

SUCCESS

PUBLIC SECTOR PROJECTS CAN WORK



This is a celebration of success. Government programmes, both nationally and locally, are introducing IT systems that offer citizens efficient, innovative and, above all, useful services.

All too often media stories focus on high profile IT project failures, especially in the public sector. This hides the fact that there are many stories about fascinating successes to be told.

All the programmes featured in this publication were finalists or winners in the BCS's prestigious 2007 Project Excellence Awards. These examples are drawn from the categories covering public sector organisations of the year, best use of green technology, social contribution projects and several other areas.

The full list of finalists and winners is available at: www.bcs.org/awards

These programmes demonstrate the passion, commitment and professionalism of those working in government IT. This is their story. They tell us about the challenges they had to overcome and the lessons learnt.

So please read on to discover the sheer scale and complexity of today's public sector IT programmes. You may even be able to pick up some useful tips on the way.

Elizabeth Sparrow

BCS Vice President, External Relations



Access all areas

The West Sussex Accessible Service Partnership (WSASP) is unique. It is a federation of the County Council and all seven of the district and borough councils in West Sussex. It has successfully installed a joined-up client relationship management (CRM) system that enables citizens to report issues or request information about any local government service and have them delivered by the relevant body in the area.

The aim of the project was to provide a seamless information service using a distributed CRM system delivered via a network of 19 help points situated around the county. These help points provide a face-to-face interface for any of the county's 750,000 citizens to enquire about any aspect of local government services. The project was designed to enable any request to be serviced, regardless of location, thereby avoiding the issue of being passed from one person or department to another.

The critical factors were technical (the creation

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of a joined up, secure broadband network and the deployment of CRM across 19 different locations), cultural (getting the authorities to work together), and political (was there an appropriate drive for change and would it be managed effectively).

JUGNET

Technically the WSASP project team created a secure broadband network between authorities – JUGNET. This provides the communications infrastructure. They deployed the Lagan CRM system at a hub and created clients at each of the centres, some as single user PCs and others as clusters. The team also included an enhanced security module to enable data to be viewed either generally or only by specified individuals and groups.

Initially the WSASP's aim was to deliver the project, but it was then mandated to maintain and develop the service and to extend its remit into integration and business process change. All the authorities attend monthly board meetings and this

group reports to the joint leaders and chief executives in the county. The strength of leadership of the group and the responsiveness of the development and support team are key factors in the successful culture that has developed. WSASP is seen as an example for those authorities with aspirations for sharing services. This has helped to ensure the political aspirations and by presenting its work regularly (for example at an open day last year) the WSASP team is able to showcase activities in a highly attractive manner.

The aim was to provide a toolkit that could be exploited and adapted as individual areas explored CRM capabilities. This has been exceeded dramatically. Customer service agents have taken ownership of the scripting element and are adapting the system to their local needs. The infrastructure has been robust and has been used to implement a telephone contact centre (not part of the original plan). This has been so successful that a second one is to be opened about the time of deadline for this submission.

The CRM system is so flexible it has also been used as a back office database and workflow management system for waste managers. Initially this was done for a project where two authorities (Adur and Worthing) wanted to work together and the success of this initiative was the catalyst for a third authority (Mid Sussex) to do the same. A fourth (Horsham) is just starting down the same track.

The coordination of project activity has been critical to this work and WSASP appointed a coordinator, jointly funded (in equal amounts) by all the participants. This has ensured there is a focus for the on-going development activity. This in turn has led to the award of a grant from central government for capacity building across all of Sussex.

Benefits

The first impact of the scheme was in the number of enquiries that are now satisfied at the first point of contact. Help point staff are regularly sorting out over 95 per cent of issues the public reports; the government target is to achieve 80 per cent. They handle about 10,000 such interactions each month, growing from just a few hundred in the first month of opening.

The success of the way in which WSASP is managed and funded (currently £10,000 per year per authority) has

JUGNET

By installing a secure wide area network (JUGNET – joined up government network) and by using this to enable the introduction of a CRM system hosted by the County Council, but with access to each authority, it has been possible to offer a seamless service where by requests for service or information can be serviced from anywhere within the area.

generated significant external interest. Specifically, the partnership has received nearly £500,000 for the current year to develop new activities based around the exploitation of CRM. All of this has been done with no expansion of the human resources.

Moreover, the first telephony contact centre using the hardware and software infrastructure is handling 8,000 calls a month. A second contact centre is about to be opened, saving the host authority (Mid Sussex District Council) over £100,000 of capital costs.

The Adur Worthing partnership (AWS) for waste management has been a great beneficiary. It uses the CRM system and reports from it to manage its entire customer service for waste collection. This has helped to improve service response times as well as to assist strategic planning. A major initiative is now under way to incorporate all 'street scene'

incidents (graffiti, dog fouling and street sweeping). By exploitation of WSASP membership their running and maintenance costs for CRM have been reduced by over 200 per cent.

All of the local authorities in West Sussex were involved. This alone is unique in the UK. A data sharing protocol was agreed by all the corporate lawyers and this has been made available to other authorities in the country to enable them to better work together.

The partnership maintains a structured approach to activities. Monthly board meetings are used to report and plan major activities at a strategic level, with a technical advisory board controlling detailed activity.

The concept of the partnership was to enable new ways of working. Spin-off benefits have been initiatives like the creation of CENSUS (the Central Sussex IT service now offering a single support team for three authorities).

The key factor in maintaining the quality of relationships is the articulation of goals so everyone can see where they are developing, set against the context of challenges that local government has to face. Of similar importance is the ability to communicate effectively to different contributors. This means the project manager has to provide detailed technical explanations to IT staff and summarise these issues in an easy to digest form for front line staff. This is also enabled by operating occasionally as an agent handling customer enquiries, thereby being a user as well as a developer of the system.

CHALLENGES FACED

There were huge issues relating to security, notably to the opening of firewalls to enable authorities to communicate fully whilst still maintaining acceptable protection. The use of DNS servers and different local IT policies has been a huge challenge, as has the creation of local installation policies.

These have been resolved by the production of support and installation guides and the agreement of a service level agreement for the infrastructure that is acceptable to all authorities. The biggest challenge was therefore explaining to end users how security works and is enabled and managed.

It required the training of a central support team to respond to user issues and also the agreement of individual IT managers to adhere to a structured bug reporting process.

What was not anticipated was the reluctance to changes in working practice apparent in some managers. The most effective way to win hearts and minds was to lead by example. The regular visits by staff from one authority to another are used to highlight good practice. The obvious example is the lessons learned by Adur and Worthing Services being used as the model for two other authorities to adopt similar practices.

New mouth Wales



The Assembly Commission serves the elected Members of the National Assembly for Wales. The National Assembly is the 60 Assembly Members (AMs) elected by the people of Wales. They meet in a debating chamber in Cardiff, the capital city of Wales. The National Assembly oversees most public expenditure in Wales, and has powers to make legislation on a wide range of subjects.

The biggest impact of the website on the performance of the organisation has been how it presents itself to customers and users. The site was launched in May 2007 to coincide with a new era heralding enhanced law-making powers for the Assembly.

The website is a key tool in meeting the challenge of explaining the new roles and powers of the Assembly to users, and will be one of the vehicles that makes the democratic process in Wales run as efficiently as possible, aided by the intuitive publishing mechanisms which result in multiple content authors publishing material in a timely, consistent and accessible format. Dynamic features within the site content management system saves publishers time and dramatically cuts tedious multiple content entry, resulting in more efficient working practices.

By introducing the key members of the project team to each other early on in the process, and holding workshops to agree on the key requirements, the whole team were aware of the project's goals from the start, and all presentations to key stakeholders, such as Assembly Members, were conducted as a joint effort, which was a key factor in nurturing a sense of shared ownership of the final product.

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The project team worked with third parties to develop innovative features such as search pre-processing which inverted the stemming algorithm to cater for Welsh language mutation rules in the search engine, and an interactive calendar which dynamically locates documents relating to business meetings, offering a one-stop service for users and saving publishers time.

The main challenge was ensuring that the historical documents held on the old website were migrated to the new site as efficiently as possible. Almost 60,000 documents were held on the old site, and given their legal status, had to be moved over. The problems were numerous, with the majority of documents not fit to be migrated over to the new site as they were, given the poor quality of data behind them. There were also major concerns that these old documents broke accessibility guidelines, which was unacceptable for a brand new site. Having trawled through the data behind these documents, the project team also discovered that there was no way to mechanically link the English and Welsh versions of the documents – a key requirement both for the search engine to function properly and from the users' perspective.

The project team considered all possible options before presenting the solution to the project board – the documents were to be converted into PDF, thus solving the accessibility issues, but had to be matched manually. This task was undertaken by the project team and numerous volunteers throughout the relevant departments of the National Assembly for Wales.

A huge challenge was ensuring that the main

failing of the old site – the search engine – was not only adequately met but added considerable value to the site. One of the key requirements for the desired technological solution was that it is able to search data equally well in English and in Welsh and to effortlessly identify linkages between different documents regardless of their language. BT selected Autonomy's technology after competitive procurement owing to its unparalleled language independence. Autonomy's Dynamic Reasoning Engine is based on advanced pattern-matching technology (non-linear adaptive digital signal processing) that exploits high-performance probabilistic modelling techniques to extract a document's digital essence and determine the characteristics that give the text meaning. As this technology is based on probabilistic modelling, it does not use any form of language dependent parsing or dictionaries. Words are treated as abstract symbols of meaning and the engine derives its understanding through the context of their occurrence, rather than a rigid definition of the language grammar.

Award-winning

Autonomy's award-winning IDOL technology was a particularly apt choice for the search facility since it uses a unique combination of Bayesian probability and information theory and can derive meaning from unstructured information. IDOL forms a conceptual and contextual understanding of data in any format and language and can identify links between disparate pieces of information that are not immediately obvious. In addition to being language and format independent IDOL sits above an organisation's multiple databases and can search content across multiple repositories.

The complexity of the Welsh language presented another challenge – how to construct dictionaries of Welsh language synonyms. The normal approach to this is to construct dictionaries of synonyms and to use a stemming algorithm to detect variations in words e.g. instances of run, runs, and running would all be returned from a search for run. Unfortunately this conventional stemming algorithm does not fully cover Welsh where the language also contains rules which change the beginning of words (rather than the ending) according to gender and context – a language feature known as mutation. For example the Welsh word for Wales is

PROJECT OUTLINE

The critical success factors can be summarised by the aims of the project: to provide the National Assembly for Wales with an excellent bilingual website, whose main purpose was to:

- encourage engagement between the people of Wales and stakeholders of the National Assembly for Wales with the organisation;
- facilitate the democratic process by enhancing communication between voters and their elected representatives;
- present the work of the National Assembly for Wales in the most accessible, timely and efficient way.

To achieve the purpose of the project, the product had to meet all of the

following needs if it was to be seen as a success:

- develop a website that offers first-class interactivity with users, including advanced features such as the ability for users to identify their constituency and assembly members with minimum fuss;
- include outstanding content that is also of quality, has usability, is accessible and well designed;
- the site should have effective mechanisms for the control and coordination of publishing content to the internet within the organisation;
- the site should be hosted securely and independently of the Assembly's network.

Cymru, Gymru, or Nghymru, depending on context.

The team worked with the Autonomy professional services team to develop search pre-processing which inverted the stemming algorithm to cater for the Welsh mutation rules. This meant that searches of the site using Welsh search terms would be stemmed according to the Welsh mutation rules whilst English search terms

would be stemmed according to the conventional stemming algorithm.

This additional bespoke coding is unique to this project and ensures that searches in Welsh and English return fully equivalent results. By doing this, Autonomy's technology has taken the concept of treating the Welsh and English languages with total equivalence to a new level.

WORKING RELATIONSHIPS

The main parties involved were the National Assembly for Wales and a consortium of companies led by BT.

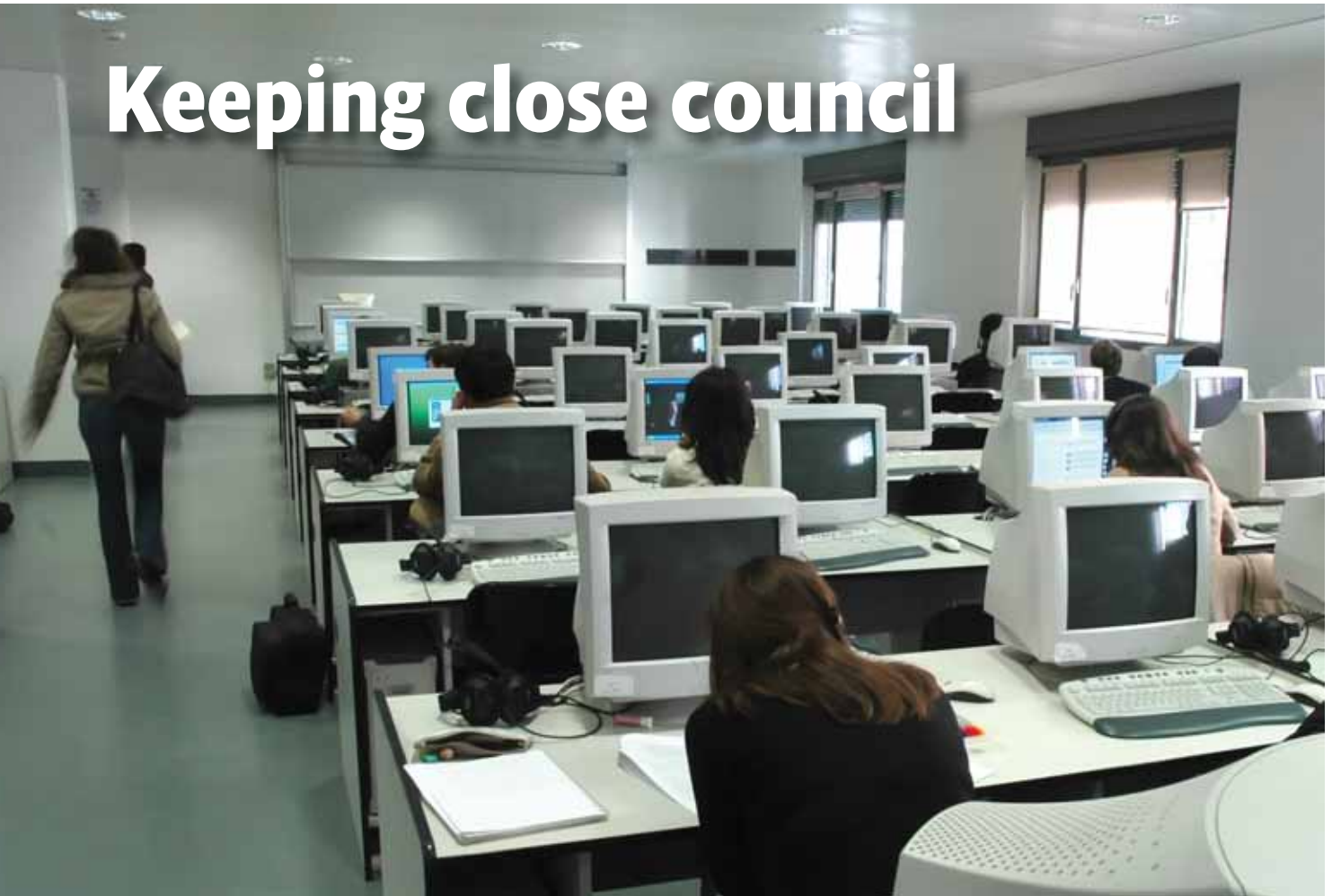
The parties worked exceptionally well together at all levels. In terms of structured meetings, the senior responsible officer on behalf of the Assembly and the client operations director on behalf of BT met monthly to discuss how the project was progressing. Regular project meetings were held, chaired by the senior responsible officer and with project managers and key staff in attendance. The project managers for the Assembly and BT held weekly checkpoint calls to summarise the main issues of the week, and the development team met frequently with the project team to progress the day-to-day issues.

The development work on the initial

requirements was conducted jointly, which added to the sense of ownership of the product between the parties. Having a dedicated and stable team on the project for its duration also contributed significantly to the sense of joint ownership.

A factor that contributed to maintaining a good quality relationship between the parties was that a senior business analyst from BT was posted to work with Assembly staff throughout the project. The business analyst was the main customer relationship conduit who acted on behalf of both Assembly and BT. Added to this, social events were also arranged where the teams would get together outside of work which contributed to team building and bonding.

Keeping close council



Rotherham Metropolitan Borough Council made a commitment to modernise, become more efficient, and improve the quality of services to the quarter of a million people it serves. Investment was badly needed in new technology, training and better ways of working. A pioneering partnership with BT, called RBT (Connect), unlocked investment and made possible a radical re-think of the way the council operates.

The partnership, launched in 2003, has combined the very best of the private and public sectors. Innovative use of new technology combined with imaginative process re-engineering has resulted in a major transformation in the performance of the council.

Rotherham Metropolitan Borough Council is an organisation with 13,500 employees working on 300 sites across the borough, providing a wide range of services to a population of a quarter of a million people. There was a recognition that there was a lack of a one-council approach to delivering services and that it was sometimes out of step and lagging behind the requirements and expectations of its customers. Its IT infrastructure was also out-of-date, fragile, and in danger of becoming seriously overloaded.

Investment in new technology, training and

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different ways of working were key to bringing about the improvements in performance the council wanted to achieve. The vision, ambition and commitment were there, but like all local authorities, it faced considerable financial restraints. A radical solution was needed and a bold and pioneering decision was taken.

The council joined forces with the private sector and set up RBT (Connect) – a joint venture company between the council and BT. The partnership was launched in 2003 and over the last 12 months many ground-breaking projects have come to fruition. During the 12-year life of the partnership, BT is investing £30 million in world-class, leading-edge technology, new business practices, training and better ways of working. The council benefits from £50 million of efficiency savings to plough back into the provision of ever higher quality services for Rotherham citizens.

RBT (Connect) took over responsibility for five areas of work on behalf of the council – ICT, revenues and benefits, HR and payroll, procurement, and Rotherham Connect (a telephone contact centre).

The council is now at the forefront of customer service in the UK. Investment in new technology combined with innovative ways of using it has transformed the way it works and delivers services.

Rotherham residents are feeling the benefit across a whole range of services including an

award-winning revenues and benefits service; procurement savings of £3 million this year; cutting edge technology in Rotherham schools, cleaner streets through Rotherham's award-winning Streetpride initiative; closer working with partners, including health, which is improving standards of care for the most vulnerable members of our community; and better protection in the event of a major emergency.

At the same time as it pledged to improve services, the council also pledged to become a better employer. Staff too are benefiting from the partnership.

Successful initiatives include an award-winning flexible working scheme (made possible by new technology), and an intranet-based, self-service HR initiative which enables staff and managers to access and update their details.

Benefits

The introduction of a far-reaching tailor-made procurement system by the partnership has transformed the way the council buys in goods and services. Savings of £1 million were made in its first year of operation, almost £3 million has been saved this year, and it is on course to save £3.5 million next year. Part of these savings have been ploughed back into front line services for the people of Rotherham, including three brand new customer service centres, with another three planned at strategic locations across the borough over the next 18 months. Rotherham is the first local authority to carry out virtually 100 per cent of its procurement processes electronically. New initiatives developed during the last 12 months include electronic request for quotation (eRFQ), eTendering and eEvaluation. Procurement at Rotherham has been awarded Beacon Status by the government.

Two purpose built contact centres have been established with a total of 100 seats. Branded Rotherham Connect, this has completely changed the customer experience of contacting the council. Customers can get in touch with the council 12 hours a day, five days a week, at a time and in a way convenient to them, whether by traditional routes such as telephone (including minicom) or using newer technologies such as the Internet, email, SMS text messaging and Digital TV.

There are also five widely advertised dedicated golden numbers which customers can ring for key services. One of

PROJECT OUTLINE

Efficiency savings are being ploughed back into front line services for the people of Rotherham, who are also benefiting from greater accessibility to these improved services.

Investment in new technology means that residents are benefiting from a whole range of initiatives including one stop customer service centres, a telephone contact centre open 12 hours a day, five days a week, cleaner streets, an award-winning

revenues and benefits service, cutting edge technology in schools, and even better protection in the event of an emergency.

IT is being used as a means to an end – and that end is better services for the people of Rotherham. Earlier this year Rotherham's efforts to improve were recognised nationally when it was named as most improved council in the country.

these is Streetpride, an award-winning environmental initiative which covers every aspect of the street scene in Rotherham. Callers can report issues such as litter, graffiti, flytipping, a faulty street light, or a broken seat. GIS and new technology means the location of the problem can be pinpointed instantly.

One of many satisfied customers said, 'I reported some flytipping last week by phone. The officer who took my call was friendly, polite and efficient, and the next morning (less than 24 hours after I'd reported it), the site was clear of the debris. Just thought I'd say well done.'

Three new one-stop customer service centres (three more are due to open in the next 18 months) have transformed the

way residents do business with the council. Old, out-of-date, somewhat unfriendly buildings have been replaced by bright, modern areas. A queue management system has drastically cut waiting times, and a team of highly trained advisors with the latest CRM technology at their fingertips can answer a range of queries quickly and efficiently. The first to open was the Civic Building in the town centre. A recent customer exit survey records 100 per cent satisfaction for helpfulness, 100 per cent satisfaction for the tidiness and comfort of the waiting areas, and 95 per cent satisfaction with the opening hours. A total of 85 per cent of customers had to wait less than 15 minutes, and 10 per cent less than 30 minutes.

REAL BENEFIT

The council's benefits service has been transformed from a failing service to a four star service, according to the Audit Commission. Rotherham is one of the most disadvantaged areas in the country, and housing benefit and council tax benefit are important contributions to many household budgets. Prevention of benefit fraud, together with quick and efficient payment of benefits to all those entitled to them, helps support communities and the local economy.

Customers benefit from quicker and more accurate processing of claims, shorter waiting times and more involvement in and consultation about the service. Rotherham is lead authority on the national eBenefits project which uses new technology to provide a joined-up, more accessible

service to claimants across England.

Thousands of Rotherham schoolchildren benefit from Rotherham Grid for Learning. It provides fast, secure and effective broadband internet and email for schools. Businesses, libraries, museums, youth clubs and community groups will all soon be connected.

A high-tech solution has been developed to speed up the flow of vital information to everyone involved in responding to a major emergency in Rotherham. The emergency planning incident management system (EPIMS) is the first of its kind in the country.

With the help of RBT, the country's first masters degree course in eGovernment has also been launched at Sheffield Hallam University.



Keeping motors running

MOT computerisation has brought about the biggest change to the MOT scheme since the scheme was introduced almost 50 years ago. The project has provided all 19,000 MOT garages in Great Britain with computer hardware linking them to a central database of MOT results. The purpose is to create an electronic record of all MOT tests conducted in GB; the database record has replaced the old, paper MOT certificate as the definitive proof of MOT status. In addition, the project has enabled VOSA and garages to communicate in real time, provided garages with electronic ordering and payment mechanisms, allowed motorists to re-license vehicles over the internet and created a website which enables motorists to check MOT status and history free of charge.

Instead of receiving hand written MOT documentation as they did for over 40 years, 23 million motorists per annum now receive more professional computer generated certificates and other MOT related documents. In addition, they now have the capability to use the internet to check the MOT status and history of a vehicle which they may be considering purchasing.

Also, the same group can now purchase their road tax online rather than make time consuming trips with paper documents to the Post Office. This will have brought significant, tangible IT related benefits into the lives of the vast majority of motorists in Great Britain.

Similarly, the majority of the 55,000 regular users of MOT computerisation are mechanics by

The principal use of MOT computerisation is to record the results of MOT tests and issue professional, computer generated MOT documents instead of the previous hand-written ones.

trade; this will therefore have been their first experience of using a large scale IT system. In order to smooth this transition, full face-to-face training was given to users at the garage in which they worked and full, written user instructions were issued. An opinion poll conducted in late 2006 by the respected MORI organisation found that 75 per cent of garages reported that MOT computerisation has had a positive impact on their business and 95 per cent said the system was easy to use.

Beneficial system

Via a PFI initiative with Siemens IT Solutions and Services, a desktop PC, monitor, keyboard, printer, modem, mouse and smart card reader have been installed free of charge into all 19,000 MOT garages in Great Britain. In addition, all documentation and printer consumables are provided free of charge as is the support infrastructure, equipment fault resolution and service desk back-up. To ensure that all users are best placed to derive maximum benefits from the system, on-site training was delivered to all 55,000 end users at the point of installation by dedicated trainers; comprehensive manuals detailing how to use the system are also provided to all garages, together with computer-based training facilities on their PC.

The principal use of MOT computerisation is to record the results of MOT tests and issue professional, computer-generated MOT test documents instead of the previous hand-written documentation. The new style MOT certificates include a reminder sticker which motorists can affix

to their vehicle. The PCs connect to the central database in real time via the standard public telephone system, to record the definitive result of all MOT tests. MOT computerisation is also a tool for VOSA to administer the MOT scheme so internal VOSA area office staff can also access the central database using web browsers from their normal office desktop environment. There are permanent connections to the central database for DVLA, so that the DVLA vehicle records system can be updated with MOT Test results, thus enabling DVLA's electronic vehicle licensing service and making MOT test information available to enforcement agencies such as the police.

As detailed below, MOT computerisation is already delivering a significant range of benefits for MOT garages, DVLA, police, VOSA and 23 million motorists. The potential use of MOT computerisation and how further benefits may be realised in the future is currently being explored; these could include:

- A service to provide MOT test information to vehicle fleet operators electronically so that they can ensure the vehicles belonging to them are roadworthy; this pilot is currently in joint evaluation with a major vehicle leasing company. Provided that the pilot proves to be successful, this will be implemented during 2008 as an internet-based service.
- A handheld testing device into which MOT testers will record MOT test results as they conduct the physical inspection of the vehicle. This will then be docked and the results automatically uploaded into MOT computerisation. This will save testers time and effort, thereby shortening the duration of the MOT test. Good news for motorists as well.
- Increased availability of MOT test history information to those involved in vehicle checking, for instance HPI. This should enable more robust checks on a vehicle at the point of sale, leading to improved protection for consumers and a reduction in vehicle crime.
- The MOT transformation project in which VOSA is using the management information provided by MOT computerisation to police the MOT scheme more effectively. During 2007/8, VOSA began moving to a risk-based approach to MOT

PROJECT OUTLINE

MOT computerisation uses bespoke software developed specifically for VOSA by Siemens IT Solutions and Services. The dedicated MOT software interfaces with a separately maintained technical database which provides vehicle testers with up-to-date, nuts-and-bolts, information specific to the actual make and model of vehicle undergoing test. This information

includes details such as how to conduct brake tests, how to adjust headlamps and diagrams of seat belt locations and jacking points. When testers input MOT test results into the system, it automatically calculates brake performance, something they previously had to do manually, thus ensuring accuracy and consistency of testing throughout GB.

enforcement which will better target our finite resources towards the non-compliant whilst reducing the burden on compliant garages.

- A direct link between MOT computerisation and automatic number plate recognition (ANPR) cameras. This would enable police to be informed, in real time, whether a vehicle passing an ANPR camera has a current, valid MOT certificate. This would enable police to target manpower against the minority of non-compliant motorists without having to spend time and resource in stopping innocent, compliant motorists.

MOT computerisation is an award winning project in recognition of three significant achievements:

- The scale of the project. A new computer system was installed into 18,300 separate, private businesses together with on-site training in less than 12 months. During the past three years, 20,300 different garages have used the system; they have recorded the results of over 84 million MOT tests and issued over 60 million MOT certificates
- Making a difference. MOT Computerisation has made a real,

tangible difference to the owners of 23 million vehicles, the vast majority of motorists within GB. They can now check the MOT status and history of a vehicle and thanks to the link with the DVLA EVL Project, re-license their vehicle at home easily and quickly without having to take pieces of paper to the Post Office. 55,000 MOT testers, a large number of whom were unfamiliar with IT, now use MOT computerisation on a daily basis.

- Reliability, integrity and repute. On busy days, over 150,000 MOT tests are conducted in the UK. It is therefore essential that garages have a reliable system which enables them to test vehicles whenever they need to do so. MOT computerisation is available to garages 24 hours a day, 365 days per year. The service desk also provides back up from 6am to 10pm 365 days a year.

The garage hardware is also proving to be reliable; 99.9 per cent of tests were conducted in normal running without recourse to the business continuity procedures. More garages have joined the MOT scheme since the system was introduced; this is in direct contrast to the expectations of the garage trade.

REAL BENEFIT

- **MOT garages** – electronic ordering and payment; access to management information reports;
- **DVLA** – improved vehicle records; greater take-up of electronic vehicle licensing.
- **Police** – record of a vehicle's MOT status can now be made available

- on police national computer;
- **VOSA** – improved efficiency in administering the MOT scheme; better targeting of resources;
- **Motorists** – improved consumer protection and greater consistency in MOT testing standards.



Upwardly mobile business

Mobile Working is driven by business need. It is about transforming the way services are delivered and maximising investment in best of breed technology. Newcastle City Council's Mobile Working Programme has delivered a convergent and sustainable business-focused mobile working solution, which is now being extended across the Council. Newcastle, with its partner APD Communications and supported by the North East Centre of Excellence, has now firmly established its position nationally as a leading local authority.

Some benefits are direct, tangible and already delivered – others have not yet been fully realised but are recognised and are being tracked. However, what is clear from the financial benefits alone is that in Newcastle's repairs and maintenance service the return within a year of mobilisation has already been almost double the original investment made. Newcastle's is a model from which other local authorities can gain knowledge and experience, and has the potential to host mobile solutions for other local authorities in the North East region.

Background

Over the recent few years Newcastle City Council has recognised the potential benefits of mobile technology, led by robust business and project management, as a means of gaining efficiencies and delivering service improvement.

Within Newcastle attention has been principally focused on the neighbourhood services directorate. It has evolved from, in the first instance, investment

Over the recent few years, Newcastle City Council has recognised the benefits of using mobile technology, led by robust business and project management, as a means of increasing efficiency and delivering real service improvement.

in the use of vehicle tracking and has now moved on to the comprehensive re-development of back office systems and re-engineering of business processes to support remote job despatch and completion via handheld PDA devices. All this has been achieved in partnership with APD Communications, a company specialising in mobile information systems.

In June 2003 Newcastle City Council began its mobile working programme by tendering for a contract to deliver vehicle tracking. APD Communications was successful and the council now has tracking installed in over 450 vehicles on its way to tracking the entire fleet.

A project to deliver remote job despatch and completion in the housing repairs and maintenance service has also been completed in partnership with APD Communications. It began in June 2006, was piloted in December 2006 and has been fully operational since April 2007, with 128 operatives now using PDA devices.

A pilot will be shortly underway in environmental services – covering grounds maintenance, cleansing and pest control services - which will support at least 58 users by July 2008.

Utilising a GPRS framework, the technical solution is built around a simple messaging facility whereby jobs are delivered to and from mobile devices as and when requested. In addition to this, actions which take place on the device trigger status messages which are sent back for viewing by managers. In this way it is possible to track the status of jobs and the movement and availability of resources, which in turn allows for a more efficient

use of resources as jobs – and in particular emergency jobs – can be delivered to the nearest available and skilled operative.

Mobile working is part of a larger and very ambitious IT transformation programme within Newcastle City Council. It is managed using the council's own management frameworks which are based on industry standard best practice – MSP, PRINCE2 and ITIL.

The rationale for mobile working is to deliver change for the better, which has required winning hearts and minds across the organisation. Extensive and intensive work has been completed to review and re-engineer business processes, challenge and change long established ways of working, re-draw responsibilities and re-define operating procedures and service standards.

At a practical level organisational change has been facilitated by involving staff at the outset, being honest with them and explaining the potential benefits to them in their work, such as:

- less paperwork;
- less supervision and more responsibility;
- less down-time;
- less travel;
- ability to work from home;
- lone worker protection;
- improved skills;
- making effective use of a communication plan with key roles and clear responsibilities;
- understanding staff IT skills and tailoring training to individual needs;
- ensuring that open and easy feedback mechanisms are available and used;
- engaging positively with the trade unions, gaining and maintaining their support including partnership work with the trade unions' learning and skills for life teams.

The total project costs to date have been supported by a combination of council mainstream and transformation funding, and funding from the North East Centre of Excellence.

Critical success factors

A number of factors have been, and continue to be, critical to the successful delivery of the mobile working programme in Newcastle City Council.

Senior management leadership and commitment is essential to provide the vision, drive and determination to succeed,

FUTURE STEPS

There are ambitious plans to extend mobile working into other service areas across the Newcastle City Council as part of service transformation. This programme covers:

- environmental services pilot and roll-out;
- gas servicing and capital works;
- inspection services;
- play areas, engineering services, trees, cemeteries;
- public health;
- planning and building control;

- grounds maintenance and grass cutting;
- engineering services;
- gritting vehicles;
- buildings management and cleaning;
- leisure and sports development.

Deeper business and technical integration is also planned, covering:

- stores and stock management;
- call centre operations;
- maps in the field.

and the necessary resources to support the project. Robust management is required to organise the delivery of the project and to manage the engagement of all stakeholders, especially the operatives and trade unions. Crucially, this needs to ensure that the business embraces and embeds the required changes, including new IT solutions.

A multi-skilled team is necessary to lead the project on a day-to-day basis, providing the acumen and specialist know-how to understand the business and to work through solutions. One size doesn't fit all and a flexible approach is required which recognises differing individual needs.

Business benefits need to be identified at the outset, with clear metrics and systematic methods of measurement to ensure that they are realised. Lessons learned along the way need to be recognised, shared and implemented if they will improve the project.

Newcastle City Council and APD Communications' work is beginning to be

noticed, and not just by other local authorities. Newcastle's experience is also a Project Nomad Case Study and the council is a member of the Mobile Computers User Group.

Best practice

There are huge opportunities for others to benefit from Newcastle's experience and investment, to which the council is always open. Some other local authorities in the region have already approached Newcastle and others could also be helped through:

- reducing risk and effort;
- enabling quicker procurement, roll-out and return on investment;
- reducing costs through shared infrastructure, hardware and software (Berwick, for example, now has vehicle tracking running on Newcastle's IT infrastructure);
- optimising or sharing resources;
- providing project and technical advice. Newcastle has already provided advice to a number of authorities.

BUSINESS EVALUATION

Outcomes and benefits

At the outset of the mobile working programme there were broad aspirations of how the business could be improved. Prior to starting the projects to deliver remote job despatch and completion in the repairs and maintenance service and environmental services, these aspirations were refined into a clear set of benefits and metrics which has enabled their delivery to be tracked,

monitored and demonstrated.

The investment in mobilising the repairs and maintenance service has already been returned, almost twice over, as the cashable value of the measured benefits to date is over £500,000. The most significant savings have been made from reduced staffing and accommodation as well as increased revenue from improved customer satisfaction.



Driving the defence business

Defence Business Learning (dblearning) provides business related courses for all Ministry of Defence (MOD) personnel, whether they are civilian or military personnel of which there are in the region of 300,000 in total. Its mission is to provide opportunities to help people in defence learn more quickly the skills they need to perform business tasks effectively, both immediately and in the future.

The MOD ECDL Management Centre is a section within dblearning which has the remit to deliver suitable training and assessment in order that the MOD can ensure its employees are provided with adequate IT skills to enable them to carry out their roles within the MOD efficiently and confidently.

The achievement of military effect and business success will, in future, be significantly enhanced through the networking of existing and future capabilities. The potential and power of networking spans the whole of defence in both the operational and non-operational environments. We have an ever-increasing ability to generate information, move it around more quickly and make it available to more people – often simultaneously. One of the MOD's highest priorities is to manage the increasing use of information and communication technology (ICT) in the battle-space. In addition, the business-space and our administrative processes are increasingly supported by ICT.

One government aim has been to make all government services available electronically. All personnel working in defence need to be able to exploit these opportunities. Therefore, the MOD must

One aim has been to make all government services available electronically. All personnel working in defence need to be able to exploit these opportunities. Therefore the MOD must ensure its workforce has adequate computer skills.

ensure its workforce has adequate computer user (CU) skills, which the DfES has also recognised as the third basic skill alongside literacy and numeracy. The defence training review recommended that all in defence should develop information age skills and be competent to an appropriate level in CU skills required for their job, career and personal development. This is a key enabler for the full benefits realisation of the defence-wide information and HR systems currently being introduced and the increasingly digital nature of the defence business.

Necessary skills

The core MOD qualification for gaining and testing computer user (CU) skills is the European Computer Driving Licence (ECDL). This qualification has international recognition, and it has recently been changed to International Computer Driving Licence (ICDL).

The ECDL has been mapped onto the NQF and fully meets the requirements of the National Occupational Standards framework; this supports the MOD aim of offering accreditation opportunities for defence training.

The MOD's computer user policy was published in 2006 and the latest policy now stipulates the exact requirements and performance targets for all of the MOD.

This policy is to be fully implemented for new entrants by September 2008 and for all others currently employed in Defence by 1 April 2012. Single services are to report once per year at the end of Q4 with the first report due at the end of financial year 2007 - 2008.

PROJECT OUTLINE

All of this further supports the efforts already made to improve the computer skills of MOD employees, in an organisation which promotes personal development at all levels. The success of the scheme today cannot, and should not, be measured by numbers alone as improved performance, better skilled employees and accessible training and testing cannot be quantified simply by analysing data.

Customer service is high priority for dblearning and this feeds through from the heart of the MEMC scheme (the MEMC team) through to all parties involved and back again. The success is not measurable but is certainly felt by students and test centres alike by the way problems are resolved efficiently and courteously.

Given the candidates have three years to complete ECDL and that many candidates may not intend achieving any more than a Level 1 qualification, having 30 per cent of students completing all modules is remarkable given the transient nature of the MODs employees. These figures do not include statistics from off-line centres.

Since January 2003, 135,623 successful tests have been completed online, again this does not include tests taken at off-line centres.

Costs have been minimised by having one test centre with over 100 satellite centres (currently 92 online centres and 11 offline testing facilities) although this number changes every month as more centres join the scheme.

Electronic logbooks are used to save on administration costs and to avoid loss of the logbook with personnel continually being on the move. As a result of the high throughput of the testing competitive test fees, royalties and registration fees have been negotiated.

MEMC provides the in-house expertise and carries out all the liaison, administration and coordination between satellite centres, students and other parties, including authorising new test centres and arranging installations and training of verifiers.

Service desk

Ultimately the MOD ECDL Management Centre is the first port of call for any problems which may arise within the scheme and also provides the central point for certificate issuing direct to students which minimises all administration work at the satellite centres.

The DELC service desk provides the single point of call for technical faults and queries. This enables calls to be logged,

Following a pilot study in 2000 the European Computer Driving Qualification (ECDL) was adopted as the standard for MOD employees to achieve. In 2003 a defence wide instruction was published advising all MOD personnel of the standard required promoting the means, through the MOD ECDL Management Centre, through which satellite ECDL Centres could be created and in turn MOD employees could enrol, train and undertake ECDL tests.

The pilot scheme was initially self funding whereby students paid for the qualification at a cost price, but it is now centrally funded by dblearning to further encourage and promote the need for good IT skills within the MOD.

Since December 2003, when the first test centres came online (previously run as standalone centres), over 36,000 people have registered for ECDL, with an excess of 11,000

people having completed ECDL and a much greater number having achieved the Level 1 qualification. This may seem to be a small proportion of the MOD population but bearing in mind the transient nature of its employees this is indeed a growing success.

The ECDL scheme has been run in conjunction with Activ Training which provides the courseware and testing including the test centre and verifier support and LogicaCMG which hosts the training and testing within the defence electronic learning centre (DELIC) infrastructure and provides first line service desk support.

The scheme is designed to be adaptable and flexible so that ECDL testing and training can take place anywhere in the world, wherever MOD personnel are at work. This means that we are able to provide a service to each of the armed forces in whatever theatre they find themselves.

tracked and monitored to ensure issues are noted and resolved. A significant benefit of the systems adopted by the MOD is that when other qualifications are adopted, e.g. e-Citizen, e-Type and so on, the infrastructure and distribution of the system will allow for an easy roll-out and it will also enable in-house assessments to be

developed if necessary.

Customer service is a high priority for all involved with the MEMC scheme with this ethos being shared by everyone involved. Without this it is certain that the system would not run as effectively as it does today.

Figures provided as of July 2007.

LESSONS LEARNT

One of the biggest lessons learnt was how to work closely with a software developer, a hosting company and a variety of IT/IS organisations to meet even the most demanding and sometimes seemingly impossible objectives. This experience will influence other projects in which dblearning, MEMC and individual staff are involved.

After the most recent major new software rollout a full report was produced and a wash-up meeting with all parties present resulted in an action plan being produced to ensure full project completion. It is through such reports, meetings and action plans that lessons learned are captured and disseminated.

The process of updating software is

many times more complex when dealing with multiple different scenarios and therefore needs to be treated as a major project with a project team nominated and a sophisticated upgrade plan template followed. The development of such a template is clear evidence of the lesson learned being captured to ensure they are applied to future situations.

We have experienced moments when the performance of the total solution after major upgrading has not immediately met expectation. In such situations it has been important not to react in a knee jerk fashion but to work patiently and ever more closely with the main contractors to explore short and long term options.

Flood control



Every second counts when floodwaters are rising. That's why the Environment Agency operates a flood warning service – Floodline Warnings Direct (FWD) - in those parts of England and Wales that are at risk of flooding from rivers or the sea.

Using the latest available technology, Environment Agency staff monitor rainfall, river levels and sea conditions 24 hours a day and use this information to forecast the possibility of flooding. If flooding is forecast, technology converts text-typed warnings from Environment Agency officers into speech. FWD can then issue these warnings to registered households and businesses via a range of media, including phone, fax, email, SMS text messaging and pager links. The system also serves a range of professional organisations, including the emergency services and local authorities.

Warnings are issued using a set of easily recognisable codes that indicate the level of danger. A flood watch means flooding of low-lying land is expected, so be prepared; A flood warning means flooding of homes and businesses is expected, so act now! A severe flood warning means act now! Severe flooding is expected with extreme danger to life and property. Finally, an All Clear means no further flooding is expected and that water levels will start to go down. The codes are not always used in sequence. In the case of a flash flood, for example, a severe flood warning may be issued immediately with no other warning code preceding it.

If flooding is forecast, technology converts text-type warnings from Environment Agency officers into speech. FWD can then issue these warnings to registered households and businesses via a range of media.

People can find out if they are eligible to receive FWD updates by calling the Environment Agency's free 24-7 flood helpline Floodline on 0845 988 1188. Customers and professional partners will also be able to register or amend their contact details for FWD using an online registration service, which is due to be launched at the end of 2008.

At present 290,000 people are on the FWD register – but the Environment Agency is continually striving to get more people at risk of flooding to sign up.

FWD became operational in England and Wales in January 2006. Underpinning the system is an Oracle database. This holds a range of data including customer contact details, information about properties at risk of flooding - based on Ordnance Survey Address Point Data - message sets plus variant and target areas. The spatial extensions to Oracle are used to store details of the polygons that define a target area to send warnings to. Target areas are maintained and viewed in the context of OS raster maps with two layers defining polygons indicating the flood risk areas.

Linked to the database is the web-logic layer that is the platform for the FWD application. The application is implemented using J2EE technology structured around specific J2EE design patterns. The application presents browser interfaces to control all aspects of the system. This is accessible from the Environment Agency network and also available to Floodline staff. The J2EE application

integrates with several standard components to implement specific areas of functionality.

QAS software provides the functionality to take postcodes and house number details and look up corresponding full addresses and map coordinates – referred to as geo-coding and specified as northings and eastings (i.e. X Y coordinates). QAS also provides a gazetteer function so that town and city names can be entered and the corresponding map area found. QAS provides a locator functionality that returns all addresses within a defined area too. This is used for promotional purposes so, for example, when a new target area is defined all potential customers can be contacted.

A text-to-speech component provides a mechanism to convert textual warning messages into voice clips. This enables a flood warning officer to construct the appropriate warning message using text and substitute data values, such as the date, and then preview the output voice message before it is issued.

The ESRI Arc suite of products provide interfaces into the Oracle Spatial database, desktop tools to view, modify and save polygons and tools to convert the raster and overlay layers into a format for viewing through a standard web browser. Also an ESRI red lining tool is used to allow simple polygon manipulation via a standard browser for emergency situations

Edify provides handling of the outbound messaging functionality. Once the J2EE application has handled all functionality, to derive a list of people to contact, the contact method and the message content, Edify performs the actual contact. The interface between the J2EE application and Edify is a queue of message items where each item contains all information required to issue the warning.

For each of the supported channels - phone, fax, pager, SMS, XML - Edify establishes the link (e.g. dials the phone number and waits for it to be answered), sends the message content (e.g. plays the voice message) and waits for a confirmation. Edify records and stores all the details about each contact attempt (failures as well as successes) and stores them in the database.

Measuring success

To ensure FWD would be able to cope during major flood events, the

KEY FACTS

- FWD uses a multi-media approach, issuing warnings via phone, fax, email, SMS text messaging and pager links;
- Customers can choose how they receive warnings and alter those arrangements throughout the day or week to fit in with their home and working requirements.

Environment Agency worked in partnership with Fujitsu to develop a system capable of handling extreme volumes of traffic.

Tested

This ability to function under pressure was tested to the full during last summer's floods when many parts of the UK experienced unprecedented levels of flooding.

During this exceptional period, the system issued almost 2,500 warnings and made 380,000 contacts with householders and professional partners. At the height of the floods – on one day in June - FWD was making an average 1800 calls every hour.

The Environment Agency's Floodline Warnings Direct Manager Phil Armstrong said: 'FWD has enabled more effective targeting of flood warnings to those at greatest risk as well as reaching a wider audience. The system also provides greater choice to our customers about how they want to receive flooding updates.

'FWD demonstrates the Environment Agency's commitment to improving flood risk management through the use of innovative technology. However, as our weather becomes more volatile as climate change bites, the risk of flooding will increase and we are constantly working to develop and improve our flood warning methods.'

For more information about the Environment Agency's flood-related work, please visit: www.environment-agency.gov.uk/flood

FUTURE AIMS

- 1 Improved resilience.
- 2 Increased availability.
- 3 Increased take up.

Know your codes

1. Flood watch

What it means: Flooding of low lying land and roads is expected.

What to do:

- Monitor local news and weather forecasts.
- Be aware of water levels near you.
- Be prepared to act on your flood plan.
- Check on the safety of pets and livestock.
- Charge your mobile phone.

2. Flood warning

What it means: Flooding of homes and businesses is expected. Act now!

What to do:

- Move cars, pets, food, valuables and important documents to safety.
- Get flood protection equipment in place.
- Turn off gas, electricity and water supplies if safe to do so.
- Be prepared to evacuate your home.
- Protect yourself, your family and help others.
- Act on your flood plan.

3. Severe flood warning

What it means: Act now! Severe flooding is expected with extreme danger to life and property.

What to do:

- Collect things you need for evacuation.
- Turn off gas, electricity and water supplies if safe to do so.
- Stay in a high place with a means of escape.
- Avoid electricity sources.
- Avoid walking or driving through flood water.
- If in danger call 999 immediately.
- Listen to emergency services.
- Act on your flood plan.

4. All clear

What it means: No further flooding is expected. Water levels will start to go down.

What to do:

- Keep listening to weather reports.
- Only return to evacuated buildings if you are told it is safe.
- Beware of sharp objects and pollution in flood water.
- If your property or belongings are damaged, contact your insurance company. Ask their advice before starting to clean up.



101 partnerships

The Northumbria 101 Partnership was a collaborative approach between Northumbria Police, Northumbria Police Authority and the 12 local councils across Northumberland and Tyne and Wear to deliver citizens convenient access to a range of non-emergency services via an easy-to-remember three digit number (101). The innovative 24 hour/ seven-day-week multilingual service linked users direct to action and information, serving around 1.4 million people over 2,200 square miles.

The Labour government made a commitment in its 2005 election manifesto to introduce a single non-emergency number to tackle anti-social behaviour (ASB) and other community safety issues in England and Wales. In July 2006, the Northumbria Partnership launched 101 to citizens across Northumberland and Tyne and Wear. The partnership was made up of Northumbria Police, Northumbria Police Authority and all twelve local councils across Northumberland and Tyne and Wear.

Through 101, the Northumbria Partnership provided welcome and effective service to customers, offering a single point of contact to report specific non-emergency events, where they could get information and action. At the same time, the 101 system gave each partner organisation relevant intelligence about ASB and community safety issues in their geographical areas.

From being awarded funding of £4.281 million, the service was live in little over six months due to stringent project management and close public/private partnership working.

The overall aim of the system was to raise confidence in, and improve access to, public services, with more service requests being fulfilled, or first steps taken towards fulfillment on first contact.

The partnership provided the 24x7 101 service through a web-based system, joining three partners' contact centres and 14 service deliverers together to respond to calls from customers within a distributed contact centre model.

Some partners took calls and delivered services; others just delivered services. All users had a personalised dashboard. Calls were taken by highly-trained advisers who recorded all the relevant details. The system highlighted all the necessary information about a particular service on offer in response to the customer's issue. The customer was given the following information so that they could track the progress of their request:

- a unique case-tracking number;
- the organisation(s) responsible for dealing with their issue;
- the time scale for completion.

The service request was then transferred, using secure XML messaging technology, to the relevant partner organisation(s), where service delivery advisers organise jobs to be dealt with, within an agreed timescale and in confidence, and provide feedback on the appropriate actions.

Scope

The size and diversity of the partnership area's communities alone meant development of a single electronic service catalogue was a substantial task. Further, the diversity of technology across the partnership meant the 101 system had to be flexible

enough to over arch all the systems. Once achieved, the system and the service catalogue were easy to update, amend and edit.

Combining police and local authority process to provide one single, shared service meant a robust project management approach was vital to hit go-live and other key milestones. Although already working together in many aspects of customer service, actual day to day activity needed clear, process-driven structure.

Integrity

Early production of a working prototype ensured that the 101 service business processes and requirements could be quickly tested by users as the system was designed.

During the design phase, requirements were captured from all involved parties. These were brought together into a detailed system design by the project team, which comprised representatives from Northumbria Partnership, Sopra Group and IIZUKA Software Technologies.

Multiple work-streams were tightly coordinated across multiple locations to ensure that the project was delivered on time and to budget. A very focussed and dedicated project team worked together to deliver a high quality solution in the form of the Northumbria 101 system. The entire project was managed under Prince 2 principles.

Benefits realised

20 months on from an on target, on budget go live, 101 enjoyed an 87 per cent customer satisfaction rating, accepted around 470 calls a day, on average, and had received over 285,000 calls, having overcome the initial barriers to success.

The 101 information system enabled more joined up, co-ordinated service delivery between police and local councils. A single incident, which may require the attention of several of the service delivery partners, could be easily shared and centrally updated, preventing duplication of effort and facilitating true partnership working.

Service requests were more quickly processed and allocated using the new system. A key objective of the project was to reduce the effort involved in getting incidents logged; in order to give service delivery partners a higher percentage of their target timeframe to respond to a service request. Using the 101 messaging system, service requests could now be exchanged between systems in 'real-time'.

101 SERVICE

The scope of the 101 service was developed through research with the general public, and in consultation with a wide group of service stakeholders, to efficiently combat the most common anti social behaviour (ASB) and community safety issues, for example, vandalism and graffiti; noise nuisance; abandoned vehicles, rubbish and litter; drunk and rowdy behaviour, and drug related ASB.

The fact that the system is location independent (available over the internet) and conforms to Home Office Data Standards, has opened up new possibilities for mobile working and instant data access / feedback live from an incident.

The Northumbria Partnership also implemented a programme of system improvements including:

- facilities to allow service providers in the field to view enquiry details on their mobile devices and directly inform the adviser of progress;
- additional partners – AVAIL vehicle recovery scheme has joined as a service delivery partner;
- improved / expanded 999 escalations to fire, coastguard and ambulance services.

Benefits

The overall aim of the Northumbria 101 system was to raise confidence in, and improve access to, public services, with more service requests being fulfilled, or first steps taken towards fulfilment, on first contact.

The 101 initiative offered multiple benefits to the Northumbria Partnership's

citizens and service providers:

Through 101, the Northumbria Partnership gave local people:

- An easy to remember number, available 24/7 with multilingual capability, thereby reducing inappropriate contacts and similar confusion surrounding previous multiple access channels.
- 101 was more effective and efficient and offered one-call resolution, in most cases, the call takers could immediately direct requests for service to the most appropriate organisation(s). The allocation of a unique customer reference to each caller, meant that every event was tracked to resolution increasing customer satisfaction.
- People knew what to expect from 101, the police and their council, as every caller was provided with an approximate timescale for resolution, and informed as to which organisation would deal with their request.
- Northumbria 101 has introduced clarity, structure and transparency to the reporting and resolution of ASB and community safety issues. As a result, more incidents were reported and effectively resolved, resulting in a cleaner, greener environment.

Through 101, the Northumbria Partnership:

- helped partners make further improvements to service delivery, through enhanced service tracking and performance management;
- provided opportunities to share services across the partnership;
- opportunities to invite other service industries to support existing partners or provide services direct to citizens.

Figures provided as of July 2007.

24/7 HOT LINE

The Northumbria 101 single non-emergency line went live in 2006 but in November last year the Government announced that funding would stop and the Northumbria Partnership came to an end on the 31st March 2008.

Sunderland and Newcastle city councils, have now decided to take over its infrastructure and turn it into a

council hot-line for residents in both cities. It will be still be a 24 hour line and is planned to go live at the beginning of April. The service, which has still to officially get a new name or number, will be for problems and issues that need a local authority and not a police response.



Share and share alike

The Environment Agency carshare scheme, funded by the internal carbon reduction programme, has been developed as part of the liftshare network. EA carshare is unique as it is the first scheme of this kind in the UK whose primary purpose is to cater for business travel.

As a large public body with over 12,000 staff located across England and Wales this is the first time a car share scheme has been introduced on this scale and for this purpose.

It is structured to enable regional and office specific monitoring and reporting and enables users to dynamically view their carbon dioxide (CO₂) savings while also allowing managers to view this by area, region and overall.

Incredibly easy

Using the system is incredibly easy. EA staff simply visit www.eacarshare.com, select which region they work in, select which area they are based in and then fill out the simple registration form. Registration only takes around five minutes and only asks for basic contact details and details of any recurring journeys they make. Once details have been entered each member is sent an activation email to confirm the details they have provided are correct.

The search functions are unique to the liftshare network. The system lists the matches in order of their relevance, with the most appropriate first. As well as individuals being able to search within their work groups, there is an advanced search option to

allow matches with any other registered EA member and a further opportunity to search the entire liftshare community.

Using the system is very easy. EA staff simply visit the car share website, select which region they work in, select which area they are based in and then fill out the simple form in order to register.

allow matches with any other registered EA member and a further opportunity to search the entire liftshare community.

Users can register a journey by using street names, towns, organisations and post codes. The system will match waypoints within a journey in addition to matching the whole journey. The system will notify members of matches to their specified journeys via email (a telephone option is available). Matches are made using a complex system of mathematical algorithms that take into account latitude and longitude, post code data and data such as street names.

The details of members within the Environment Agency group are not visible to those on the national database unless individual members choose to allow their journey information to be shown publicly.

158 tonnes

Though it has only been running since 2 April 2007 www.eacarshare.com has already saved almost 517,462 miles, 158 tonnes of CO₂ (a minimum of 3 tonnes of CO₂ have been saved through business shares). As more people sign up and the chances of finding matches increases these savings look set to rise dramatically.

Technical overview

EA carshare is an internet based system hosted and managed by a third party www.liftshare.com using a dedicated server machine running Windows Server 2003. This allows all users with internet access to be able to use the scheme and the

OUTLINE

This project was set up as part of an initiative to identify key projects that could help the agency to reduce its carbon 'footprint'.

The aim was to establish a system that would allow us to make car sharing easy – where it was necessary to use a car to travel to/from 100 sites and meeting venues.

Various local schemes existed but were focussed on commuting rather than business travel. Having a standard system across the organisation gives all staff the opportunity to car share regardless of their office location or which department they are in. The new scheme monitors shared business miles and provides local data on performance for managers to monitor how well the organisation is doing against its stringent mileage targets.

information hosted on the site:

- Specification: two dual-core Intel Xeon 3.4 GHz, 8GB RAM, 400GB Raid 5 (4 x 15,000 RPM SAS).
- Web content served by Microsoft IIS 6.0 with dynamic content support from SQL Server 2005, both running locally.
- Browser support is available for all known platforms and the site is built to meet high level web standards.
- The database and search facility is a bespoke system designed and built by liftshare. Access to user accounts and specific group member details is limited to functions via the liftshare administrator's web pages.
- Stored procedures are used to query the user database in order to locate potential matches.
- To establish contact a member must be given access to the URL, issued by lift share, using a standard browser.
- The site is built to meet the web accessibility of AA standard.

Using the generic system offered by liftshare, additional software development work was undertaken to allow a distinction to be made between savings being made for business journeys and the existing benefit of matching commuting journeys. The directory pages were set up to enable office/regional specific monitoring.

BREAKDOWN OF SAVINGS

Journey purpose	Tonnes of CO ₂	Money saved	Miles saved
Commuting	172	£56,091	560,912
School run	0	£12	115
Business trip	5	£1567	15,669
Event travel	0	£28	277
Leisure	1	£205	2,047
Not specified	0	£0	0

The EA scheme is operated by liftshare, a UK-based company that was set up Ali Claburn. He initially had the idea after travelling around Germany in his gap year using a similar scheme. When he returned to the UK he tried to find something akin to the German scheme, in order to save money when travelling to and from university, but found that no such idea was in place.

Fresher's fair

With the help of some fellow students he then set about creating the company that became liftshare. He started by promoting the idea to his fellow students at fresher's fairs, but they were reluctant to pay the £10 joining instructions. He eventually dropped the joining fee and the scheme took off. However, although his idea was now a reality he had no way of generating income from it.

The Glastonbury effect

Then in 1999 Ali was contacted by the organisers of the Glastonbury Festival.

They asked if liftshare could set up a branded scheme for festival goers to share cars in order to attend the event. The idea was not only to reduce the number of journeys being made from all over the country but also to reduce the amount of cars passing through the Somerset town.

The scheme was a success and set liftshare on to the model it uses today. Registration is free to anyone who wants to use it. The company then provides bespoke services to paying companies - such as the Environment Agency.

After this initial success the company continued to attract further interest and in 2000 it secured its biggest client - providing a scheme for a group of businesses in South Gloucestershire. Liftshare now works with over 600 different clients around the UK.

Car sharing is also good for the environment. It is estimated that the liftshare schemes have saved around 21 million car miles per annum, reducing CO₂ emissions by 4,000 tons a year.

www.liftshare.com

BENEFITS

In 2005/06 the Environment Agency's annual business mileage was 35 million miles. This produced 8832 tonnes of carbon dioxide, of which 82 per cent was from single occupancy journeys. The cost of these miles to the organisation in terms of expenses claims alone was around £6 million.

The EA realised that it could save around £400,000 a year if it could make just 10 per cent of the single-occupancy journeys shared journeys. This would go up to £1 million if it made 22 per cent shared journeys.

Clearly there were massive financial and environmental incentives to make this work, as well as ensuring that it

was managing its reputation as an environmental body in doing everything it could to reduce its carbon footprint and to show other organisations that it can work.

This project is a real life example of how on-line technology can enhance people's lives and help the environment. This project also demonstrates the power of the internet as a communication and matching tool.

Its function is matching individual travel plans to facilitate actual car sharing, saving the organisation money, reducing congestion and CO₂ emissions, and facilitates social and business networking.

USEFUL LINKS

www.bcs.org

www.bcs.org/awards

www.bcs.org/government

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