



mobile working report

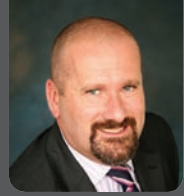
A special report prepared by **NDL** - Spring 2010

Report
produced in
association with



foreword

by **Ken Eastwood** - Founder, Public Sector Nomads
Assistant Director, Barnsley MBC



I'm delighted to support the NDL Mobile Working Survey for 2009/10. The results of this report illustrate just how important mobile, flexible and new ways of working enabled by technology continues to be in the public sector. As the founder of Public Sector Nomads, the successor organisation to Project Nomad, I am encouraged by the take up and development of new ways of working and by how much has been achieved to improve service delivery and efficiency.

However, as I think the survey shows, there is still a lot more we could and should be doing to make the most of the innovation available to us. As the sector enters a period of significant financial constraint it is important that we look to technology and innovation to provide solutions not only to the way we deliver our services but also to redefine the very shape and nature of those services. Radical new approaches are required to meet these challenges, not simply continuous incremental improvement with the occasional savage cut in funding.

With the right leadership and some support and encouragement, these pressures could unlock the obstacles to change and lift the barriers that have prevented the widespread adoption of mobile and flexible working across our public services. We have enough learning to be confident in the technologies and to understand the issues involved.

We now need, I would suggest, to seize the opportunity before us and to radically

re-design how we work. Now is the time for game-changing innovation on a scale we haven't seen in a generation or more. Now is the time for all elements of the public sector to collaborate and work together on shared solutions and the promotion of best practice. Very much an area where Public Sector Nomads can add value.

I would like to thank NDL for including questions in this year's survey to help frame the future direction for Nomad. Public Sector Nomads has arisen from the many positive responses and suggestions and will launch shortly with renewed vigour and refreshed vision. Thank you to all respondents. With the support of enthusiastic and like-minded organisations and suppliers, such as NDL, we hope to build and facilitate a dynamic and interactive online community providing support and guidance to all involved in new ways of working. I very much hope you will play an active part.

A stylized, handwritten signature of Ken Eastwood in pink ink, written in a cursive script.

introduction

This is the second time NDL has published a standalone survey into the adoption and use by UK local authorities of mobile technology. Prior to that, it formed part of our more extensive survey into the role of integrated information technology, but the rapid growth of the use of field-based mobile devices prompted a separate report.

This year's survey continues many of the themes of previous years, and in particular looks at the adoption and use of mobile technologies in the two key areas: Personal Information Management (PIM) and Line of Business (LOB), comprising process applications rather than personal 'apps'. It revisits, among other areas, the distribution of mobile technology, the most popular applications, its benefits, and the barriers to its use. However this year we have extended the survey to drill down even deeper into the specific LOB applications where mobile technology is now being used.



Survey format and metrics

The survey was conducted in collaboration with Public Sector Forums, which hosts a web-based community for public sector professionals. It was carried out online between the beginning of October and the end of November 2009. In total there were 98 respondents: the majority (88 per cent) were from local government, with others from housing associations and bodies such as the police. Eight local authorities submitted multiple responses but, as these respondents work in different areas of their organisations, we have chosen to retain this data in the survey.

Unless stated, the graphs are based on the number of responses received and are therefore calculated as a percentage of 98; we have clearly indicated where this is not the case, in particular where we have asked for multiple answers. It should be noted that this data set does not comprise the same respondents as the previous report and therefore it should be regarded as an overview rather than an exact comparison.

We would like to take this opportunity to thank everyone who took part in the survey, which we believe delivers a very interesting snapshot of the uptake of mobile technology in the public sector.

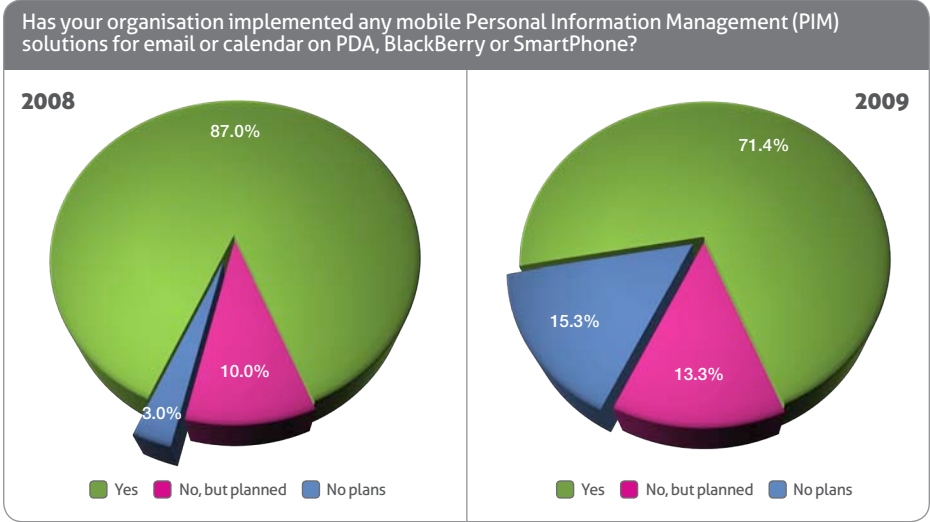


Key findings

- › Use of mobile technology for Personal Information Management is heavily restricted to senior management level and is not filtering down into other areas of the organisation.
- › The number of Line of Business applications is growing, as is the range of applications for which mobile technology is being used.
- › Mobile working is without doubt supporting the service transformation agenda, in particular by driving efficiencies and improving service delivery.
- › Environmental benefits are becoming more apparent.
- › Cultural change and integration of existing applications are still the greatest barriers to successful mobile working.
- › There has been very little improvement in network coverage.
- › The current economic climate is encouraging rather than reducing mobile working projects.

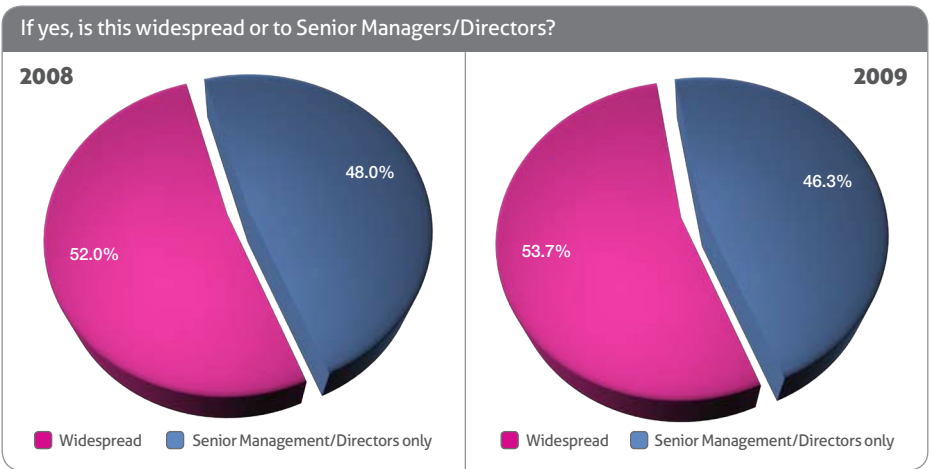


Personal Information Management (PIM) usage for mobile email and calendar



We once again asked if respondents had implemented any mobile PIM solutions for email or calendar on PDA, BlackBerry or Smartphone devices. Despite the ubiquitous use of email and electronic calendars for office-based staff, it is astonishing that this year's responses to this question show a fall in mobile PIM implementations.

In total just over 70 per cent of respondents have a system in place compared to 87 per cent in 2008. There is a rise in those in the planning stage (up from 10 per cent to 13 per cent). The most disappointing result however is the increase from three per cent to 15 per cent of those who have no plans to implement a mobile PIM system.

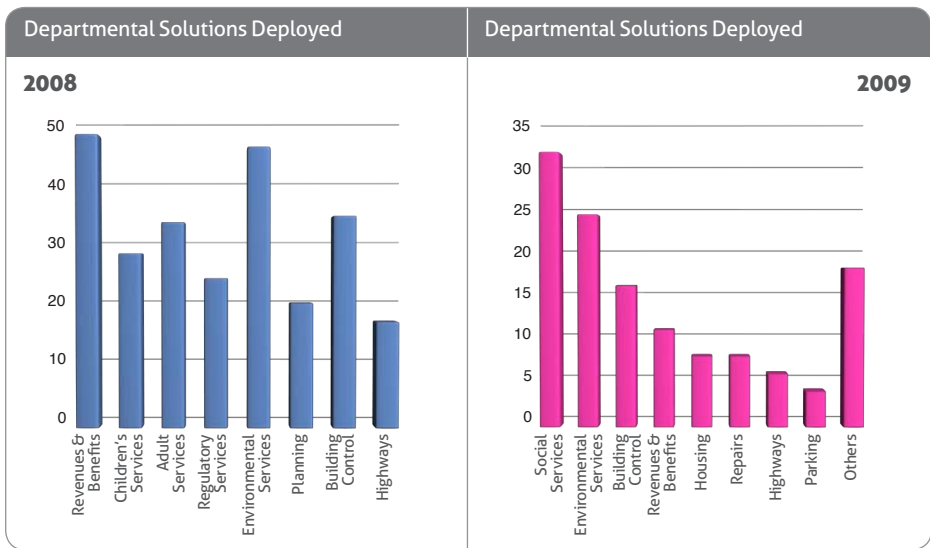


In addition, there are still a significant number of PIM implementations restricted to directors and senior managers (46 per cent compared to 48 per cent in 2008). Thus a majority are missing out on applications which could make their working life more efficient.

With the increasing availability and reducing cost of suitable PIM devices, this elitist approach is very frustrating. Indeed, there is an argument that it is lower levels of public sector organisations which would derive more benefit from remote access to email and calendars: these are the people who are spending time away from the office and working out in the community.

In addition, one of the problems widely identified with this new way of working is that it generates feelings of isolation: providing tools to facilitate communication for remote workers would reduce this risk.

Line of Business (LOB) application usage



In the last report we were prescriptive when asking about LOB applications. The results clearly demonstrated the growing use of mobile applications to enable remote workers to access and update information when working away from the office. It also showed that the most popular area for mobile automation was Revenues and Benefits, closely followed by Environmental Services.

In this survey we decided to give more freedom to respondents, to enable us to drill down more deeply into the areas benefiting from mobile deployment. We therefore allowed respondents to provide multiple, unprompted answers.

Seventeen respondents (17 per cent) list general 'flexible working' projects. Looking at the detail of these, many are 'corporate' projects being rolled out across the organisation.

This includes descriptions such as:

"All departments; BlackBerry roll out to members, managers and field staff."

"Corporate five-year change programme involving mobile flexible and home working."

"Council-wide mobile working project; 1800+ users."

As we will see later on page 15, 74 per cent of respondents would prefer to see a corporate-wide implementation for mobile working. It is therefore disappointing that only 17 per cent describe projects which are actually taking this approach.

Of the rest, there is a wide range of projects either taking place or planned. However, these are within separate, siloed departments, thus demonstrating a piecemeal approach to mobile working. In our experience, this is often supported by a mobile 'champion' in a specific department who drives through a project; sometimes the success of this small project triggers a wider corporate policy for future implementations.

Anecdotal evidence proves that a greater return on investment is achieved through a corporate approach. It drives savings on acquisition of infrastructure and devices as well as reducing the overhead for managing multi-device projects for remote workers. Taking a siloed approach leads to costly duplication.

Starting with the largest number of respondents, the projects listed are:

Social Services

This generated significantly more responses than any other category, with 31 projects, illustrating the priority placed on driving better services into the most needy in the community. Responses can be split into three areas:

- **Adults' Social Care:** nine projects, of which six are live. Users range from 31 to 250, with Tablet PCs the most prevalent device.
- **Children's Social Care:** seven projects, of which six are live. Users range from five to 300, with tablet PCs and laptops the most popular devices, enabling full broadband access to central networks.
- **General Social Care:** 15 projects of which only six are live. Users vary from three to 20. Mobile financial assessments feature widely, with tablet PCs once again the favoured device.



Environmental services

Respondents list 24 projects, evenly split between fully operational or in the planning stage. Projects are taking place across all areas, from missed bins through to pest control and on to environmental wardens. A wide range of devices are being used, underlining the diversity of projects undertaken.

Notable projects reported include:

- ❖ 80 users for Streetscene operations integrating with CRM (planned).
- ❖ 50 users for remote job dispatch.
- ❖ GPS system for locating abandoned vehicles.

Building Control

Sixteen projects are listed, of which only four are live. Users number 10 upwards, with many projects enabling site working for officers. Tablet PCs and laptops feature widely, perhaps because of the complexity of some of the information involved, with some use of PDAs for remote dispatch of job details.

Revenues and Benefits

This area no longer leads the number of applications reported, with only 11 listed by respondents. Of these, seven are already implemented. Responses demonstrate a trend towards low numbers of users, usually one or two. Projects are mostly either for inspections or for home working, and Tablet PCs are the most prevalent device, illustrating the more complicated nature of the work undertaken.

Housing

Only eight projects are reported, of which five are live. The majority are for housing inspections and repairs, with one authority commenting that its specific project is "reducing time to turn around repairs, reducing voids and increasing lettings". Hand-held devices are most prevalent, with number of users ranging from 10 to 50.

Repairs

Eight projects are reported, with only three live. Large projects feature, with deployment across workforces: for example, one project comprises 100 users receiving job tickets on handheld devices; another describes 65 users of handheld devices receiving details of property maintenance jobs whilst out and about.

Highways

Six projects are listed, all of which are live. Highway maintenance is stated in all cases where respondents describe projects. Number of users range from 15 to 25.

Parking

Only three projects are reported: in all cases these involve the use of PDAs in connection with parking enforcement.

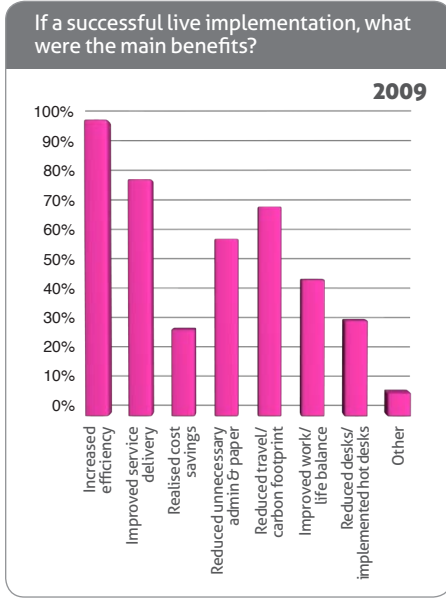
Others

Another 18 projects are listed which do not fit into any specific category. These include:

- ❖ **Playground monitoring:** three users using PDAs.
- ❖ **Asset mapping:** handheld GPS to map locations of street litter bins; two users.
- ❖ **Fire hydrant survey.**
- ❖ **Contact centre:** enabling staff and web users to log contact enquiries through PDAs and website.



The benefits of mobile working



In this survey we asked respondents to list all the benefits they have derived from mobile working rather than just identifying one. This gives a clearer picture of the full rewards of a mobile implementation.

Of the 98 respondents, 70 per cent now have successful live implementations. As in 2008, the strongest benefit is increased efficiencies, cited by a staggering 94 per cent. This is followed by three quarters of respondents highlighting improved service delivery, further justifying the case for mobile working as part of the service transformation agenda.

Two-thirds of respondents highlight reduced travel/carbon footprint as a key benefit. This dovetails with central and local government action to reduce carbon emissions and illustrates how mobile working can contribute. In addition, rising fuel costs are another key factor in supporting a move to mobile working.

An intangible benefit for staff is illustrated by 43 per cent citing an improved work/life balance, with mobile working enabling workers to manage their time more effectively and spend more time at home. This also reflects in the benefit cited by 30 per cent that mobile working reduces the need for desks or increases the use of hot desks, which in turn cuts the cost of office space.

While 'realised cost savings' is only cited by 27 per cent, it should be remembered that all of the benefits listed save costs. This may not in all cases be a cashable cost saving; alternatively, it may be that resources have been cost-effectively redeployed elsewhere. Our own anecdotal experience suggests that, while the set-up cost of a mobile project falls within year one, the long-term cost savings start to be realised four to six months after the project has gone live. With many of the respondents involved in new projects, it is likely that cost savings and ROI will generate more responses as projects mature.

Some additional comments made by participants take the benefits achieved even further:

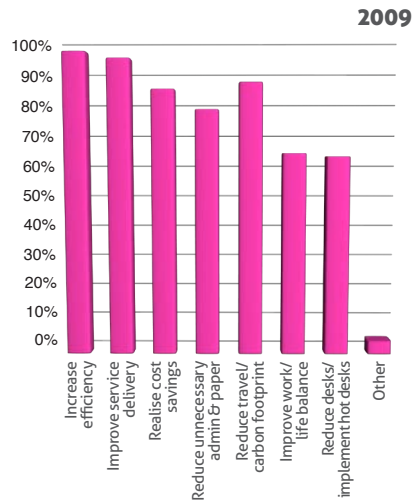
"We have seen increased productivity in that secondary services are now undertaken as a result of efficient delivery of primary services."

"There is an improved visibility of front-line services to the citizen."

"There is still more work to be done to fully realise benefits and savings."

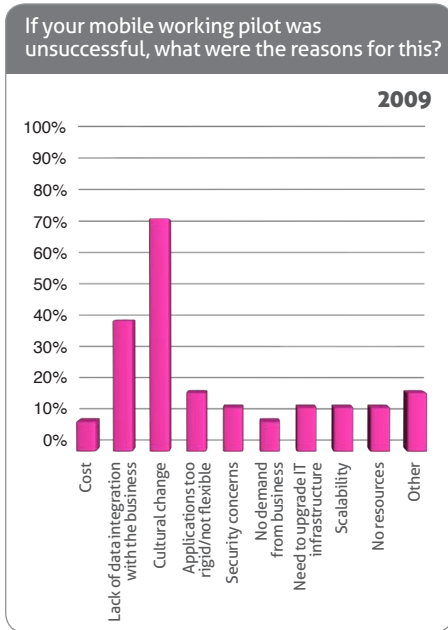
"Improved staff motivation."

What benefits does your organisation hope to realise from the implementation and growth of mobile working Line of Business applications?



Respondents who do not yet have a live project were asked about their aspirations for mobile LOB projects. These aspirations closely mirror the benefits already reported by those with live projects. The one area where there is a marked difference however is the hope that it will 'realise cost savings' (84 per cent hope as opposed to 27 per cent 'have realised'). As mentioned above, this may be explained by the fact that cost savings are driven by many of the other benefits respondents recognise they have achieved through mobile working.

The barriers to mobile working

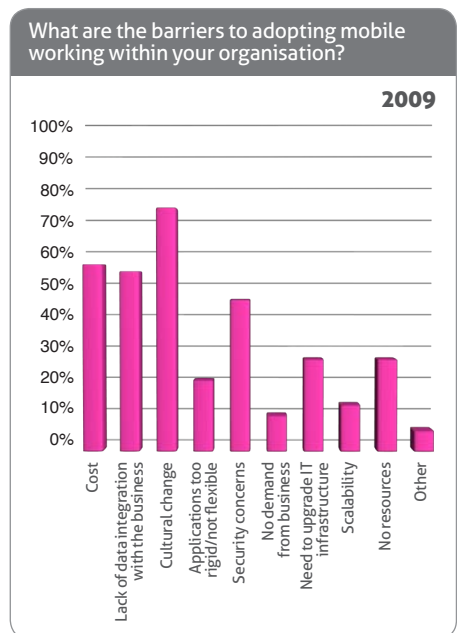


The benefits of mobile working are apparent from the answers in the previous section. However, some projects inevitably still fail. According to our data, almost 25 per cent of respondents have experienced a failed mobile project. It's frustrating that, as with our survey in 2008, the most common reason for failure is the difficulty in achieving the cultural change needed to support mobile working (70 per cent).

This difficulty in achieving cultural change is not simply a problem once a mobile project has been launched; it is preventing mobile projects taking place. When asked "What are the barriers to adopting mobile working in your organisation?", cultural change was cited by a similar percentage of respondents (73 per cent).

Adoption of a new technology and becoming familiar with it takes time; in addition, new working methods or business processes need time to settle down within an organisation. Unfortunately, when introducing mobile working, organisations will sometimes impose both at the same time. It is not surprising therefore that there is resistance, delay or failure when a mobile working project is introduced or mooted in this way.

In our experience, the best path to achieving success is to introduce new mobile technology which mirrors or exploits existing business processes, thus lessening the impact of change.



There is far more chance of success – and of delivering a better return on investment – through selecting a technology which operates on a familiar device and can use existing business processes. If it can also be adapted over time to take on board new applications and methods of working, preferably using in-house expertise (rather than relying on third-party support), there is even more chance of long-term success. In short, users should have time to become 'acclimatised' before new processes are introduced.

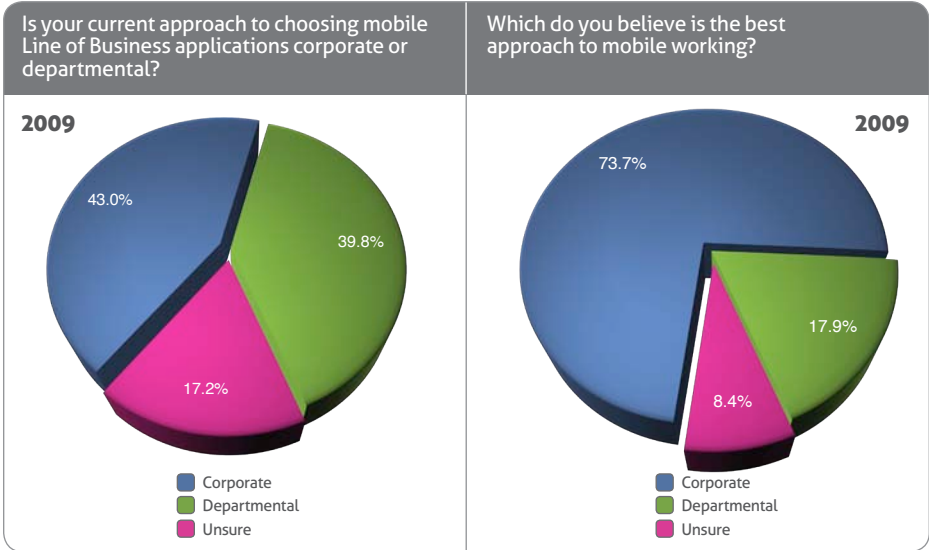
The second most common reason for project failure is lack of integration with business applications (39 per cent); 54 per cent also cited this as a barrier to adopting mobile working. Our experience shows that successful and cost-effective integration between existing business applications and mobile working is possible: it has been achieved by the public sector through using flexible integration technology which can be used across multiple applications. This would overcome this barrier or prevent it being the reason for project failure.

When questioned on the barriers to adoption rather than reason for failure, the second highest reason is cost (56 per cent); however the results show that this fear is unfounded, as only eight per cent of respondents cited it as a reason for a project failing. Cost is not a problem once mobile working is implemented and, as illustrated on page 11, many of its benefits drive significant cost savings, which will quickly bring a return on investment. Those considering adopting mobile working should therefore not regard cost as prohibitive.

There is considerable concern among the second group over security issues, with 45 per cent citing this as a barrier to implementing mobile working. Once again, this fear is unfounded as is not a major reason for project failure, with only 13 per cent stating it contributed to the failure of a mobile working implementation.



Corporate v departmental approach

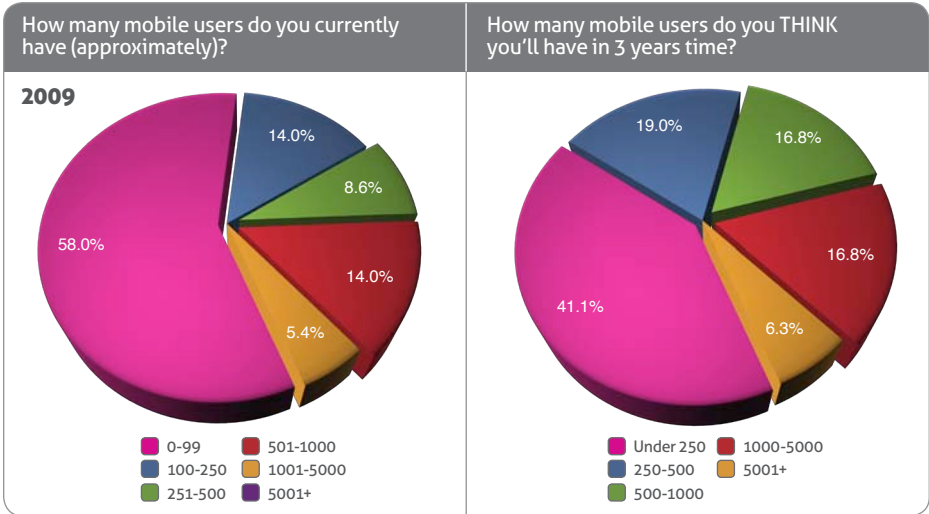


We asked two separate questions in connection with taking a corporate or departmental approach to implementing mobile working: current approach, and what respondents regard as the better type of implementation. The current approach is almost evenly split (43 per cent corporate v 40 per cent departmental), but the vast majority (74 per cent) believe a corporate strategy is better.

Our experience shows that introducing mobile working at a corporate level drives more success and lowers costs. With a corporate strategy, there are vast economies of scale and greater opportunities for integration into the back office, which immediately address the two key barriers to mobile working highlighted on page 13. The corporate approach also drives greater flexibility, enabling officers in the field to work remotely on a range of applications rather than being restricted to one siloed application.

If a departmental approach is adopted, it may or may not have the capability of being rolled out to other departments. Solutions exist which enable a top-down strategy based on a corporate platform, with the capability of integrating across applications and into existing back-office systems. Further intrinsic flexibility is achieved by adopting solutions which are technology-agnostic, enabling the use of any device and network.

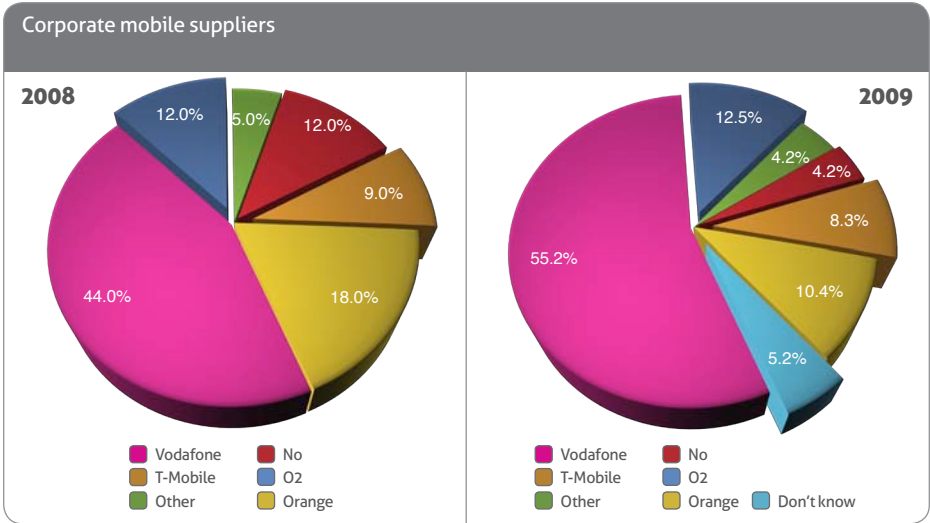
Mobile usage



The latest survey illustrates a growth in the number of mobile projects with high numbers of users. Although still in a minority, 42 per cent of projects have between 100 and 5000 users, with a significant number (14 per cent) having between 501 and 1000 users. The highest growth area since last year is in 1001-5000 category, rising from 1.5 per cent to 5.4 per cent: a small percentage but a significant rise.

However, when looking at predicted usage in three years' time, some exciting trends can be seen: the majority of projects (59 per cent) are likely to have more than 250 users, perhaps indicating a move towards corporate projects.

Data networking suppliers



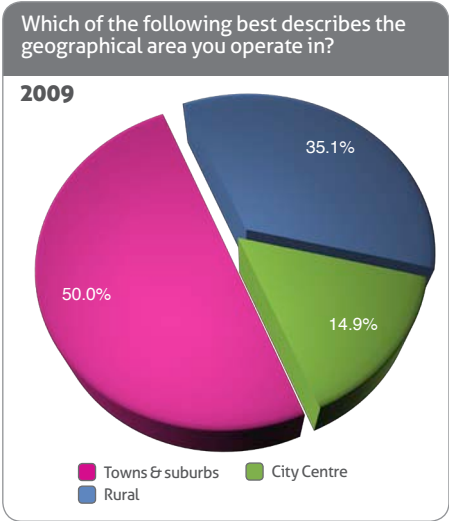
Network reliability is critical to the success of a mobile platform. We therefore asked respondents to indicate whether there is a corporate policy for the supply of mobile networks and devices.

As we saw in 2008, Vodafone continues its domination of the public sector mobile marketplace, with more than half of respondents (55 per cent) as customers, showing the value of their original exclusive arrangement.

This is up by 11 per cent on last year. Other suppliers who are now involved in the OGC Mobile Solutions Framework feature but are taking a far smaller share of the market. Orange seems to be the biggest loser, with its share down from 18 per cent to 10 per cent; O2 and T-Mobile remain the same while BT – also included in the OGC framework - does not feature at all.

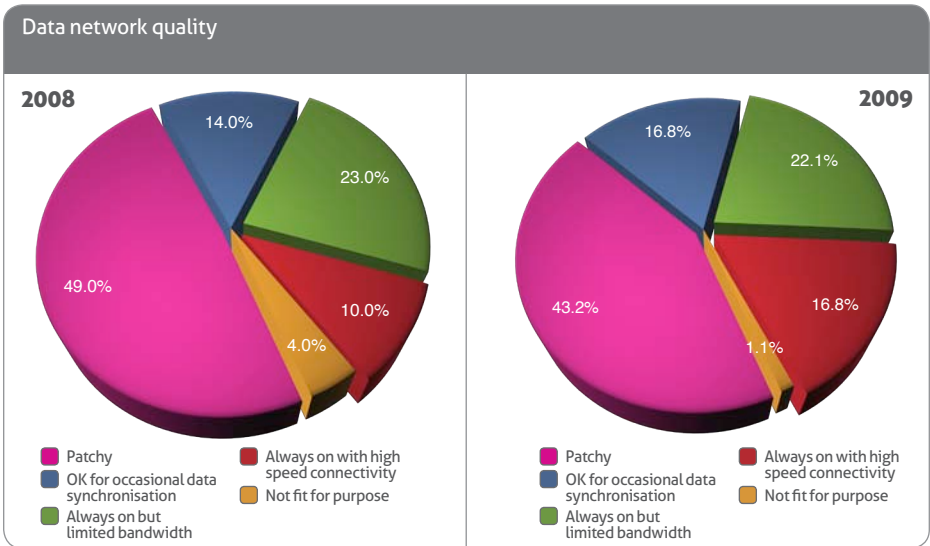


Network quality



To provide context to the question on network quality, we asked respondents to indicate the type of geographical area they operate in. Almost two thirds (65 per cent) are in city centres, towns or suburbs, where one would expect a more robust signal.

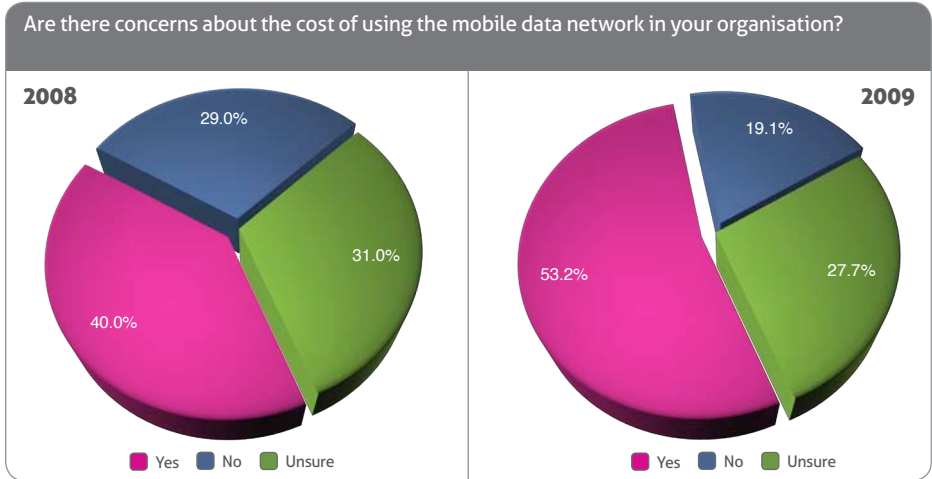
We then asked about network quality itself. As with last year, the results are disappointing. The largest number (43 per cent, down from 49 per cent in 2008) describe it as patchy: this cannot simply be explained by the geographical split outlined above.



More encouraging is that 17 per cent (improving from 10 per cent last year) describe it as always on with high-speed connectivity. However a significant proportion (39 per cent) describe it as either always on with limited bandwidth or OK for occasional data synchronisation, which is up two per cent on last year's results. Therefore in total 83 per cent are not receiving a robust signal.

It's clear that, over the last year, there has been very little improvement in network quality and it is still not supporting effective browser-based or always-on mobile working. This therefore makes a powerful argument for adopting a different approach: systems which, rather than being always on or browser-based, instead enable users to synchronise at their convenience when they are in a strong signal area.

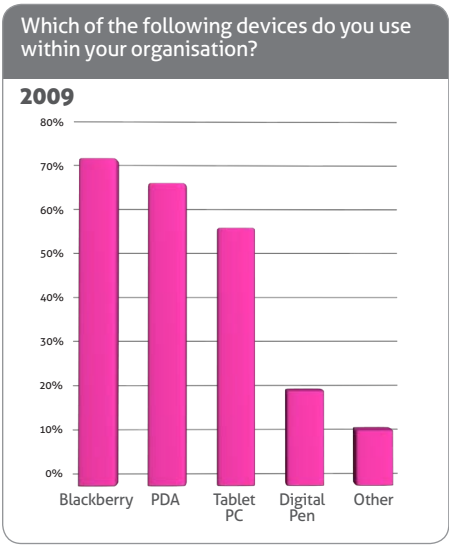
Data costs



We have already examined the impact of the cost of implementing mobile working. However, we also felt it would be useful to investigate whether network costs are having an impact. As the chart shows, more than half (53 per cent) are concerned about the cost of using a mobile data network, up from 40 per cent in 2008. This increase could be attributed to current concerns over the economy and the greater priority now placed on cost efficiencies.

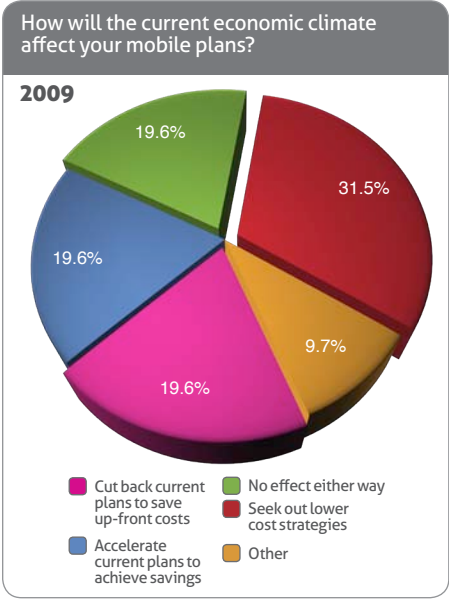
In our experience, the cost savings made by implementing mobile working are significant, and indeed this is supported by the benefits reported on page 11. It's therefore important to remember that network costs should be more than outweighed by the significant cost savings driven by mobile working.

Device use



No authority is exclusively using one device, demonstrating that no one device fits all. There is a significant showing for hand-held devices such as BlackBerry (69.5 per cent) and PDAs in general (64 per cent). Tablet PCs are cited by just over half. This perhaps illustrates that many of the projects being rolled out involve smaller amounts of data entry, making smaller devices more suitable.

Economic climate



Finally, we asked respondents whether the current economic climate has impacted on mobile plans. The results are encouraging, with almost 20 per cent seeing mobile working as a means of coping with the situation and stating they are in fact accelerating implementation. A further 20 per cent see it as having no impact at all. Just over 30 per cent are looking at lower-cost strategies but are still continuing with their plans.

Twenty per cent stated that they are cutting back on their plans. We believe this is a false economy: they should instead follow the example of other respondents who regard mobile working as an effective tool in these difficult times: saving costs, increasing efficiencies, and ultimately driving better services. With this clear demonstration of the benefits and ROI from those already involved in mobile projects, there is an overwhelming case for investment in mobile working within the spend/save agenda.



Once again, we would like to take this opportunity to thank everyone who took part in the survey, which we believe delivers a very interesting snapshot of the uptake of mobile technology in the public sector.



Organisations across the public and private sectors are already reaping the benefits of NDL's awi^{SX} integration server technology. Whether it's joining back-office applications together, or linking to and from the front-office, awi^{SX} will dramatically improve business processes and workflows, drive efficiencies, cut costs, reduce errors and extend the ROI of existing applications.

key benefits

› **Integrates all applications using a single solution**

One product takes the place of multiple disparate APIs, saving the time and cost of acquiring multiple adaptors.

› **Access and update data in any business application**

Provides real-time, two-way integration for most popular front-office and back-office applications. One application is automatically updated when data is entered into another.

› **Drives efficiencies**

No need for manual duplicate data entry, reducing the chance of errors; back-office staff can then be deployed more effectively.

› **Reduces overheads**

Works in the same way for every application, saving time, and reducing training and ongoing support overheads.

› **Improves workflow**

Saving time, money and resources.

› **Return on investment**

Swift payback through driving immediate savings, and extends the ROI of existing applications.



True mobile working needs access to data and applications held centrally. awi^{MX} unlocks your back-office applications and extends them out to your remote workers, enabling on-the-spot access and updates. As a result, you can drive efficiencies, cut costs, reduce travel and enhance customer services.

key benefits

› One platform solution

A single awi^{MX} server supports multiple mobile applications, workforces or departments, and a wide range of devices including SmartPhones, PDAs and Tablet PCs.

› Efficiencies and cost savings

Extends the back office to the field for real-time access and on-the-spot updates.

› Secure

Strong data encryption for all communications; management and audit controls for data storage ensures integrity.

› Robust communication

Assumes no present connection - synchronise immediately or when a signal is available.

› Licensing

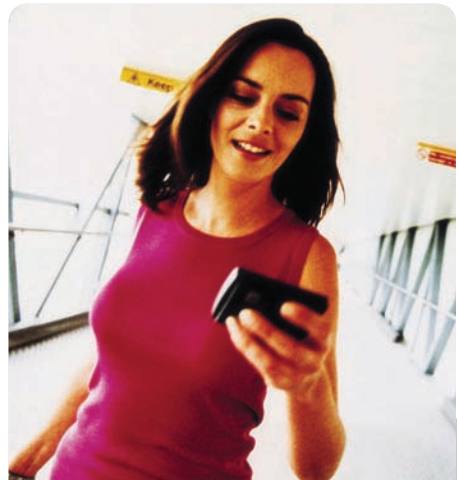
By server rather than device, with a single server capable of managing up to 1000 mobile devices.

› Multiple deployments

The awi^{MX} workbench enables you to build or customise new mobile applications with ease, incorporating back-office applications where applicable, and to deploy them in a controlled and managed way.

› Fast ROI

Measured in weeks rather than years.



"The adoption of mobile working continues to go from strength to strength within the public sector and is without doubt supporting the service transformation agenda by driving efficiencies and improving service delivery. Indeed for this reason the current economic climate is encouraging rather than reducing the number of mobile working projects being implemented. Microsoft offer a wide range of device types including SmartPhones, PDAs and Tablet PCs, working with their Gold Partners NDL, they are delighted to be able to support any organisation wishing to embrace the benefits that can be achieved from mobile working."

Elin Allison

Enterprise Mobility Business Manager
Microsoft

"Lagan's strong partnership with NDL continues to grow. Their powerful integration capabilities have helped many of our customers maximise the value of Lagan's fixed and mobile Enterprise Case Management (ECM) solutions.

We look forward to continued collaboration with NDL to deliver further innovative and high value solutions for our customers."

Philip Murray

Executive Vice President
Lagan

"The Mobile Working Report 2010, produced by NDL, highlights that cultural change is often cited as a barrier to the adoption of mobile working, however, there is no doubt that choosing a device type that is most suitable to the end user helps to facilitate the process of introducing a new way of working. Spirit Data Capture and NDL have teamed up to offer a variety of device types supporting **awi^{MX}** mobile integration software, which means an organisation can choose the device that is most appropriate to the end user."

Ebbie Khadem **Managing Director**
Spirit Data Capture Ltd

"Enterprising organisations are discovering that mobile technology can unlock the goal of service transformation, bringing public service out into the community, raising the visibility and effectiveness of service provision, and leveraging existing systems to provide more value from them"

Daniel Morrison-Gardiner

Senior Government Account Manager
Research In Motion UK Limited



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