This project will see the creation of a national gazetteer detailing every property in addition to the location of police "incidents" in Scotland. It will involve data from each of the eight police forces together with additional detail from Point X's "Points of Interest" dataset and Experian's "QAS Names" data being matched, cleaned and validated by Infoshare. Infoshare will use their ClearCore Product suite to create this Primary Dataset by evidence-based cleansing and validating the Royal Mail's Postal Address File (PAF) and the One Scotland Gazetteer (OSG), which is made up of address data from the 32 Scottish Councils, to provide an accurate up-to-date database of land, property and locations.

Once created, the data will be accessed using advanced spatially enabled Gazetteer Management Software from GGP Systems. Every force will be able to search the gazetteer from the desktop system or remotely using web-enabled devices. By providing real time access to the centralised data, the project aims to improve intelligence for frontline service provision via integration to the new national Control & Command system. This enables back office analysts to have access to accurate incident records enabling detailed analysis, leading to successful resource allocation. This is key in crime prevention, in tackling crime and in emergency planning. By using GGP Systems' Web enabled solution, Officers will also be able to provide feedback to the centralised gazetteer; adding locations, noting exceptions and validating the data with real world observations.

In England, fire and police officers from across the country recently gathered at Cambridgeshire Fire and Rescue Service's (CFRS) headquarters to look at advances the Service was making following the introduction of a new system that is revolutionising the provision of back office services, reducing costs and achieving efficiencies.

Representatives from over 15 organisations were taken through the Service's selection, procurement and implementation process before being given the chance for hands-on demonstrations of the system – GGP Response – a suite of gazetteer management and geographic information software specifically developed for the Emergency Services. "By working closely with other services we hope to share our experiences, demonstrate best practice and even let others learn from the mistakes that we may have already made," commented Jackie Watson, Project Support Officer at Cambridgeshire Fire and Rescue Service. "This event was designed to demonstrate all aspects of the project from the point when we decided to adopt the NLPG and the realisation that our current software and operating processes were simply not up to the job right through to the selection and ongoing implementation of GGP Response. During this process we came to realise the importance of partnering with a single supplier for all our spatial requirements in terms of cost savings, support and future development needs."

The use of the National Land and Property Gazetteer

(NLPG) initially formed the foundation for the Service's risk assessment information enabling joined up working with partner organisations. The NLPG is integrated with every internal database and system enabling the Service to introduce a comprehensive, map based information management architecture.

"The NLPG is a more holistic database than those based on just postal addresses and we obviously needed gazetteer management software that not only complied with the national addressing standards but offered flexibility and compatibility with existing data, software and processes," commented Nicola Smith, Business Information Manager at Cambridgeshire Fire and Rescue Service. "GGP gives us the tools we need to manage the data on a day to day basis plus the support and confidence we need to roll out the database so it becomes a truly corporate resource."

Cambridgeshire FRS undertake many functions beyond the provision of frontline emergency services. "In the course of daily activities we visit properties across the region," continued Smith. "We therefore not only rely on the database as an essential management tool we are also continually updating the information held within. Using GGP NGz we are moving away from being just a 'receiver' of data and will become an active contributor to the national programme."

Other services to adopt the NLPG include Surrey FRS who have introduced a new state of the art command and control system for mobilising its crews and appliances, using the NLPG as the primary source of property and building information. The system ensures the despatch of the nearest, and most appropriate vehicle and is expected to dramatically speed up response times, potentially saving lives and ensuring the safety of its personnel.

The software which has been designed specifically for the mobilisation task includes a real time map interface, enabling command and control centre staff to see "live" vehicle locations. As an incident is reported and logged on the system the nearest, best-equipped and most appropriate appliance is automatically selected based on the type of fire. For example a fire in a fourth floor flat will require an appliance with a ladder of appropriate height. The system also calculates the best routes to the scene based upon fire appliance travel time ensuring the correct vehicle is mobilised.

SFRS has been working closely with their local authorities, the police and the NHS to build on the data quality of the NLPG and further improve the information needed to support the system. It has also migrated all of its internal "risk intelligence" to the NLPG, with which the command and control system is now fully interfaced. SFRS are also building a web portal to post change and update information gleaned from operations as it becomes available. Local authority gazetteer custodians will then access the portal in order to continue updating, validating and further improving the NLPG.

These examples of pioneering organisations clearly demonstrate the benefits of working in partnership to gain improvements in service delivery, efficiency and performance for all. Only by sharing data, information and experience through open dialogue and integrated systems can the full potential of shared services and joined up working be fully realised.

Surrey FRS has been working closely with its local authority, the police and the NHS to build on the data quality of the NLPG and further improve the information needed to support the system.



Reports: solved

How many man-hours does it take to compile reports that identify where resources have been deployed over the last week or month? And what about correlating those reports with incident hot spots? Jose Maria Sanchez de Muniain finds out about a new product that turns a process that has traditionally taken hours into mere minutes. Welcome the Inca Reports.



Readers may already be acquainted with APD's INCA and INCA 2 solutions, a GPS tracking device used extensively in fleet management, and which acts as a single pipe to the outside world by facilitating dual-bearer capability TETRA/GPRS (amongst others).

The latest launch is about data management, however, and not about physically tracking assets. INCA Reports is a software tool that allows the easy manipulation of the tracking data provided by INCA (or other) devices.

At the core of the new software is efficiency and productivity – the new drivers of today's economic environment. The tool is being regarded by APD as particularly useful to police forces on two fronts, firstly to ascertain best asset management, and secondly, to help fulfil the Policing Pledge. Dayne Wilkinson, Development Manager at APD Communications, explains more: "INCA Reports allows you to look at data in a slightly different way. Where historically you would have had analysts pouring over the data to produce meaningful reports, this will alleviate all of that. It is also a tool to help prove that police forces are making the best of the assets they have."

Amongst other things, INCA Reports allows the quick production of vehicle(s) activity and journey reports, either in tabular formats or on a map. Map reports e.g. of a town centre, can be quickly produced that display all vehicles and resources on the map. They can be filtered down to street level and even date and time. "It helps to answer questions such as, 'do we have enough resources in this region?', or 'can we provide proof that we are making the best of the assets we have?'" says Wilkinson.

The GeoFiltering allows sophisticated location-based reporting, for example, it is possible to ascertain asset and

vehicle usage in a particular area over the last four weeks. "This is the perfect tool to prove that the police are patrolling certain regions," adds Wilkinson.

INCA Reports is currently being trialled by Norfolk Constabulary and a Local Authority who is particularly interested in potential gritting-related analysis. While at the moment it is not possible to marry historical asset tracking data with incident hotspots, this, believes Wilkinson, is where the future lies. "The force we are working with has already identified this as a future goal. Currently we only offer this on assets but obviously the future is open as far as importing new layers of data such as incidents."

The feedback so far, says Wilkinson, has been positive particularly with regards to resource savings. "The force produces a report which takes two man-days per month. Using the new system it takes ten minutes after clicking a button – from that point of view the feedback has been fantastic." The technology can also be used to track bobbies on the beat, as long as they have radios that incorporate Automatic Person Location Systems (APLS) technology.

"It can help provide a clear and transparent line of communications with the public, as per the policing pledge. One of the things we identified is measuring the time that is taken out of patrolling a beat, and this system gives the ability to track how much time is spent in a police station, how much time is spent crossing over boundaries to other forces. This can be visualised, showing how many man-hours are wasted per week on – for example – paperwork."

Although the system was originally developed for INCA data, a translation layer has been written so forces that have a different data capturing system may still be able to benefit from INCA Reports.



"Currently we only offer this on assets but obviously the future is open as far as importing new layers of data such as incidents."

➔ *Dayne Wilkinson, Development Manager, APD.*

New vehicle location unit for use on GSM/GPRS

Thorcom Systems, a provider of vehicle location and mobile data solutions, has introduced into the market a high-performance and low-cost vehicle location, vehicle telematics and mobile data unit for use on GSM/GPRS network.

Aimed at high-integrity users, the VLR200 combines best-in-class positioning technology from u-blox with high performance quad band GSM radio communications from Cinterion in a compact and robust product suitable for use in a wide range of vehicles. Applications include real time vehicle location systems,

vehicle telemetry and data recording, and when combined with a supported Satellite Navigation system from Garmin provide mobile data and job despatch facilities.

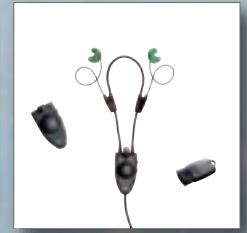
According to Thorcom, its intelligent, rules-based, tracking algorithms provide users with real time vehicle location data while maintaining low running costs. The VLR200 is compatible with its high availability central gateway products and "Software As A Service", which permits personal tracking devices and other bearer technologies to be combined into one.



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The first GB-wide coverage?

British Transport Police (BTP) have always been an enigma within the UK's police force. Unlike other forces, it has national coverage and a specific remit, yet all the while faces many of the same issues that are found in any force. So what is their approach to incident location and land/property addresses? BAPCO Journal takes up the story at a crucial point for BTP.

Rather than just taking the NLPG and placing it in their multi-source, address-data mesh, BTP decided instead to use it for quality assurance for the existing address data, with the ultimate aim of using it as a single gazetteer to supply addressing for all force systems.

To facilitate these unique requirements, over time they built their own BTP Gazetteer that contains all rail-specific locations such as signal boxes and level crossings. Created independently by BTP staff, GIS was used to obtain geographical coordinates for all locations, giving the gazetteer greater operational value and analytical content.

Though an essential component in the ability to identify locations, this BTP gazetteer became yet another of the numerous sources of address data, which also included their crime database and FIS (Force Intelligence System). As with many of the UK's police forces, these multiple sources have an inevitable downside, which is duplication and various spelling and formatting differences, all of which lead to the question, "what is the correct location?"

In an ongoing drive toward standardisation and the removal of these problems, BTP chose to adopt the



National Land and Property Gazetteer (NLPG) as its central source of address data. Through the use of the NLPG, BTP can benefit from daily updates to its data, BS7666

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standardisation and the assurance that comes from the use of the Unique Property Reference Number (UPRN), which is becoming the de facto identifier of property across the public sector.

Rather than just taking the NLPG and placing it in their multi-source, address-data mesh, it decided instead to use it for quality assurance for the existing address data, with the ultimate aim of using it as a single gazetteer to supply addressing for all force systems.

Because of its operational importance, BTP has been working to audit and repair its BTP gazetteer and because this data contained many non-land and property addresses, has also been using the National Street Gazetteer (NSG) within this matching process alongside the NLPG.

At the start of the process less than 10% of the data matched either the NLPG or NSG and less than 20% even contained a street name, with similar characteristics for both postcode and post town. Now, nearing the end of the process, 94% of the BTP gazetteer has been successfully matched to the NLPG/NSG, with the use of UPRN from the NLPG enabling effective integration between the two datasets.

Moving forward, the UPRN will offer BTP a consistent identifier that can be used across all address based systems, which will thereby reduce errors and the potentially dire consequences of those errors. BTP's remit however necessitates coverage of England, Wales and Scotland, so it

has recently made an arrangement to acquire the Scottish equivalent of the NLPG – the One Scotland Gazetteer (OSG).

The main difficulty of using the two datasets is that they are in different formats – the NLPG in DTF 7.3 and the OSG in DTF 6.3. Though not directly compatible, through close working with gazetteer specialists Aligned Assets, they are actively looking at ways to use the two data sets in the one database to provide one seamless source of addresses.

Though still a work in progress, as the first organisation to use the NLPG in combination with the OSG, the eyes of the gazetteer world will be watching closely in anticipation of this first, truly GB-wide coverage. With these national datasets, along side the BTP gazetteer and QAS Names, all accessible via Aligned Assets' Symphony Bluelight Search, BTP will see cost savings, efficiency gains and most importantly, better operational working.

A single source for all address data is something that would be of benefit to all police forces, especially address data that is easily accessible via GIS. What BTP has shown and continue to show is that this can become a reality in all police forces. Central to this is the NLPG and its use as a benchmark for all other address data. By taking advantage of its inherent quality of standardisation, geographic coordinates and UPRNs, the NLPG can only be a good thing for the police force. And best of all, under the Mapping Services Agreement – it's free.

The eyes of the gazetteer world will be watching closely in anticipation of this first, truly GB-wide coverage.





Risk data and the GIS future

Modern information technology is very good at managing large quantities of data and making it available in an easily accessible way. Methods for distributing site specific risk information (SSRI) are being developed and rolled out across the UK's Fire and Rescue Community, paving the way for the day when a GIS interface in the cab of an appliance will call up a detailed map of the incident area including detailed relevant information, writes John Richardson, Marketing Manager, Innogistic.

"We are already talking about the ability for the data to be accessible via a GIS interface on a touch screen terminal in the cab of an appliance. Thereby fire-fighters on their way to an incident could call up a detailed map of the incident area, touch on the building concerned and draw down the SSRI relevant to that building."

➤ *Andy Carter, Innogistic.*

Julian Parsons, Group Manager at Wiltshire Fire and Rescue Services believes that some of the problems regarding the provision of site specific risk information (SSRI) – eg an HSE improvement notice being served following the Atherstone-on-Stour fire in November 2007 – have built up over a period of time and have been exacerbated by a lack of recommended best practice. "In the past there has not been a standard way of collecting, managing and delivering SSRI to operational crews and each FRS has had its own way of collecting and recording information. The number of potential hazards, risks and associated control measures in modern premises are innumerable. This information is needed before attending an incident to allow for operational planning and to be available for the front line crews. In Wiltshire we have recognised that our existing system for managing such information needs modernisation."

All the elements needed are now available to create a system capable of delivering SSRI to front line fire crews. In response to this, the South East CFOA produced a guidance document on the structure and content of information which any such solution should provide. CLG have used this as the basis for their new guidance on the provision of operational risk information which is currently out for consultation. This will help to harmonise the management

of risk information by FRS and will run parallel to the requirements of Regional Control Centre (RCC) project.

One of the core suppliers working on the RCC project is Bristol-based software developers, Innogistic. Amongst its portfolio of products developed specifically for the FRSs is CFRMIS, their Technical and Community Fire Safety (TFS/CFS) solution, which has become the de facto standard for TFS/CFS management and is now used by 60% of the UK's FRSs. Julian Parsons from Wilts FRS takes up the story. "We have been a CFRMIS user for quite a while now. With the increasing debate around SSRI several of my colleagues within the CFRMIS user community recognised that it would be an ideal environment for storing and delivering SSRI. There are significant differences between TFS/CFS data and SSRI, particularly in the structure, content and delivery of the data. However the manner in which it is collected, stored and managed is very similar to TFS/CFS and the facilities already in use within CFRMIS mean that with specific development, it would be able to perform the tasks needed for the SSRI project. For example, CFRMIS has the facility to collect data through the use of portable tablet laptops, which means that the Fire Safety and Community Safety Officers can gather and input TFS/CFS data on site. This facility is going to be equally useful for the collection of SSRI during a site assessment by operational crews. It seemed

Ordnance Survey launches free OS OpenData

Ordnance Survey has launched OS OpenData, an online portal providing free and unrestricted access to a large range of mapping and geographic information (GI).

OS OpenData allows users to download a wide range of mapping and geographic information for free reuse direct to their computers; view maps and boundary information for the whole country; and develop web-map applications using Ordnance Survey's OS OpenSpace API (Application Programming Interface).

The launch follows the announcement by the Prime Minister on 17 November that some Ordnance Survey mapping would be made freely available as part of the Making Public Data Public initiative.

The project, championed by web-inventor Sir Tim Berners-Lee and Nigel Shadbolt, the Professor of Artificial Intelligence and Deputy Head (Research) of the School of Electronics and Computer Science at the University of Southampton, aims to support greater transparency and accountability within Government, improve public services and create new economic and social value.

The release of free data comes after a public consultation document, released on 23 December 2009, set out various long-term strategic options for Ordnance Survey. The launch of OS OpenData marks the culmination of this process, delivering greater access to geographic information in Britain than ever before.

only logical to investigate the possibility of developing SSRI capability using CFRMIS as a base."

Andy Carter, Innogistic's Emergency Services Business Manager, explains how the development project has been undertaken. "We always work very closely with our customers but on this occasion we adopted a particularly 'Fire and Rescue Service' way of working. For example one of the first steps was to form a 'Task and Finish Group' with our existing FRS customers. This has proved to be a highly effective way of managing this whole project. Even though our initial development focused on using CFRMIS as the foundation technology, The Task and Finish Group also recognise that SSRI is an issue that affects all FRSs, some of which do not currently have CFRMIS as their TFS/CFS management system. To allow for this we developed a new Operational Intelligence module to work as a stand-alone system, irrespective of whether or not an FRS is using CFRMIS for TFS/CFS, but fully integrated where it is."

Once the initial specification had been decided upon and the software development work for version 1 had been completed, Innogistic instigated an Early Adopter Scheme, offering Fire Services the chance to be part of the initial implementation of the system and to help thoroughly test it in an operational environment.

Almost immediately 10 FRSs across the country took up this opportunity and more are hot on their heels. "Although it is still quite early days, the feedback so far has been very positive indeed," said Andy Carter. "The main requirements of the initial system are to deliver structured risk information to operational officers and crew within Regional Control Centres and more importantly directly to the appliances. Our customers are already telling us that the data produced is precisely what is required, being easy to read and comprehend so that initial assessments can be made quickly. However there is embedded information and links within this data giving the ability to 'drill down' and source further technical detail as it is needed."

In order to ensure that the data is usable at any control centre or on any appliance, it needs to conform to a specific standard. Within the RCC project this is known as Product 62 (after the 'Deliverable' reference number in the RCC project requirements) also known as a Tactical Information File or TIF. Andy Continued: "The beauty of this standard format of data is that it can then be used to power a multitude of different functionality provided the end application is set up to

read the TIF which our solution provides. As a result, the data can be used in a whole host of database applications. For example, at Innogistic we are specialists in the development of solutions involving GIS (Geographic Information Systems). The Data served in a TIF format will allow GIS functionality to be utilised at any point where the data is to be displayed. We are already talking about the ability for the data to be accessible via a GIS interface on a touch screen terminal in the cab of an appliance. In this way fire-fighters on their way to an incident could call up a detailed map of the incident area, touch on the building concerned and draw down the SSRI relevant to that building. Similarly they can also use the GIS to see if there are any other significant risks in the surrounding area."

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Delivering an effective police service to remote communities



By David Savage, Founder & CEO of Excelerate Technology.

Top to bottom: Nottinghamshire Police and County Council's joint mobile comms unit; inside a command and control communications suite.

As the squeeze on public services starts to bite, forces are coming under increasing pressure to use existing resources more efficiently and balance budgets in a more effective way. The role of police stations in remote communities is coming under review as these costly resources present significant opportunities for cost savings. However, closing local stations will be a contentious issue with the communities they serve as people fear the consequences of losing their local police presence.

A number of alternative solutions are under consideration including the use of free office space provided by the local authority and the use of mobile police stations as a cost effective and more efficient way of providing a community policing service in these cash-strapped times.

Mobile police stations

Whilst current mobile offices, used by some forces when attending major incidents can provide a visible point of presence, they are extremely limited in what they can achieve. Simply logging calls and incidents with the promise that action will be taken does not enhance the level of service provided to communities. It is just a low cost, quick-fix alternative to providing a more effective solution.

Mobile police stations must be equipped with the technology to replicate the voice, data and video facilities available at HQ. In this way, they will enable staff to

access the HQ telephone network for internal or external calls and use onboard computers to access databases such as the PNC (Police National Computer), DVLA, Crimes databases, mapping systems, etc.

Satellite broadband is one of the only ways to achieve this as 3G is not sufficiently reliable or resilient for emergency services applications, whilst digital radio systems such as TETRA do not provide the high levels of bandwidth required to run remote data applications.

The use of satellite broadband is now firmly established despite the fact that it has mistakenly been perceived as a high cost option and therefore not suitable for the tight budgets being operated by emergency services. Whilst this may once have been the case, the reality is that these days, once the hardware has been installed, satellite broadband is now one of the most cost-effective options and the service can be tailored to achieve the perfect balance between budget, user requirements and any SLAs.

Sharing resources

Simultaneously, local authorities are trying to enhance their provision of outreach services to the communities they serve and are now deploying mobile facilities for library services, youth services, etc. Co-operation between different agencies with sharing of costs and facilities can make the investment in vehicles of this kind easier to justify. For example, Nottinghamshire Police is sharing a vehicle with Nottinghamshire County Council's

County Contact Service, a partnership that started with the donation of a vehicle to the police to support the Drug Abuse Resistance Education project.

The two organisations decided to jointly pilot a service where a Police Officer and a County Contact Advisor would go out to villages across large rural areas of Nottinghamshire in Bassetlaw, Newark and Sherwood where a high population of older people reside.

Their multi agency vehicle has a seating area in the front area and a confidential office in the rear with additional seating and laptop computers. Excelerate Technology installed a roof mounted transportable satellite solution giving access to high speed broadband to enable staff to provide numerous valuable services, particularly for the elderly. They can have documentation verified for housing and council tax benefits, apply for Blue Badges, report highway problems, make referrals for Homecare or Occupational Therapy and more. For the police, the vehicle will provide access to crime recording and intelligence systems and is helping to visibly enhance the service provided by existing beat teams and 24/7 response throughout the county and actively promote crime reduction initiatives.

According to Chief Inspector Glenn Harper of Nottinghamshire Police: "This mobile resource has raised our profile and significantly improved our ability to engage with local people in their own environment. The direct feedback we receive is enabling us to set local priorities that meet the service delivery expectations of individual communities. It has also helped us to develop valuable community links with local residents and organisations to improve the detection and prosecution of offenders. What is more, the vehicle extends our civil contingency capabilities and has already been used at a number of high profile events throughout Nottinghamshire."

Excelerate Technology can equip mobile units with a wide range of satellite-based voice, data and video technologies that can be deployed to meet different operational objectives. Based on experiences to date, the smart deployment of mobile police stations can help forces to deliver on their pledges to provide an effective and modern police service in remote communities. They will also improve the way that the police service engages with these communities and help to raise public perceptions as to the level of services provided. What is more, they can also deliver significant savings to stretched police budgets.

Civil contingency

It is important to consider that these vehicles can also be used for a wide range of other applications. For example, Gwent Police recently took delivery of a new mobile ICU that provides a tactical silver command solution to ensure preparedness for all civil contingencies throughout Southeast Wales. The unit will also be deployed at public events including the forthcoming Ryder Cup and the Ebbw Vale Eisteddfod.

The ICU has a roof mounted transportable satellite solution that enables the voice, data and video technologies deployed by Gold Command to be replicated. Three ruggedised screens inside the vehicle enable a wide range of specialised command support

applications to be run as well as being used for email, instant messaging and video-conferencing. The ICU also has a range of CCTV systems including a camera mounted on an extendable, pneumatic 5 metre mast and body worn cameras that transmit live video into the ICU for viewing on a large flatscreen monitor and streamed via secure servers to Gold Command. It also has a receiver providing a 'heli-tele' down link allowing aerial images from police helicopters to be viewed in the unit. A wall-mounted electronic whiteboard and a second flatscreen monitor for viewing live television news are also fitted. An internal CCTV camera with full audio recording has also been installed for evidential and review purposes whilst externally, a large touchscreen display is installed under a heated awning for outdoor briefing sessions.

"We worked hand in hand with Excelerate Technology to develop an overall solution that has met all our tactical, strategic and technological requirements within available budgets," commented Simon Leonard of Gwent Police's Emergency Planning Department. "We are extremely proud of our new mobile ICU which will enable us to better serve our local community and improve public confidence in our work."

Excelerate Technology is the market leader in the supply and integration of satellite and wireless-based data, voice and video applications on Mobile Incident Command and Control and Communications Support Vehicles used by the emergency services. It also offers a range of similar solutions for use in fixed and mobile environments for a wide range of other market sectors including education, utilities, medical, sport and commercial.

Excelerate Technology operates and manages its own satellite and private GSM network from its international Headquarters near Cardiff in the UK. There, a Network Operations Centre ensures the delivery of high quality bandwidth, which can tailored in real time to suit the specific needs, budget and service level guarantee requirements of clients. The company offers a complete single source solution by providing full training and support to complement its expert design, development, supply and integration capabilities.

Below: Gwent police command and control – ultra high roofed Sprinter.

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Extraordinary general meeting

Consequent to the adjournment of the 17th Annual General Meeting of the Association held at the Business Design Centre, Islington, London, on Wednesday 21st April 2010, notice is hereby given that the meeting will be re-convened as an extraordinary general meeting at 1400 hours on Tuesday 27th July 2010 at the Yew Lodge Hotel, Packington Hill, Kegworth, Derby, DE 74 2DF.

The purpose of the extraordinary meeting is to receive and approve by formal resolution the following:

- Minutes of the 16th annual general meeting held on 22nd April 2009
- Report of the Executive Committee for year ending 31st December 2009
- Report for the fiscal year ending 31st December 2009
- Election of officers for 2010/2011
- Business plan for 2010

- Budget for fiscal year ending 31st December 2010
- Annual subscription rates for 2010/2011
- Appointment of solicitor
- Appointment of accountants
- Any other business applicable to an AGM

The documents relating to each of the above topics/actions can be found at www.bapco.org.uk.

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Best regards,

Ray Trotter, Executive Director.

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1. PERSONAL DETAILS

TITLE	
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SURNAME	
POSITION HELD	
ORGANISATION	
MAILING ADDRESS	
POSTCODE	
BUSINESS TELEPHONE	
FAX	
HOME ADDRESS (If different from above)	
POSTCODE	
EMAIL	

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2. CATEGORY OF MEMBERSHIP APPLIED FOR

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OFFICIAL ORDER NO

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3. ORGANISATION TYPE

Please tick one item that best describes your organisation

PUBLIC SECTOR AREA SERVED	ORGANISATION TYPE	COMMERCIAL
Parish <input type="checkbox"/>	Law Enforcement <input type="checkbox"/>	Manufacturer <input type="checkbox"/>
District <input type="checkbox"/>	Fire / Rescue <input type="checkbox"/>	Distributor <input type="checkbox"/>
County <input type="checkbox"/>	Ambulance / Medical <input type="checkbox"/>	Dealer <input type="checkbox"/>
Regional <input type="checkbox"/>	Emergency Management <input type="checkbox"/>	Maintenance <input type="checkbox"/>
National <input type="checkbox"/>	Local Authority <input type="checkbox"/>	Consultant <input type="checkbox"/>
Private <input type="checkbox"/>	Central Government <input type="checkbox"/>	Network Provider <input type="checkbox"/>
Other <input type="checkbox"/>	Public Utility <input type="checkbox"/>	Training <input type="checkbox"/>
	Other <input type="checkbox"/>	Personnel <input type="checkbox"/>
		Other <input type="checkbox"/>

4. POSITION RESPONSIBILITIESPlease tick the item that best describes *your* responsibilities in each area:**POLICY & PROCEDURE**

- I approve/develop policies and procedures
 I oversee implementation
 I have a limited role in implementation
 I do not have a role in implementation

PURCHASING

- I approve purchases of products and services
 I select specify products and services
 I recommend products and services
 I do not have a role in purchasing

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- I approve training programs
 I develop/purchase training programs
 I implement/teach training programs
 I do not have a role in training

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

Persons employed or contracted by a public safety agency or a department of central or local government responsible for the provision of public safety services, or are retired from such a position, who are directly responsible for, or retired from, the management, specification, design, installation, maintenance, operation and use of public safety communications and information systems, are eligible for this category of Membership
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- Co-worker BAPCO Journal Sponsor
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 Date of Birth: Day _____ Month _____ Year _____

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SIGNATURE _____ DATE _____

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The show that must go on



Although the Icelandic volcanic eruption made BAPCO 2010 a quieter affair than previous years the quality of visitors more than made up for it – a common denominator in the feedback received by the Journal (Red Box Recorders' Karen Lillywhite even called it their "most successful BAPCO ever!"). Here are some of the highlights of a unique event that brings together professionals from all civil contingency areas.

The big news from Motorola was that it was to supply Airwave with an eTETRA dual-band solution which would provide additional capacity to emergency services in the UK. "This gives extra resilience and capacity, which has always been the cornerstone of the network," explained Marketing Director Heidi Hattendorf during BAPCO Exhibition. "We are already seeing users having capability of using the full range of spectrum from 380 to 430 megahertz, but on the infrastructure side the emphasis has been on a narrower spectrum around 380. What this is doing is making available some of that upper band which wasn't being utilised."

The upgrade to Airwave's core emergency services network has been instigated to further ensure operational needs are met. It allows users to expand their network capacity if they have access to additional spectrum in neighbouring bands. "And from the users' perspective, they don't have to switch hand terminals, as it is all happening behind the scenes," commented Hattendorf.

The eTETRA base stations are built on Motorola's MTS IP base station platform and support the latest advancements in technologies such as TEDS. "So it is already future-proof," pointed out Hattendorf, "ready for additional IP network capacity expansions and upgrades. What this means now for planned events such as New Year's Eve, and Notting Hill Carnival or unplanned emergencies is that on the network side the user will get additional benefits, as

they will be able to accommodate more users and have that back-up ready."

The move is in step with the increased demand for data usage and prepares for next-generation capabilities that are envisaged to exert even greater demands on existing systems. "What we are finding is that different agencies have several systems working independently on data. One of the ways to connect all these is via IP, so there is an IP revolution happening focused around the needs of mission critical users."

PageOne – conference presentation

Marketing Director for PageOne Communications Clair Cawley – who heads up product development – talked about two-way paging and MTPAS, what it meant for Cat 1 and Cat 2 responders, and how two-way paging was being used in the UK.

Two-way (mission critical) paging was introduced in 2009. "Two-way paging offers organisations in the UK a reliable communication mechanism that combines the speed, reliability, and bandwidth of paging, but now with the auto acknowledgement and response of GSM.

"In essence two-way paging uses PageOne's independent network to deliver messages out to the field, and then either via SMS or GPRS we enable users to respond to those messages. You can also locate those devices using GPS positioning. So key features are knowing

Gala guest speaker Phil Packer's inspirational speech on his physical achievements in spite of his spinal injury met with a standing ovation, and guest comedian (above) Milton Jones kept the audience laughing.

The majority of visitors – unsurprisingly – were from the South East of England and London, but some dedicated international delegates made the journey from Europe by car.



messages have been successfully delivered, with in-built auto acknowledgment, and two-way reply enables users to acknowledge they have read the message – which you cannot do with mobile phones."

Messages that are known to have not been read can then be escalated appropriately, and location messages can help organisations ensure that staff in the field are safe.

An intuitive front-end interface has been designed for this purpose, but the two-way paging can be integrated into command and control systems via XML SOAP protocol.

In October, following work with the Cabinet Office, two-way paging was announced as MTPAS enabled for Cat 1 and Cat 2, providing extra resilience during times of public emergency. "We install the privilege access SIM into the devices for all Cat 1 and 2 organisations, so that they will be included automatically in all pagers." Interestingly, because the SIMs use very little data there are no restrictions in terms of how many SIMs or pagers are used.

"London Ambulance were one of the first to implement two-way paging, and they were awarded Ambulance Trust of the Year award. They have rolled out two-way pagers across the volunteer community to improve their speed and accuracy of response. This allows them to confirm very quickly if individual responders can or cannot attend, and the GPS allows responders to be located within a situation." Feedback following trials have resulted in the addition of an SMS emergency button, which triggers a silent or audible alert, as well as transmits geo-coordinates that can then be displayed on a map. "One of the other features pertains to remote tracking of assets, with a view to control remotely where they are. Lastly, we also looked at location-based services, where a pager is integrated into a mobile phone, so you can track location of staff either by two-way paging or via mobile phone. EDF Energy now uses paging as well as location-based SMS to identify engineers that are near a particular fault."

Excelerate – on a crest of wave

An innovation that enjoyed much attention during the show was Excelerate's new Sherpa Surveillance System, the latest addition to the company's rapid deployable solutions.

"New" is perhaps not the right word, however, as the clever gadget is already in use by around a dozen UK councils, as well as the Met Police, and it is also being deployed as far afield as Vancouver, Australia and South Africa. It was more of a case of "I liked it so much that I bought the company" on the part of Excelerate CEO David Savage, who quickly saw the fit with his business.

The portable Sherpa allows for quick deployment of video surveillance and consists of a unit that climbs up existing

conical and octagonal poles (eg street lighting), wirelessly transmitting images in under five minutes.

"Our core market now have satellite broadband and are asking what else they can do over it, to get the most value. The key driver at the moment is CCTV, and we have firefighters in Kent now able to walk 12k along the Eurotunnel wearing a body worn camera that is transmitting the image to the mouth of the tunnel and back to command. The Sherpa here is temporary, and it will transmit images over COFDM radio back to a peli-case, ICU or HQ using satellite. In essence it is a variation of the tripod-mounted cameras, but with additional benefits as they won't get knocked over whilst extending a perimeter."

Savage can see a number of obvious potential applications, including surveillance during one-off events such as the Olympics (ie the 2,000-mile torch procession), and VIP visits, as well as some not-so-obvious. "Arson investigation teams are interested, because arsonists nearly always go back to the scene to have a look. So if arson is suspected, they can deploy this in the vicinity where the culprit is expected to return."

That Excelerate is currently riding on a crest of a wave is quite apparent. Firebuy has recently selected the company for a major incident equipment framework (see page 7) in three categories, and the North East Hazardous Area Response Team has just received a major boost to its capacity, which includes a new fleet of HART mobile incident command units (Major Incident Response Vehicles). In addition, West Yorkshire has taken delivery of a new incident command unit, as has Gwent Police. "During the last 15 months our order book has increased from £2.4 million to £13.1 million, so based on that and the new activity we are engaged in, we are seeing significant expansion in our business, and this does not include international interest," said Savage, adding that Excelerate will be exhibiting both at APA-ACPO (Manchester), and Interschutz (Leipzig).

Infoterra's SAFEcommand

Infoterra – who recently acquired iMass – introduced SAFEcommand, its new integrated suite of products for emergency services and public safety organisations.

SAFEcommand helps address the evolving challenges faced by public safety and emergency organisations, and integrates all the core data management, mobile and emergency response elements needed to help both "blue light" and homeland security organisations increase their operational effectiveness and service delivery.

According to Infoterra's Andy Kerr: "SAFEcommand helps public safety and emergency organisations deliver on their critical duty of care objectives through the provision of real-time location intelligence for staff and vehicles, integrated operations planning and response, and full mobile data and satellite communications. It also offers access to the latest geospatial data – from in-depth 2D datasets to the industry's highest resolution 3D cityscapes.

Key SAFEcommand benefits include improved access to the latest incident information, faster response times and accurate real-time resource location. SAFEcommand's central system for data consolidation and management also ensures the seamless mobile delivery of critical operational response information.



Excelerate's Sherpa in action.

"London Ambulance were one of the first to implement two-way paging, and they were awarded Ambulance Trust of the Year award. They have rolled out two-way pagers across the volunteer community to improve their speed and accuracy of response."

✉ *Clair Cawley, Marketing Director, PageOne.*



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Holland prepares for the worst

With public safety at the top of any government's agenda, the Dutch Ministry of the Interior realised that a modern public warning system was essential for the safety of its citizens. With a Cell Broadcast System, it found a solution that met all of its requirements.

Founded in 1798, The Ministry of the Interior and Kingdom Relations is one of the 13 ministries that make up the Dutch Central Government and is comprised of over 3,000 civil servants in addition to the Minister and State Secretary. Its activities include upholding the constitution, guaranteeing the rule of law and ensuring public order and safety. The public safety function of the Ministry is carried out by the Directorate of Safety and Security and the Department of National Security, including the National Crisis Centre (NCC). Located in The Hague the NCC has been designed to serve as a national hub for crisis management, ensuring that the country has the capability to react quickly and decisively in the event of large-scale public safety events.

A core function of the NCC is warning the public in the event of disasters and threats to public safety. Prior to 2004 the NCC relied on siren systems, TV and radio broadcasts as channels for public warnings and alerts. Willy Steenbakkers, senior crisis co-ordinator at the NCC describes the situation: "The nature of the threats that impact on the safety of the public have changed rapidly in the 21st century. The Netherlands, along with many

countries in the West, must face up to threats of terrorism, natural disaster and industrial accidents on a scale never seen before, yet our systems for public warning have remained rooted in mid-20th century technologies". The NCC realised that the time had come for an updated approach to public warning.

Steenbakkers continued: "We wanted to approach this project from a people-centric standpoint. We wanted the solution to fit actual needs rather than to choose technology for its own sake. For that reason we conducted an in-depth audit of exactly what our requirements were."

The NCC recognised that for a public warning system to be successful a number of key factors had to be considered. The solution would need to have the ability to provide information on the subject of the alert, rather than just alerting people to an unspecified threat. Sirens work well in alerting a large number of people to the fact that something is happening, but they do not provide information on the nature of the incident or what the appropriate response should be. Unless a person is near a TV or radio broadcasting this information, their response to a siren may actually put them in danger. An example of this

The Netherlands is upgrading its mid-20th technology approach to public warning with a cell broadcast system.

would be in the event of flash flooding where a siren may make people move inside to watch a TV broadcast – the exact opposite of what they should be doing (evacuating the area).

Other requirements for the new public warning system were that it should be real-time, to ensure that the public can be alerted to a disaster as it happens, and robust, so that the system does not fail in the event of large-scale disruption to the national infrastructure. The over-riding requirement however, was that the solution should be able to reach the vast majority of Dutch citizens no matter when they are in the country.

Mobilising public warning

Once the NCC knew what the public warning system should look like, it started to investigate the best approach to take. As mobile phones are now ubiquitous in the Netherlands, it was decided early on that the public warning system should use this as the main communications channel. Steenbakkers commented: “The mobile phone is a truly universal device in the Netherlands. There are nearly 125 phones for every 100 people, according to the ITU. There is no other communications channel that can reach directly to so many people and carry the right amount of information we needed from our public warning system.”

SMS however was ruled out. SMS is a point-to-point technology, meaning that an individual message needs to be sent to each device. This would have slowed down the process of sending messages to a required audience.

SMS is also limited as a solution to public warning as it relies on users registering their phone numbers with the authorities. Steenbakkers explained: “Aside from the obvious privacy concerns with registering a number with the Government, the system would not have been

location-aware. If you registered your phone to your home address and then went on holiday, you would still get any alerts sent to your home area.

“Alternatively, if you were outside your home region and there was a public safety event, you would be totally unaware of it as the alert would only have been sent to users registered in that region. We could have linked the SMS service to a location-based tracker, but we were aware that many members of the public would not want the Government to be able to track their movements in this manner.”

Having abandoned SMS as a solution, the NCC asked the Netherlands’ mobile operators for advice on a text-based solution that could alert members of the public within any given geography, without them needing to opt-in to the service.

The response was clear – the NCC should choose a solution that used a cell broadcast system, as produced by one2many.

one2many’s Cell Broadcast System offers a real-time service of distributing text messages to mobile handsets, specific to their current location.

Where SMS is a service of individual messages, cell broadcast is capable of broadcasting one single message to reach all mobile handsets in an area as small as one radio cell and as big as an entire country. It is fast and operates in real-time: sending a message to millions of handsets takes a matter of seconds.

This provided the NCC with the exact solution it required. Steenbakkers continued: “one2many’s system ticked all the boxes. Mobile phones all come with a cell broadcast channel and it is up to the owners as to whether this capability is turned on or not. This alleviates all privacy concerns.

“Moreover, by broadcasting messages to selected cells, we could achieve a level of flexibility not possible with the alternatives.”

Birmingham City Council introduces Community Alert

Birmingham City Council, the most populated local authority in the UK, has introduced a new Birmingham Community Alert messaging service to warn its residents and workers about emergency incidents from flooding and power failures, to major road closures, health risks and evacuations. The free service, run by the Birmingham Resilience Team, is based on the multi-channel Horizon platform from HTK, the leading UK provider of public mass notification solutions.

Using HTK Horizon’s geographical mapping and multi-channel communications capabilities, the Birmingham Community Alert service automatically sends emergency messages based on postcode area, by email, SMS text, automated voice calls to mobile phone or landlines, pager or fax. Residents sign up for the free service and select their preferred methods of contact. To register for text alerts, they can simply send an SMS to 83118 with the word ALERT followed by a Birmingham postcode. Two further locations can be added such as a work address and a relative or friend.

“Rapid delivery of information to as many people as possible is critical in emergencies to protect and reassure the public and manage the incident,” said Councillor Paul Tilsley, Deputy Leader of Birmingham City Council – whose portfolio covers emergency planning. “HTK Horizon makes it easy for Birmingham residents to stay informed by choosing the best way for them to receive alerts and makes sure that accurate and timely information is

delivered automatically to the people affected.”

“With responsibility for the UK’s second largest city and over one million people, Birmingham City Council is pioneering the delivery of vital public warning and information services,” said Marlon Bowser, CEO, HTK. “HTK Horizon harnesses the latest mapping and communications technologies to provide automated message alerts across the length and breadth of the authority in an instant, day or night.”



The implementation of cell broadcast

In 2007 the NCC launched a large-scale trial of one2Many's Cell Broadcast System in Zeeland. This is an area that has historically been susceptible to large-scale flooding and would benefit greatly from an improved public warning service.

The trial saw 600 mobile handsets, with the cell broadcast channel enabled, handed out to members of the public and businesses in the region. Message alerts were sent out at unexpected times in order to simulate an actual event. The results of the trial were impressive showing that the messages got through to 72-88% of users across the course of the assessment. 80-94% of the members of public used for the trials appreciated that Cell Broadcast was a useful addition to the use of sirens for public warning (the remaining users had their phones switched off when the messages came through). Based on the success of the trial and the exceptionally high user-acceptance level, the NCC decided to move ahead with a full implementation of Cell Broadcast in the Netherlands. The new public warning system is expected to be fully deployed by the close of 2010.

As Steenbakkers pointed out: "The trials of one2many's service

exceeded our expectations and we have found a public warning system that will be of immense benefit to the public. We are currently working with the three major operators in the Netherlands to integrate the platform into their networks and they are as positive about the project as we are. Everyone involved in the deployment of cell broadcast in Holland can see the social benefits of the programme and is fully committed to making it a success."

A test bed for Europe

The Netherlands is leading the way in Europe in its approach to public warning. The Cell Broadcast System it is implementing is being watched closely by a number of countries including Belgium, Sweden, France, the UK, Germany and Poland. The UK is starting to take a stronger role in this area, doing much work to push the standardisation efforts across Europe. The NCC's vision is to see cell broadcast deployed across the EU in order to enable public safety warnings across the entire region. This would mean that Dutch citizens will be alerted to events in any country they happen to be visiting in the EU. "The implementation of cell broadcast across Europe will be a massive step forward for the safety of all Europeans, no matter where they are on the continent."

An iPhone application for local authorities

A new, free application will allow residents to report potholes, graffiti, streetlight failures, uncollected rubbish and other problems directly to responsible council officials, creating a better, faster service, cost savings and cleaner streets.

Lagan Technologies, the Belfast-headquartered technologies firm, is in talks with a number of local authorities in the UK about the launch of trials of its Citizens Connect iPhone application.

Citizens Connect enables local residents to pinpoint nuisances on the move and report them directly to the desktop or mobile device of the council worker charged with resolving the problem. Potholes, broken lamps, missing signage and graffiti are amongst the many things that the application enables residents to report. The camera in the phone takes an image of the problem and a GPS reference is attached to it before it is sent to the local council.

Citizens Connect was launched recently in Boston, Massachusetts, where locals have used it to great effect. Recently, for instance, local residents fed back details of a spate of graffiti incidents to the City of Boston. The team responsible for cleaning up graffiti were alerted direct and despatched cleaners to remove it. Local law enforcement officials can also receive data on incidents overlaid on a map using GIS, creating a guide from which to potentially determine where culprits are likely to strike next. As soon as the request is fulfilled residents receive a confirmation direct to their phone.

The feedback from local residents has been very positive. One local resident commented: "My graffiti picture is going to the dude who's going to fix the graffiti. Directly to the dude! And that feels good. The use of mobile devices to communicate with local councils is something we expect to soar in the years ahead. We already work with 180 local governments worldwide – from Toronto to East Timor," said Des Speed, CEO of Lagan Technologies. "In many cases those governments are looking at ways in which mobile technology can create a closer link between local residents and the people directly responsible for

service delivery."

According to industry analysts Gartner, by 2013 mobile phones will overtake PCs as the most common Web access device worldwide. Gartner estimates that the total number of PCs in use will reach 1.78 billion units in 2013. By 2013, the combined installed base of web-enabled phones will exceed 1.82 billion units.

The application includes the following features:

- Government-branded iPhone application available to citizens as a free download in the iTunes App Store
- available for iPhone and other mobile devices; seamless integration with local authority systems
- intelligent case routing based on report fields and location – getting requests to the right people more quickly and providing authority management with an overview of performance and service delivery.

Speaking at the launch of the service in Boston, Mayor Thomas Menino said: "The Citizens Connect iPhone application is a great example of new urban mechanics. We are using the latest technology to make government even more accessible and more responsive to our constituents. We are excited for residents and visitors to use this application and help us keep Boston beautiful."



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Gayle Guilford, Director of Management Information Systems, **Baltimore Police Department**

Martin Hansen, Director of Information, **Nottinghamshire Constabulary** and Representative, **East Midlands Collaboration**

Xavier Aubry, Chief Executive Officer, **Appear**

Peter Harris, Head of Public Safety, **Arqiva**

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Collaboration at the response stage has long been practised by the emergency services – it's an intrinsic part of emergency resolution. However the introduction of the Civil Contingencies Act (CCA) 2004 has elevated this from best practice to legal obligation. Martin Large, CEO, Steljes, explores how some emergency responders are using collaboration technology to achieve compliance and ultimately save lives.

SMART collaboration

"The ability to view and annotate the same information with commanders at each of the Bronze, Silver and Gold levels greatly improves communication, and ultimately helps us to make better decisions."

▶ Alan House,
Deputy Chief Fire Officer, Hampshire Fire and Rescue.

With the main aim of ensuring that the country is prepared to detect, prevent and respond with speed and certainty to major emergencies, including flooding, health epidemics and terrorist attacks, the CCA presents varying challenges for emergency responders, especially in today's tight fiscal climate.

One of the main focuses of the CCA Enhancement Programme (CCAEP) launched in December 2008 is on improving the standard and consistency of implementation of the CCA regime, seeking to improve local resilience structures and responder engagement in collaborative working. The principal mechanism for local multi-agency co-operation under the Regulations is the Local Resilience Forum (LRF), which strives to cement local-level partnership. Although co-operation and information sharing through meetings, visits, seminars, phone calls and emails are all critical to emergency planning and preparedness, the ability to collaborate effectively in the pressured environment of the response and recovery stage is where technology really deliver results.

Time is a precious commodity in an emergency situation and the quick collection and rapid analysis of intelligent data is crucial to problem resolution. Connecting responders, aggregating knowledge, assimilating complex data and ultimately helping them to make better decisions faster.

Hampshire Fire and Rescue is the largest non-Metropolitan fire and rescue service, covering all 1,600 sq miles of the Hampshire county with 1,600 fire fighters across 51 fire stations. It has two incident command units (ICUs) fitted with collaboration technology from market-leader SMART Technologies. Using the electronic pens or touch screens enables easy manipulation of displayed maps and images; outbuildings can be highlighted, sections

marked out, and icons of fire appliances dragged and dropped into new locations. All information and annotations are time and date stamped and can be saved for use in incident de-briefs. The ICU is directly linked to Command and Control, enabling staff in both locations to see all live jobs, messages sent in, and the location of other vehicles. Even ICUs in remote locations receive full Command and Control and all parties have a complete overview of available resources in Hampshire and neighbouring counties. Ultimately, if Command and Control was disabled in a disaster situation, full operations and management could be carried out from the ICU.

Deputy Chief Fire Officer, Alan House (who retired as we went to press), believes that this collaboration technology is key to sharing information and enhanced coordination, both central components of the Civil Contingencies Act.

"When large scale incidents involving a multi-agency response occur, efficient communication between agencies is vital. SMART Boards and Bridgit conferencing software are ideal for such incidents; the boards can be linked up to each other and assist the incident commander to inform the multi-agency commanders and provide complex data such as GIS mapping or imaging software into the decision making processes. Operational information can easily be shared within the multi-agency command chain. The ability to view and annotate the same information with commanders at each of the Bronze, Silver and Gold levels greatly improves communication, and ultimately helps us to make better decisions."

Effective information management is dependant upon the development of a Commonly Recognised Information Picture (CRIP). The transmission and collation of high volumes of information from multiple sources is central to this, enabling emergency responders to collectively react in

Above: SMART inside Hampshire FRS's Incident Command Unit.

real time to the changing nature of an incident.

Birmingham East and North Primary Care Trust (PCT), one of the largest PCTs in the country, now uses SMART technology for emergency planning. A major flooding incident in January 2009 involving a burst water main affected nearly 96 healthcare practices and a review of the emergency response process led to installation of SMART's collaboration technology.

Reviewing, learning and training are also critical to the CCAEP. For Birmingham East and North PCT, recording information that comes into the control room now happens at the click of a button using Notebook 10. Whereas before everything had to be typed up after the incident from photographs taken of information on white boards, now all information and annotations are saved in real time, automatically time and date stamped and can be saved for use in incident de-briefs or audits.

Voluntary organisations have a critical role to play in emergency response and the CCAEP is investigating this area to ensure their contribution is recognised and used where appropriate.

As a major responder, the RSPCA adopts the same Gold, Silver and Bronze Command and Control system used by the Police and Fire Service. After several incidences of widespread flooding, the organisation recognised the need for a properly equipped major incident room at the West Sussex HQ. Communication and liaison officer Tony Woodley was tasked with transforming an empty meeting room so that it was fit for purpose. "In the case of a major incident affecting more than one of the RSPCA's five regions, the ability to rapidly assimilate information and respond in a strategic, co-ordinated and well-informed manner relies heavily on the mobilisation of a slick command and control process."

The Lake District was hard hit by flooding at the end of November 2009, with more than one foot of rain falling in 24 hours, 200 people rescued from Cockermouth and around 1,000 homes flooded. In its biggest-ever rescue operation, the RSPCA deployed 60 of the charity's 80 swift water responders across Cumbria to offer rescue assistance to both people and their animals. The teams – about 20% of the RSPCA's field staff – worked with emergency services including going door-to-door with the army in Cockermouth, as well as offering help to vulnerable people and their animals around in areas such as Workington, Kendal and Keswick. Around 50 animal rescues were carried out. "The SMART Board interactive whiteboard in our major incident room was central to strategic and local planning, and key to the deployment of our rescue staff," says Tony. "Using applications such as Google Earth and OS mapping in conjunction with Notebook software, the interactive boards proved invaluable to the Gold command team, which used the boards to keep track of staff and equipment. The ability to electronically record the strategy and mapping, and then pass this, instantaneously, to our Silver and Bronze commanders also proved to be of enormous benefit."

The most cost effective investments have multiple applications and although the technology is proving revolutionary for command and control communications, the benefits of this technology permeate to many other areas of the fire operation.



SMART used for training purposes.

Taking training at Berkshire FRS as an example; if all fire fighters from the ten, 24-hour manned fire stations, with four watches per station, need to be trained on a new piece of equipment, it would take 40 one- to two-hour sessions. Separate training sessions would also have to be conducted for the nine part-time stations, as well as potentially another five to 10 sessions for people who are on leave. If the training was on health and safety, then each session could take up to two days.

Interactive technology enables the training to be delivered to more than one site at the same time and Berkshire FRS estimates that this increased efficiency equates to a time saving of as much as 50%, as well as cutting travel costs and reducing environmental impact. Critically, it enables the sharing of knowledge in a realistic, interactive environment and the ability to continuously monitor the progress of trainees, ensuring that they are taking in and understanding the training. The instructor can receive instant and valuable feedback, proving and improving the quality of training at the time of delivery.

Although the fire service is not centrally controlled, for subjects in which every fire officer needs to be trained, the TETRA radio for example, a nationwide interactive infrastructure would allow anyone, anywhere in the UK to interact with a training event that is taking place at the FRS HQ, thereby reducing the number of instructors needed and improving the quality and consistency of training.

"Within the emergency services, technology that can make a difference doesn't necessarily have to involve huge budgets," explains Alan House. "We've already gained tremendous benefits from using SMART's interactive technologies and they've become an integral part of how we work. We've found that they provide a faster build-up of a COP and reduce instances of misunderstanding between those involved in the management of an incident which results in faster decision-making and more effective containment of an incident."

The ability to collate information efficiently directly correlates with the speedier resolution of an incident and ultimately the saving of lives. Maximising the positive impact of this information depends upon the speed with which it can be shared with the right people, so that the right decision can be made, which is why SMART's technology is proving invaluable for effective civil contingency response.



Common approach: unstoppable?

Siemens Enterprise Communications (SEN Group) recently organised a round table discussion to examine “next generation” public services and the type of infrastructure networks that would underpin them. Here, Craig Pollard, Head of Criminal Justice & Emergency Services at SEN Group, examines these trends and how they affect the police and emergency services.



“There is clear evidence that industry providers are becoming more flexible, seeking to understand the operational, compliance and budgetary pressures on the police.”

The logic of Government IT strategy is moving towards common standards, processes, and infrastructure. This is gaining momentum across Government and its partners through programmes such as the Public Sector Network (PSN) and the G-Cloud programme Government Application Store (G-AS). These are rational approaches that promise consolidation and virtualisation of ICT infrastructures and networks to streamline operations and service delivery. But how will these developments affect the particular needs of police forces and the emergency services? Where will savings come from and how will procurement and budgetary questions be managed?

Three drivers towards a common approach

A number of political, financial and operational factors are coming together to drive common approaches to government and police operations as well as the infrastructures and the business processes that underpin them. First, whichever party wins the election, the government of the day clearly sees larger scale organisations as the optimum size for delivering services to the community with economies of scale – a clear example being the drive towards unitary authorities in

local government. This drive towards larger organisational units has overshadowed the continued enthusiasm for multiple collaborations or “shared services”. These shared models have been difficult to realise because different organisations have struggled to agree a coherent strategy before even reaching the detail of sharing processes.

The second factor is that most public organisations and police forces face severe budget cuts. Local chiefs will demand “more with less” from their staff and ICT systems as never before. This rationalisation is also unavoidable because local government and the police are being supervised and monitored by the Audit Commission and HMIC respectively on their adoption of common standards, systems efficiencies and collaboration – at a regional or national level.

Third, even with the advent of strategies like G-Cloud, government and its partners are moving towards a single infrastructure approach based on VoIP or unified communications. Through collaboration and progress on common standards among public sector ICT organisations, local services, networks and applications are being shared by public organisations over a Wide Area Network (WAN): so “critical mass”, and economies

of scale are being achieved. For example, in the future we might see the UK Border Agency and the police collaborating with the Department for Work & Pensions (DWP) and relevant local authorities on common systems. We are certainly starting to see neighbouring police forces' ICT teams sensibly consolidating communications networks to build system resilience and capacity for emergencies.

Services and efficiency

The police service is also seeing specific factors driving common approaches to its technology systems. One of the biggest changes was the Bichard Inquiry's call for a "national IT system" for police intelligence leading to the IMPACT Programme while the National Police Improvement Agency (NPIA) was set up to drive national-level system improvements.

The development of a Police National Database (PND) is the one of the key standardisation deliverables but a difficult task for various reasons. First, it demanded national standards for processes and software applications. Second, despite individual forces having historically procured ICT systems on an individual basis they have made valuable progress with major investments in technology which should not be sacrificed. Third, budgetary constraints have reduced the police service's room for manoeuvre when looking to innovate and streamline operations. Despite this demanding task, progress on the PND has been encouraging: as senior personnel have already noted, the database is an "unstoppable train on track to a good destination."

The more general drive towards ICT standardisation is also having a profound impact on police forces' operations. The PSN is gradually helping local forces and their public sector partners to address the difficult balance between improving operational standards, sharing information securely and driving efficiencies.

With the NPIA's ISIS (information systems improvement strategy) now shaping forces' intelligence co-ordination needs and PSN momentum towards joined-up infrastructures gathering, there is a clear shift among police forces towards common procurement of data and voice networks. There is also a move towards consolidation, especially in software application delivery. The clear underlying philosophy is now: "do it once, extract the value many times".

With this new dawn of NPIA, G-Cloud and huge pressure to make budgets go further, what is the IT industry's response? In the face of these changes, there is a willingness among the main communications providers to rethink how they engage with the police and other public bodies. There is clear evidence that industry providers are becoming more flexible, seeking to understand the operational, compliance and budgetary pressures on the police. As a result, they are building better mutually beneficial partnerships with the NPIA and local forces. Providers are working with forces to identify beneficial operational and financial outcomes, particularly over the sector's longer term spending cycles.

As a result, providers are starting to deliver new types of managed service ICT programmes that ensure systems

have 24/7 resilience and secure information access protocols while reducing cost of service and providing the systems integration skills that local forces need to knit together new and existing networks and software applications. Crucially, as outsourced ICT services, these programmes are able to deliver cutting edge technology from operating expenditure rather than capital budgets.

A number of recent ICT procurements led by the NPIA involve communications providers that accept risk, make necessary technology investments and provide technology integration and support. They are 'service enablers' supporting joined up thinking, not only on the infrastructure, devices and applications one would expect, but also in identifying mutual outcomes, as well as designing and financing the ICT programmes that will make them happen.

Police IAM as a managed service

Under the aegis of the NPIA, UK police forces are implementing a common nation-wide identity-based access capability through which National Applications such as PND will be used. Key elements of this IAM strategy are being delivered through managed service agreements: the IAM procurement includes two enterprise-wide software programmes for identity product and smart card management products with service and economies of scale benefits.

The IAM CS will allow officers and support staff to securely access police information systems across the country. When implemented within a force a single user will be able to access different national police systems potentially from any location. This will reduce staff time spent returning to local stations to access information and thereby increases time spent on front line policing. Benefits will also include secure exchange of electronic data between forces and the criminal justice system and savings on time and costs in administrative areas such as password resetting. The programme will help meet the need for access of the right information with enhanced security protocols, whether in-house or cloud-based systems. The licences procured by the NPIA for different police forces will yield considerable cost savings. Fourteen different forces are participating in the new IAM managed service infrastructure while others are considering adopting the approach, or deploying solutions locally leveraging centrally provided resource.

A common approach?

Police and emergency services are consolidating their communications infrastructures and adopting common protocols for communications, mobile devices and sharing data. Many forces are also looking to gain further capabilities from ICT investments they have made. As one delegate to our public sector round table recently observed: "There is 'enough infrastructure' now: we need VPNs and other infrastructures to deliver services and ensure sound data exchange." National procurement, common voice and data platforms and new engagement with key service providers will all play their role in police and emergency services meeting the operational, compliance and budgetary challenges of the next few years.

An ATEX future for Ambulance



The development of ATmosphere EXplosive (ATEX) compliant TETRA radios – the industry standard that certifies devices as “intrinsically safe” to operate in hazardous areas where dust and explosion are risk factors – has seen significant growth in recent years. Indeed Motorola anticipates demand for ATEX TETRA radios to grow by approximately 20 per cent, writes Director (Business & Strategy Global TETRA) Heidi Hattendorf.



The design of Motorola’s ATEX handheld devices reflects the fundamental issues faced in these “warm zone” environments, such as the need for fast access to vital information, simple operation, extended battery life and high quality, reliable radios. It is vital emergency service personnel are equipped with the right device for the demanding and potentially dangerous situations they encounter. Motorola recently added the MTP850Ex portable TETRA terminal to its portfolio of ATEX radios based on this understanding. This device provides high quality communication with

wide-ranging user safety and class leading ATEX & IECEx specifications, allowing use when working in potentially hazardous environments.

The extremely robust MTP850Ex terminal endured a rigorous testing process to ensure superior quality and reliability under the most extreme circumstances. The ATEX TETRA terminals are designed to be intuitive and easy to use in challenging locations and include a host of state of the art features, including an integrated GPS receiver that can locate personnel, improving user safety and resource management, as well as an internal “man down” alert. It also has IP65 (Ingress Protection Code) certification due to the high level of protection it provides when operating in wet environments without having a harmful effect on its operation.

This internationally recognised standard is an industry first for a TETRA ATEX radio, which also offers high protection against explosive gas and dust. By understanding the end-user’s day-to-day needs and expectations, we develop “intrinsically safe” radios that provide intuitive, instinctive operation. In the UK, the ATEX MTP850Ex plays a crucial part in helping thousands of Hazardous Area Response Team (HART) personnel to complete important life-saving tasks by providing crystal clear, effective communication.

Looking to the future, what could make a considerable difference is the deployment of Tetra Enhanced Data Services (TEDS), which provides the same cost-efficient coverage as TETRA but with wideband data speeds. As an extension to the TETRA standard, it can be deployed as an upgrade to current systems. TEDS enables enhanced information access and data input across very wide areas.

Motorola recently restructured to meet the challenges that lie ahead and its new group, Enterprise Mobility Solutions, brings the knowledge of delivering mobile computing, networks, devices and applications to play in public safety.

Second nature technology

Motorola focusses on several core design themes to produce technology that is second nature:

- Devices are operated by a simple, rotary dial that provides fast and instinctive access to key applications. Voice calls are clear thanks to the integration of special microphones. And all buttons are large to ensure “gloveability”
- Safety features include clear emergency buttons to summon help and technology that senses when a user may have fallen, or stopped moving, so as to automatically generate an alarm in control rooms.
- Tough and portable: designed to weather the rough and tumble of the industrial workplace, devices are extremely tough and built to survive extremes of temperature.
- Radios must provide a broad range of accessories such as headsets, belt clips, earphones and one-touch microphones to enable users to select a set-up that provides optimum comfort as they fulfil their tasks.
- GPS capabilities provide another level of safeguards. For instance, if a user moves outside a pre-arranged safe boundary the alarm is automatically raised. GPS also provides an overview of operations to dispatch teams. Control officers can understand what personnel they have where, what skills and capabilities are available within those teams, and how resources can best be deployed.

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Plugging the gaps

Would the events surrounding the Stockwell shooting have turned out differently with the correct application of technology? In this first part of a new series looking at technology in hindsight, we concentrate on the Stockwell shooting and the gaps that could have been plugged with a working digital recording solution. BAPCO Journal speaks with Paul Collins (Director Business Development Public Safety) from CyberTech, a provider of resilient digital recording solutions, about the report by the IPCC, Stockwell One Investigation into the shooting of Jean Charles de Menezes at Stockwell underground station on 22 July 2005.

What gaps did you identify in the report?

Voice recording products could have helped greatly in the post incident analysis in particular on who said what to whom. There would have been full traceability. One of the first concerns raised in the IPCC Stockwell One report was that the Designated Senior Officer (DICK) was late to the strategic briefing chaired by Commander MCDOWALL.

Had the briefing room been properly equipped then the briefing would have been recorded and DICK would have known what was said.

It also turned out that although TETRA communications were being recorded, the radio communications of the surveillance teams weren't. Surveillance radios were in use that may not have been TETRA radios.

What would have been the solution?

All voice communications should have been recorded – not only the ones going on inside the command room, but also the ones between the command room and the relevant people involved in the operations on the outside. To help on this task nowadays it is possible to wear simple wireless microphones, such as the ones you can wear on a lapel. Some forces in the UK already operate with that capability.

Additionally, the recordings could have been used to compile the decision logs.

But decision logs were filled out, weren't they?

Yes, but as the Designated Senior Officer DICK told IPCC

investigators, her decision log was not completed until 12 hours after the incident – and that was done by relying on a mixture of memory and brief loggist notes. Not only this leaves the decision log open to interpretation, but also DICK herself could have forgotten relevant details.

A recording solution, which time stamps all recordings, helps in two respects. Firstly it makes people think about their decisions, and secondly it backs up their decisions during post incident analysis.

Generally, recording solutions are not going to change what happens in an incident, although it is common knowledge that some people can behave differently if they know that they are being recorded. However the main reason for having all communications recorded is traceability: it protects officers as well as their targets during enquiries.

Should recording solutions be made mandatory then?

Yes. They are already mandatory in some of the markets we work in, such as the financial markets. Here, brokers use phones for trading, but the FSA stipulates that all trades have to be recorded. We have developed powerful solutions specifically for this market to help financial organisations achieve FSA compliance.

I would see the police going the same way. Recording solutions may not directly save lives, but they can improve processes in further incidents as well as minimise room for misinformation.

On 14 March 2006, the IPCC announced that the first part of the inquiry, known as "Stockwell 1" had been completed and recommendations were passed on to the Metropolitan Police Authority and Crown Prosecution Service, but the report could not be made public until all legal processes had concluded. The report was published on 8 November 2007.

Excerpts from the IPCC Stockwell One report

Command and control: Concern (2)

"Despite being appointed as the Designated Senior Officer, the strategic briefing chaired by Commander McDowall commenced before Commander Dick's arrival due to inaccurate information being provided to her regarding the location of where the briefing was to be held."

Concern (3)

"No formal recording was made of any of the briefings prior to the deployment of firearms and surveillance officers. Thereafter there was no audio recordings of what was communicated within the Operations Room. Such recordings would have provided an audit trail regarding the information that was received by the room and the decisions that were then transmitted."

Recommendation HMIC

"To review existing practice to ensure that at corporate level robust and appropriate facilities and mechanisms exist to maintain the effective command and control of future operations of a similar nature.

"Particular attention should be paid to ensuring that key briefings, strategic and tactical decisions are fully recorded or documented and in any event capable of audit."

Concern (10)

"The completion of the supplementary surveillance log has been proved to involve alterations which changed the meaning of the entry."

Recommendation HMIC

"To review existing policy and practice to ensure that at a corporate level robust facilities and processes exist to demonstrate the integrity of evidence gathered during the course of surveillance operations. Particular attention should be paid to the continued utility of surveillance logs."

The structure and management of communications (20.98)

"The very fact that there was no recording of the communications from SO12 to Room 1600 has not assisted the officers in confirming details of the instructions given during the IPCC investigation."

20.100

"Commander Dick during her interview with the IPCC investigators stated that her decision log was accurate, albeit, it was not completed until 12 hours after the incident. She stated that she relied on her memory, loggist notes and CLIO log. The loggist notes and CLIO log are very brief."

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