

# **British Association of Public Safety Communication Officers (BAPCO) Article**

## **Radio Links: helping people communicate**

This paper comprises three papers published by BAPCO and is included here for the information of colleagues visiting the ISCPP radio links web site.

The use of two-way radio communication to reduce incidents of crime, particularly within the retail environment, is now well established in towns and cities across the United Kingdom. Retail staff, security personnel and police officers use these systems, which are called radio links. Participants have small, hand held and inexpensive radios, which share a common frequency. The members of the radio link speak to and listen out for each other and use the system to report incidents of criminal behaviour against themselves and others and where necessary refer them to the police. Evaluations of these schemes within retailing have shown them to be an effective means of responding to the problems of crime and nuisance. The research indicates that radio links provide cost effective crime prevention benefits, primarily through a decrease in levels of criminal victimisation, a reduction in incidents of personal violence and increased perceptions of safety.

Building upon the success of radio links within retailing, the concept has been extended to operate in other environments including local authority staff, employees and residential areas. The latter systems are known as CATCH schemes – Community Action Tackling Crime & Harassment – and are based upon local residents using simple inexpensive radios to talk to and reassure each other. This first article considers the development of retail radio link schemes and its use in Wolverhampton.

## **Retail Radio Links: historical perspective and case study**

This case study of radio links began with an incident during the autumn of 1991, when a violent thief travelled from Birmingham to Wolverhampton, West Midlands and stole clothing from a store. The thief, confronted by the store detective assaulted him and ran off. The store detective, who was by now on his own and operating without the knowledge of any of his colleagues, other retail security staff or the police, pursued him.

The thief was eventually cornered on a bus and as a result of telephone calls from local shops and a message from the bus company the police were informed and following a further violent struggle the thief was overpowered and arrested. The inability of the store detective to communicate with anyone was in stark contrast to the police officers who patrolled the town centre, for should a similar incident have occurred involving the police they would have used their personal radio to summon help. It was clear that there was no reason for retailers not to enjoy such similar benefits. Following representations by the police, the Wolverhampton Chamber of Commerce secured funding from the Home Office Safer Cities Project to purchase a radio base station and aerial.

Individual stores purchased their own radios with the system, entitled 'Retail Radio Link', being launched by the then Chief Constable of the West Midlands Police in December 1992. A 'Radio Link' has been defined as, 'a radio communication system linking members together, ideally with the police'. (Wright and Gibson, 1995) Initially, the system was used exclusively to tackle incidents of intimidation of retail staff by thieves and their associates. It quickly became obvious that the ability to forewarn retail staff and security personnel of the exact location and description of thieves in the town centre was a major factor in achieving joint staff and police responses to disrupt any criminal activity.

The Christmas trading period of 1992 also led to an unforeseen expansion in the use of the retail radio. A number of lost children were being quickly found and reunited with their parents. The full impact of the use of retail radio for this purpose was not appreciated until 1993 with the tragic case of Jamie Bulger. By the early part of 1993 the benefits of retail radio were being widely publicised, with Coventry then Birmingham introducing the same system. In the Metropolitan Police area some of the earliest schemes were introduced in Ilford, Croydon and Woolwich. It was reported in December 1994 that in Ilford one major store, over a three-month period, had saved over £10,000 per week, after having purchased one radio at a cost of £300. (O'Brien, 1994)

In Wolverhampton retail radio continued to develop and a number of interesting features became evident. The reporting of crime incidents became more professional both through participants increased familiarity with the system and post incident debriefing by the police. This increased professionalism saw stores calling for the support of other security staff, CCTV systems and police in affecting arrests or deterring criminals. An additional benefit was that retail staff gained precise intelligence about thieves, for example what clothing they had on that day and with whom they were associating.

This intelligence led to a most useful interface between CCTV and radio link with the ability to monitor thief's activities and co-ordinate arrests following surveillance. The relationship between CCTV and retail radio was explored in a Home Office report published in 1994. The report whilst identifying the benefits through sharing information between retailers and the police and alerting CCTV operators to incidents, also reported upon the 'great co-operation and team spirit that a radio link system can create'. (Edwards and Tilley, 1995)

It became apparent that the participants in the radio link, retail staff, security personnel and police officers, were finding uses for the system beyond those for which it was originally conceived. This was most vividly illustrated in April 1993, when the day before the terrorist attack at Bishopsgate, London a coded bomb warning was received in Wolverhampton. The radio link provided the police with the ability to immediately forewarn large numbers of stores, the two shopping centres and the majority of retail security personnel about the risk they faced. The police gave precise details of the nature of the threat, its exact location and the time limit within which the evacuation had to be achieved. The, small number of police officers within the town were assisted by security personnel, public address systems and staff with retail radio.

These resources, co-ordinated by the police, evacuated the town centre within thirty minutes. Eventually the town centre was declared safe with the recovery phase again being organised by the radio link. Managers and security staff were called to the cordons and escorted to their stores by police search teams. The total evacuation of the town centre was achieved without loss or injury. There has been some research conducted into the development and effectiveness of retail radio primarily centred on the effect of the system upon users. Leicester University, Centre, undertook an in-depth study of an individual system in Leicester City Centre 1995 for the Study of Public Order, (CSPO) on behalf of The Burton Group PLC. (Beck and Willis, 1995) The research found that in general staff perceptions were very positive with the major benefits being identified as, enhanced information exchange between participants and direct access to the police with some 60% of staff reporting being less concerned about crime. This finding is particularly important not only because it is a feature reported by radio users across the differing systems but also because of the reported link between fear of crime and its adverse effect on health. In a study of the effects of crime upon health it was found that,

‘The effects of the fear of crime, rather than crime itself, on the health of individuals and communities, has been largely underestimated. In particular the effect of incivilities on well being is not well recognised.’ (McCabe and Raine, 1997.)

The CSPO survey included interviews with six ‘City Centre Unit’ police officers, which also found they were very positive about the scheme. The advantages identified by the police officers were: increased co-operation and information exchange between the police and retailers; more arrests and recovering more stolen property; reduction in fear of crime and response times to incidents, with the system acting as a good deterrent. The officers also identified a number of disadvantages which were: having to carry another radio, (their own police radio and the retail radio); retailers assuming the police were only there to deal with their problems and retailers misusing the system by not using the telephone to summons a police officer. In addition, officers identified retailers not following radio procedures and their becoming ‘*too accessible*’ (authors emphasis) as problematic. The executive summary of the report identified the radio as being a ‘reassuring symbol’ within the store reducing fear of crime amongst staff with retail radio representing a ‘beneficial and low cost addition to store security’. (Beck and Willis, 1995)

The staff perceptions of the role of CCTV and retail radio was again subject of a study in 1995 by Leicester University’s Centre for the Study of Public Order, on behalf of Next Retail Ltd. This study made a comparison between staff perceptions of personal safety between users and non-users of retail radio. It found that whereas 57% of non users believed the radio link would increase their perception of safety, in reality 91% of participants reported an actual rise in staff feelings of well being. The grounds given for this were cited as being a direct link and back up from the police in particular. It noted that as ‘Next, who employ a large proportion of women, the safety aspect must be of paramount importance’, with all stores with retail radio being positive in their responses. It was again highlighted that the ready flow of intelligence on criminals was considered to be of particular benefit, with one respondent being quoted as saying;

‘... we get to know who the known groups are now and we prevent them from entering the store. It has reduced crime.’ (Kinsley and Neal, 1995)

Consideration of the research reveals that retail radio increases staff’s awareness of crime, even to the extent of identifying groups or individual criminals within the vicinity of a store. It would be logical to conclude that this would increase staff’s fear of crime. However, use of a radio link appears to increase their willingness to tackle crime, even to the extent of preventing criminals entering the store. This appears to be one of the more significant benefits to retailers, security staff and police working together through using two-way communication. The rapid expansion of retail radio led to consideration of the management, operation and future development of this and other radio communication systems, by those police officers involved in radio links.

As a result of these concerns and deliberations an application was submitted to the Home Office Police Research Group for funding to research the concept of radio links from a police perspective. The application was successful and in 1994 officers visited a number of towns and cities and interviewed both retailers and police radio link users. The research identified similar results to the two CSPO studies for example 48% of staff reported a reduction in their fear of crime. (Wright and Gibson, 1995) Perhaps one of the most significant discoveries of the research was that retail radio links had existed since 1980 in Great Yarmouth and Norwich and had remained as valid and successful in 1994 as the day they were launched. The difference between the longevity of radio links and the short-lived pager systems was considered. Although no specific research has been conducted to test the effectiveness of paging systems as against retail radio it is thought that the obvious difference between the two systems is that radios allow two-way communications.

This fundamental advantage of radios over pagers, especially in cases of personal violence, is considered to be the main reason as to why radio links have replaced paging systems in town centres. The report included the results of two small studies undertaken in Wolverhampton by the Home Office Safer Cities Project and the Town Centre Association. These showed that some 68% of retailers reported a reduction in stock losses following introduction of the retail radio. In addition 44% of staff reported a reduction in their fear of crime, with one store reporting a 23% reduction in stock loss equating to a saving of £60,000 per annum. This was achieved through the purchase of two radios at a cost of £700, which are still working some six years later. The cost of an average retail radio is less than £400 with the base station and aerial costing about £3,000.

## **Conclusion**

The widespread use of radio communication in town and city centres has been the subject of limited research to date and yet each day literally thousands of retail staff utilise such systems to protect and reassure themselves, their colleagues and the public. Future developments of retail radio will probably be based around linking different systems and full time monitoring, not just to address crime, such as travelling criminals, but also major incidents, in particular terrorism.

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## **BAPCO Article No. 2**

### **Radio Links: helping people communicate**

#### **Introduction**

In the first article I provided a case study of the introduction of a retail radio link in Wolverhampton and highlighted the results of the limited research undertaken to evaluate the effectiveness of these systems. In this, the second of three articles exploring the development of radio links, the use of such systems by other groups is explained. The final system is one, which BAPCO members may not usually be involved with, but, as I content in the final paper, the future of communication is dependant upon establishing the means and rationale for people to talk to one another.

#### **Community Radio Link**

The close involvement of the local authority, especially the Emergency Planning Officer, in the evacuation of Wolverhampton city centre in 1993 led to a steady increase in the number of council staff, within the city centre who held retail radios. At the same time police officers in Coventry began to be approached by a number of non-retailers such as the Cathedral and University staff, asking to be allowed to join retail radio. Discussions between the police in Wolverhampton and Coventry about these issues confirmed the need for a separate radio link, which could be used by public and voluntary sector employees across a wider area, such as a Borough or County. This second system was named 'Community Radio Link' to reflect the nature of its membership.

Two main difficulties immediately became apparent, firstly who would assume responsibility for monitoring this 24-hour system and secondly how would it be interfaced with the police? In Wolverhampton the solution to both problems was found in locating the monitoring facility for the community radio within the council's central control room operated by the housing department. This room operated 24 hours a day, staffed by experienced personnel, who where used to monitoring similar communications systems, responding to calls for help and dealing with the public and emergency services.

The local police control room provided emergency contact telephone numbers and agreed to have both a retail and community radio thus creating additional links with the local authority. The technology utilised in the control room and individual radios was significantly more advanced than the retail radio. The community radios have an individual code or identity and personal attack buttons. This is a facility where the radios can activate an alarm alert in the control room which identifies to the operator which participant is in need of help. They also have a 'live mike' facility where the radio microphone remains open for a few seconds after the activation of the personal attack facility even if the transmit button is not depressed. This allows the control room to hear what is being said or what is happening at the time of alarm activation. This facility acts to confirm or verify personal attack activation. The individual radios can be pre-programmed to prevent any audible tones being generated at the time of alarm activation. This is an important feature as in the case of personal attack or a hostage situation such audible tones could escalate the offender's response.

The community radio link also has a telephone interconnect facility. This is operated through the control room, to maintain the systems integrity and prevent abuses, and allows a telephone caller to communicate with an individual or group of radios. Telephone interconnect also allows for individual radios, again through the control room, to link back to a telephone line. The radios also have the ability to select from a large menu of functions, a number of predetermined messages, which are sent in short bursts of data, for example the radio users can book on or off the system. Since its inception the community radio link has continued to be used in Wolverhampton and works alongside the retail radio link.

### **Business Radio Link**

The involvement of a large number of security personnel in retail radio and the absence of any similar system to assist other commercial and business users led to consideration of a third radio link. This was aimed at reducing incidents of commercial and industrial crime whilst offering the opportunity of creating a unique operational link between the police and security industry. This system known as 'Business Radio Link' also faced the same problems of monitoring and interface with the police.

The Home Office Safer Cities Project in Wolverhampton was again involved in these early discussions and was able to secure seed funding for a pilot system to operate across the Black Country of the West Midlands. The major shopping centre in Wolverhampton, at that time, employed contract staff from Group 4 who were actively involved in the retail radio. Through their discussions with a senior representative from Group 4 showed an active level of interest in developing the project. It was decided that to co-ordinate the project and provide the requisite level of representation the British Security Industry Association would be approached to manage the project. Following meetings with the then membership liaison manager, additional funding was secured from within the security industry and a series of presentations by the police were made to interested parties. A BSIA member company, Burns Security, whose Midlands control room was based in the Black Country, agreed to allow the independent business radio to be located in a separate office in their building.

A further grant of money was secured from the Department of the Environment and the then Home Office Minister of State, Mr David MacLean, launched the project in January 1995. The original concept was based upon the local police divisional control rooms, now no longer in existence in the West Midlands Police force area, having a 'desk top' radio networked to the business radio control room allowing them to both receive messages, especially radio alarm activation's and disseminate information. It was envisaged that in the same way as retail radio operates, the police would be able to receive and pass to the security personnel and other radio users, information about crimes in the Black Country. For business radio it was envisaged that the members, such as petrol stations, could in turn report sightings of vehicles and other incidents immediately to the local police stations. The business radio control room would act as a filter between participants and the police, prioritising calls and referring to the police the best available witness to any incident.

The project enjoyed considerable interest from a wide variety of potential participants such as; out of town retailers; security companies; vending machine companies; petrol retailers and financial institutions. Unfortunately for a variety of commercial reasons the level of interest wasn't translated into the purchase of radios, with the system being forced to close through lack of funding. The last manager of business radio, Mr Mike Olds, speaking in February 1996, attributed the scheme failure to, the absence of a full time sales person, the cost of radios and subscription. In addition he spoke about the, '...lack of a coherent marketing strategy and adequate resources'.

### **Community Action Tackling Crime & Harassment (CATCH)**

The development of a de-regulated, low cost radio has assisted in facilitating the introduction of residential based radio links entitled, Community Action Tackling Crime & Harassment, (CATCH). The radios are much cheaper, some costing around £50, than those used in the other radio link schemes. In addition there is no ongoing costs involved regards radio licence fees or call charges. The first CATCH scheme was originally introduced on a housing estate in West Bromwich in May 1998. The Lyng Lane Tenants and Residents Association, council housing department and local shopkeepers joined with the local police to develop the scheme, which received funding from the West Midlands Police Authority, Sandwell Council and local shopkeepers. The system was used by residents to rapidly disseminate information about crime and disorder on the estate and seek an early police response to any incidents. The network was found to address users fear of crime through raising the confidence of participants who are quickly able to identify offenders, in some cases their neighbours.

In October 2000, at the National Neighbourhood Watch Association conference in Nottingham, the then Home Secretary introduced the concept of radio links for Neighbourhood Watch. Anecdotal evidence has indicated that there is sustained interest in the use of radio within Neighbourhood Watch areas and that such systems, at the time of writing, are being introduced across the country.

## **CATCH: the research**

There has been some limited research into the use of residential radios and it is important to stress that the involvement of myself both as the researcher and in the development of the two schemes may have influenced the responses. Analysis of these findings, conducted in 1999, has helped inform practice when establishing such networks in residential areas and is therefore relevant to current community safety activity. The research comprised semi-structured interviews with residents from two inner city estates, Lyng Lane and Great Bridge, Sandwell, West Midlands, both of which are inner city areas with a high crime profile. The following is a summary of resident's responses to the interviews together with observations made upon the practical implications of introducing a CATCH scheme in an inner city environment.

### ***Resident's description of CATCH***

The residents were asked to describe CATCH, and explain how it works. A comparison between CATCH and Neighbourhood Watch was made with one of the Lyng Lane residents having regular contact with the police Watch support officer and circulating crime and suspect information to scheme members. There was a similar response from both Lyng Lane and Great Bridge residents who spoke of the spread of members across the estate '...each in a prime situation...' and '...people at various locations on the estate...' respectively. The same two residents also specified that the scheme involved participants being engaged in the surveillance of activity on the estate, '...observing...' and '...watching...' respectively.

### ***The impact of CATCH on resident's perceptions of crime***

The responses also highlight some interesting perceptions with one resident believing that whilst CATCH has suppressed criminal or opportunistic activity it hasn't been wholly prevented. There are again similarities between the responses of residents on both estates with participants believing that local people, not involved in the schemes, are aware of CATCH. What is of interest however is that a Lyng Lane resident believes this awareness deters the criminal whilst a Great Bridge resident believes it brings confidence to people. On closer examination both answers may amount to the same response.

### ***The influence of CATCH on resident's behaviour***

The responses from the majority of Great Bridge residents to this question indicated that there has been no change in their personal behaviour since CATCH was introduced. What is of interest is one resident who believes from their experience that CATCH has benefited not just the scheme members but also positively affected the behaviour of '...problem people'. Residents make reference later to a fear of retribution. This single response may indicate that whilst this fear is real for some residents it may not be universal and that CATCH is seen to work in favour of improving social contact between both 'problem' residents on the estate and others. The responses to this question by the Lyng Lane residents also indicates their behaviour hadn't changed but the majority again emphasise the raising of awareness.

One resident reported their personal esteem and confidence has been positively affected by the extent of public contact. The responsibility of participating in CATCH was seen quite unequivocally as being of personal benefit to this resident.

### ***The impact of CATCH on relationships with other residents***

The Lyng Lane residents showed through their responses a greater willingness to engage, with other tenants on the estate. The comments of two residents indicate they feel a level of responsibility for other people living on the estate. One resident stated quite explicitly that they feel ‘...related to...’ and ‘...protective of...’ other tenants. The use of such expressions is a strong indication of the personal responsibility felt by this respondent to others on the Lyng Lane estate. Another resident arguably develops this further by inviting other residents to bring problems or concerns to them and disclosing that they are ‘...in the CATCH...’ This willingness to disclose their active partnership with the police significantly increases their vulnerability to retribution by local criminals who may feel aggrieved. Notwithstanding, this they have informed other tenants of their participation in CATCH and it appears this has had a beneficial effect upon them in that they are ‘...happier’.

### ***The resident’s most memorable event involving CATCH***

There was clear agreement between the residents of both Great Bridge and Lyng Lane that CATCH has provided opportunities for them to participate in responding to crime incidents. With the exception of one resident from Great Bridge all other respondents provided examples of criminal incidents; vandals damaging windows, burglaries and anti-social behaviour. This is unsurprising given the crime reduction nature of the scheme and its association with the police. What is of interest is the variety of different incidents described by the Lyng Lane residents. They provided examples of; residents directing the police response to criminal acts, the provision of information which led to the eviction of a tenant who had engaged in criminal and anti-social behaviour and observing gangs of unruly youths. The Great Bridge residents tended to recall only one incident where an offender was arrested following him causing damage to the windows of a local authority housing department office. When you begin to analyse the responses to the incident in greater detail it was again apparent that there existed a tremendous commitment to reducing crime within the estate.

### ***Resident’s perceptions of the benefits and failings of CATCH***

The question again provided clear agreement between the residents on both estates of the benefits of CATCH. One resident, when asked what’s good about CATCH stated;

‘Everything about it, I know more people and I’ve lived here for 31 years and yet I know more people through being in the CATCH than the other 31 years.’

There is considerable emphasis placed upon the importance of working together, teamwork and whilst acting as individuals knowing there are others available to assist them. Residents on both estates highlighted the potential dangers of retaliation from local criminals should their membership of CATCH be known.

This fear must be taken seriously when the residents themselves state they could be 'letter-bombed'. This is where petrol or some other accelerant is poured through a letterbox and ignited.

### ***The effect of CATCH on participant's lives***

The final question sought to determine if the resident's membership of CATCH had affected their everyday life. The majority of responses show the residents haven't changed their life styles through participation in CATCH. Whilst one resident of the Lyng Lane estate is clearly very involved and committed to CATCH, stating, 'I've got it on all the time' the majority of Great Bridge residents have been unaffected. There appears to be agreement between residents of both estates that whilst they willingly accept their membership CATCH it should not become an obsessive involvement. One comment, which appears to summarise the responses from the interviews is that of a resident who, states

'...I'm more aware of where I'm living I don't think it's a terrible place, when we first started we were more operational but we are much quieter now, that's good its brought the estate closer together.'

### **Conclusion**

The development of CATCH schemes has raised a number of interesting issues for public safety communications. With the reported increase in levels of confidence of residents and the creation of 'communities' through communication there may be reductions in the number of incidents of crime. There may also be increased levels of public participation in addressing other issues such as, localised flooding, with residents co-operating to help one another. In addition these individual schemes may 'merge' through one group interacting with others in its neighbourhood. If that happens, and there are early signs of such interactions in some areas, then the potential for enhanced information dissemination becomes a reality.

What then of the technology? In many regards the use of £50 radios may be the saviour of investors in advanced communications systems, 3G etc. The creation of 'people networks' who wish to talk to one another about issues of safety creates a demand not just for single handsets but also for access across different networks. An explanation behind my thinking is to picture an individual who while at home uses their radio / phone to talk to their neighbours about local issues. When they leave for work they change 'people networks' and migrate to their employer provided system utilising the same handset but recognising the responsibility under Health and Safety and insurance requirements, to safeguard their staff. As the employee changes say, physical location or job role, then the employers 'people network' will safeguard them, for example through offering personal attack alarms on handsets, until they leave work.

In the final article I will describe some of the early developments of these 'people alarm' systems and through discussing the existing radio link schemes offer a personal perspective into how the various systems may merge in the future.

# **BAPCO Article No. 3**

## **Radio Links: helping people communicate**

### **Introduction**

In this the final article, I intend to consider how the use of mobile phones may be influenced by the development of radio links, outlined in the previous two articles. This paper should neither be seen as a prediction as to the future, nor as an attempt to list the many technological advances in the field of communication, but more as an identification of opportunities to enhance community safety from a communications perspective.

### **‘Car Phone Watch’**

With the emergence of mobile phone technologies there existed a number of opportunities to seek the active involvement and support of members of the public in enhancing community safety. In 1989 I submitted a suggestion entitled ‘Car Phone Watch’ to the then BT Cellnet seeking their involvement in the scheme. The initiative was based upon car phone users receiving written information on serious crimes or other similar incidents with their phone bills and asking them to contact the police should they know of the event. In addition they were to be provided with maps showing the police force boundaries and contact telephone numbers for each area. It was hoped that these active, and mobile, citizens would provide a ready source of information and support to the police. However, a number of potential problems arose at this time, driver safety being just one, which prevented the scheme from being introduced. Notwithstanding this early set back, the basic concept of involving mobile phone users in supporting community safety remains as valid today as it did then, but in what form?

Mobile phones have often been purchased by relatives to safeguard individuals, how many times have parents bought their children mobiles so they can both keep in touch. Often for the very same reasons employers have also provided their staff with mobile phones, so they can contact someone in case of difficulty. But there are two, very well rehearsed problems with utilising basic mobile phones in this regard. The first is the significant increase in the number of telephone calls, both genuine and false, to the emergency services and the second is that they are now perceived as being the cause of crime, particularly street robbery. These two issues have, I believe, created a climate in which consideration as to the community safety applications of the systems has become difficult to countenance. And yet this position must be seen to be at variance with the individuals desire to use their phone to call for help, to assist the emergency services and to be forewarned of any increase in their risk.

Thinking about these last three points, its timely to consider how radio links operate in these regard before moving the argument further. In every town and city in the United Kingdom retail staff are using PMR systems to increase their own levels of safety as well as those of their colleagues and the public. Staff, when faced with violence, will utilise personal attack alarm buttons on their radios, to inform other scheme members of the incident and they, through their knowledge of the radio call sign and therefore the individual’s location, organise a response.

In addition the police and other agencies, such as the local authority are contacted via the radio link and informed of incidents that require their attention. These obviously vary in nature, but include reports of persons having been arrested for shop theft through to lost children. In turn the radio users are advised as to any change in their individual or collective risk. In my own experience such incidents include informing individual stores of the presence of shop thieves on their premises, through to advising the whole scheme of a telephone bomb warning.

Is it possible then, to advance these arguments and incorporate user's community safety aspirations, as a service within their mobile phone? It obviously is, and no doubt BAPCO members will be aware of several systems, some utilising GPS technology, others personal attack alarm facilities, and yet more utilising both, that go some way towards meeting users expectations. Thinking through the obvious 'differences' that exist between the type of community safety 'services' found in radio links and those of mobile phones, we are able to identify; group calls, monitoring, real-time risk analysis and alerts, and direct contact to users by the emergency services. Taking the 'people network' example I gave in my last article its possible to think through the potential community safety 'services' that an individual may enjoy when using a mobile phone.

### **People Networks**

Lets begin by thinking through the community safety services an individual may want from their mobile phone when at home. Firstly, they will want to talk to their neighbours about local issues, either for free or at a significantly reduced rate. This will not only encourage the use of such systems but also make them available to people on a low income. Is it possible therefore to include PMR 446 technology in a mobile phone? The scheme would wish to be able to receive information from the emergency services either about incidents that may affect their risk, for example distraction burglars operating in their area or requests to look out for say, lost children. Is it possible for such Neighbourhood Watch based schemes to register their contact numbers, voice or e-mail address with the emergency services?

When they leave for work they change 'people networks' and migrate to their employer provided system utilising the same handset but 'logging on' to the employers designated call centre. The call centre will recognise the individual's change in status, location and intentions whilst monitoring them during their working hours. This active monitoring is clearly an everyday event for many employees; particularly the emergency services but may be seen to be intrusive for others. However, if those employees are to be safe and fall under the responsibility of their employer then recognising their joint responsibility under Health and Safety would suggest such a system of monitoring be undertaken. In many ways mobile workers will have to have such active monitoring systems as much as builders wear hard hats.

When the employee changes physical location or job role, then the employers call centre will assess their changed risk and inform them of any actions to be taken. For example, an employee travelling by car to a location could be advised of the safest route to be taken, the safest location in which to park and possibly arrange for a taxi to take them to their destination.

Such 'risk analysis' can be undertaken by reference to both historical data, for example crime and insurance claims, or more current information, such as traffic data or news items. Ultimately, should the employee be faced with violence then they can activate their personal attack alarms on their handsets.

### **Why 'people networks'?**

Let's now consider who would have an interest in the safety of an individual and, in turn, what factors may drive the introduction of community safety services in mobile phones. I would begin by suggesting that the individual might make financial contributions to insurance policies covering both their life and possibly their mortgage, as well as towards a pension scheme. It is entirely common for businesses to install security systems in response to insurance requirements, for example monitored intruder alarm or fire sprinkler systems. If an individual is likely to contribute over many years to an insurance or pension policy it is conceivable that they would be encouraged to utilise a mobile phone network that offered such safety systems.

For an employer the same 'drivers' will apply regards the insurance interests they have in the safety of their employees. These are in addition to the statutory obligations under Health and Safety and Human Rights legislation to provide safe systems of work. With directors of companies facing far greater legal sanctions, for example imprisonment for breaches the situation is one that cannot be ignored.

The development of radio links has, I suggest, led to consideration as to the future systems and technologies that people will require to raise their confidence and enhance their levels of safety. At present, it is probably the case that an individual will have; a radio and a phone at home, use another radio and phone at work, and carry a mobile phone as well, with each device being made available to enhance their levels of safety. With the introduction of advanced mobile phone technologies there has been much discussion as to the 'commercial' services they offer, for example the ability to book theatre tickets and pay for them using your handset. Isn't it far more realistic to ask, what 'community safety' services the handset and network will offer?

### **A Final Thought**

Technology will allow phones to support video, a service that will have many personal and commercial applications but might I suggest one more? Thinking through the current debate about street crime and mobile phones its possible to think of many applications by which people could use their video phones to either discourage offenders or actively record crimes or incidents. But who will receive these images?

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