

Making a Move

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Developing your mobile strategy: options issues and benefits



EXECUTIVE SUMMARY

Companies that wish to evaluate the benefits of a mobile application are faced with a bewildering array of industry information. Arriving at a satisfactory cost benefit analysis of mobile technology, based on standard ROI alone, is difficult to achieve.

The new mobile paradigm requires a much broader perspective and any assessment should incorporate a forecast of the important intangible business benefits that can be achieved. Assessing how a mobile solution can add value to company performance, in terms of enhanced communication and interaction with enterprise data, is a more useful starting point than attempting to quantify the financial rewards of using specific wireless hardware or software.

This paper offers a pragmatic approach to developing a mobile strategy which focuses on the needs of the enterprise. It considers the benefits of mobile applications and provides guidance on how to evaluate your company's specific mobile needs. The paper provides an outline of the key issues to consider in developing a mobile strategy including security, usability, data types, synchronization/access and total cost of ownership.

ABOUT THE AUTHOR

A Co-Founder of Equisys, Gareth Williams oversees the company's wireless products business and technical strategy. Educated in Engineering at Cambridge University, and with 20 years in software development, Gareth developed his skills at IT consultancy Logica, where as Technical Manager he specialized in the development and implementation of large scale public sector projects.

INTRODUCTION

In the frenzied search for the Philosopher's Stone that will enable wireless working and bring about some major business benefits, are we really sure that we are looking in the right place? The plethora of advice, hype and information is at best confusing, and at worst, seriously inaccurate.

Media attention has recently focused on some early mobile technology adopters who have yet to see a tangible return on their investment. Is it that the ROI on high spec hardware will take longer to seep through than anticipated or simply that some organizations have over-spent on expensive handheld devices, without a proper assessment of how they can deliver value? Even organizations that have minimized their investments in mobile hardware may find that the total cost of ownership is an unacceptable burden and may be looking for less complex solutions. Other organizations have held back from implementing mobile solutions and are waiting for the fast pace of innovation to settle down, uncertain if a mobile strategy will ever pay off.

Businesses need to use ROI to justify the investment in mobile applications but are unable to find the appropriate metrics on which to perform a convincing cost benefit analysis. How do you assess the tangible benefits that will impact on the bottom line? At least two leading analysts are now saying that basing a business case for mobile technology strictly on an estimate of the tangible benefits is completely misleading. In recent reports both Datamonitor and Gartner have emphasized the importance of considering the intangible benefits of mobile technology. They argue that as the technology is still evolving it is just as important to evaluate the soft benefits of implementing a solution rather than simply attempting to forecast ROI.

So how can companies evaluate the mobile options and arrive at an informed decision?

This paper offers guidance to organizations wishing to enable staff to work in a more mobile environment. It is primarily aimed at companies who have already assessed the benefits of mobile technology and now need some practical guidance on how to proceed. It stresses the need for a strategic approach to implementing a mobile solution and outlines the important issues that need to be considered in developing that strategy.

NOTE ON TERMINOLOGY

'Wireless' and 'mobile' are not synonymous terms but are frequently used interchangeably in the industry literature. In this paper 'wireless' refers to specific technologies that enable mobile working.

THE DYNAMICS OF THE ORGANIZATION

There has been very little coverage in the literature of how companies can fully assess the benefits of mobile technology beyond the standard ROI metrics on which a cost benefit analysis for technology implementation is conventionally made.

Much analysis has concentrated on enterprises with extensive sales forces, massive logistical operations or burgeoning supply chains who have invested in mobile technology out of operational necessity. But not all organizations are driven by the same motivations and many may have very different business models which are often knowledge based. Well documented benefits of mobile technology and ROI therefore cannot necessarily be applied to the characteristics of all organizations.

These models may not apply to enterprises that place a far greater premium on employee value, personal empowerment and the need for access to information on the move by staff at all levels and outside specific disciplines and specialisms. A number of key dynamics are typically ignored or brushed over in considering the cost justification and ROI analysis and hence a number of vital questions are frequently overlooked. The following questions give an indication of the different organizational characteristics that can determine the choice of a successful mobile solution.

- *Is the organization necessarily suited to the kind of wholesale ‘migration’ of working methods and uptake of mobile technology tools (such as utilities field staff switching from clipboards to PDAs)?*
- *Is it more concentrated within a value chain, rather than a supply chain?*
- *Is the business based on or highly dependent on the potential of intellectual and human capital and does it regard personnel as the key asset of the enterprise?*
- *How committed is the organization to enabling full access to corporate data and interaction between all staff, not just by staff in certain ‘qualified’ departments or disciplines?*
- *Is the organization looking for simple strategies to enhance the performance of their staff by empowering their management of personal information?*

DON'T DO THE MATHS?

Although there is a plentiful supply of data on ROI in the industry literature, there may be little in the way of comparative data for organizations wishing to draw some useful conclusions for their own assessments. A quote from Forrester analyst Caroline Sceats gives an indication of the problems inherent in assessing ROI on mobile solutions:

“It is perfectly possible to achieve 269% ROI over five years, but only if you have that understanding of how mobile applications deliver value.”¹

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Assessing how a mobile strategy can add value to company performance is a more useful starting point than attempting to quantify the financial benefits of a specific wireless device. Some hard data can certainly be enumerated; for example it is possible to calculate efficiency gains in the reclamation of travel time. Companies with CRM systems and established customer service benchmarking can also more easily quantify the benefits of improved customer service quality and resulting customer loyalty as a result of mobile technology implementation. A cost benefit analysis can also provide reliable ROI data on areas that either increase revenue or reduce costs, such as:

- *Increased sales: more sales/service calls per day, faster sales cycle.*
- *Reduced administrative costs: more accurate information processing, faster payment cycle.*

However it is less easy to predict the precise financial gains that will accrue from enhanced communication and more effective information flows throughout the enterprise and with customers, partners and suppliers. As a Gartner report points out: “Attempting to quantify the value of better communication is reminiscent of the arguments about cost justifying email that took place ten years ago; these seldom reached clear conclusions, but this did not prevent email becoming ubiquitous.”²

INTANGIBLE BENEFITS

Identifying how a mobile solution can add value means assessing the intangible benefits that are likely to result. A synthesis of some of the 'soft' benefits of wireless technology identified by Gartner, together with conclusion from our own analysis, is listed here:

- *Faster and more reliable decision making: as a result of more effective communication and improved information flow.*
- *Process improvements: the generation of valuable new information, such as on customer behavior data. Data can be immediately captured and mined to provide an insight into potential business process improvements.*
- *Increased customer retention: being more responsive to customers results in improved customer satisfaction.*
- *Broader learning: using mobile devices and applications will spread knowledge through the organization.*
- *Reduced employee stress levels as a result of easy and immediate access to critical information (reducing company sickness and absenteeism rates).*
- *Improved quality of employee life: enabling them to keep in touch with family via email or instant messaging while traveling.*
- *Enhanced brand value: the company presents a more professional and efficient image to customers.*

Gartner states that a management perspective based on value of investment (VOI) rather than ROI is a more appropriate methodology for assessing the full impact of mobile applications. We would agree that the traditional approach to identifying the benefits of information technology (based primarily on tangible ROI) represents an outdated methodology that does not sit comfortably with the new mobile model. The following guidance provides a more pragmatic approach to formulating a mobile strategy.

THE NEEDS OF THE ENTERPRISE

A mobile strategy should emphasize the needs of the enterprise, not focus on a specific technology or product. Rather than investigating how a specific device or technology can be used, identify how the performance of mobile staff can be enhanced through better access to critical information. Keep an open mind: it is important not to start out with too many pre-conceived ideas. Don't confine your planning to staff who are currently mobile but also consider how more mobile work styles can be of benefit throughout the enterprise. Assess how easy it would be to migrate existing business routines to a wireless solution; you may not need to go for a wholesale change to your business processes.

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Recognize that it is not the technology itself that will make a difference, but how it will be used. You will gain competitive advantage and see ROI only as a result of your own company's creative and innovative approach to mobile applications. Examples include the degree to which it will help you to make improvements to your business transactions, speed up customer response times, or increase time spent on client development.

The emphasis needs to be on the people in the company and how they work. This needs to be closely tied with the overall aims of the organization and what you want to achieve as part of your general business planning.

PERSONAL INFORMATION MANAGEMENT

For many organizations the starting point in developing a mobile strategy will be how to enable access to personal information systems. We define personal information as the data that is absolutely critical for people to perform their work. It is information that is pertinent to their daily routines and includes data that can be amended, personalized and managed by individuals. PIM includes email, diary and task scheduler but can also include customer and contact information. There is a growing consensus that personal information management (PIM) is the lynchpin to developing a profitable mobile strategy.

Email deserves special attention as it is no longer just a means of communication; it is a critical business tool. Although it has revolutionized the work place it has also created problems in terms of information overload. According to one survey, the need to keep up with emails was ranked as a greater cause of stress than having a bad relationship, a poor working environment or a customer complaint.³

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Corporate solutions to the problem of email overload have tended to be systems-based rather than user-focused and rarely address a key cause of email stress: the anxiety of missing out on crucial business information. A recent Equisys survey found that ‘email anxiety’ extended to holidays breaks, with more than a third of respondents reading all of their emails while they were away. Enabling mobile access to email represents an important leap forward for staff, providing them with a critical time management tool and an immediacy which can bring a new dimension to their work.

ACCESS A RANGE OF APPLICATIONS

Email is important but there is growing evidence that mobile access to a wider mix of corporate data is more critical. A recent survey found that the most desired function for mobile phone users is access to contact information.⁴ Mobile staff require contact details when they are away from their office, at their clients’ sites or while traveling. They need access to updated customer contact details, a customer relationship history and the ability to amend and manage that data. Access to other data sources, such as financial information is also crucial and indeed it is the combination of data sources that is critical.

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ASSESSING YOUR NEEDS

The key to effective mobile working is empowering employees to be fully in control of their routines. Technology tools are required which provide staff with the means to manage their critical information while on the move, not merely to access it.

Evaluate the way your staff currently make use of their personal information. This will enable you to build up a holistic picture of the intangible benefits of mobile working. An evaluation should make use of a mix of both quantitative (questionnaires) and qualitative (interviews, discussions, focus groups, brainstorming) methods. Make use of existing communication channels to encourage a response, such as bulletin boards and discussion lists. A reliance on quantitative methods will not elicit those important ‘intangible’ reasons why people may not be working in the most productive way.

Don't concentrate exclusively on 'time and motion' but rather build a holistic picture of how your business works, and how it can work better. It is important to understand the crucial interplay between the needs of the enterprise as a whole and the specific needs of individual employees in enabling mobile access to information. A successful mobile strategy will harmonise both sets of needs.

YOU NEED TO DISCOVER:

- *The information accessing behavior and communication needs of staff.*
- *The type of information that is most critical to most employees.*
- *The tools employees need to enhance their performance.*
- *How employees themselves think they can be more effective in their work.*
- *How employees can manage their time more effectively.*
- *How employees can manage their information more effectively.*
- *The degree to which employees need to access data, rather than being accessible themselves.*

WHERE ARE THE SWEET SPOTS?

Organizations that are more hospitable to change will be more successful in adapting to mobile applications and the financial gains will be greater. Identify those aspects of your business that can very easily be adapted to mobile applications and where you can forecast some quick wins in terms of productivity, improved staff performance and better customer service.

Forrester has identified a number of 'wireless sweet spots' which can deliver value (such as greater interactivity between staff, process tasks and knowledge applications) even though they may be hard to quantify in financial terms. Your company is unique, so by identifying your own mobile strategy sweet spots, you can focus more clearly on where you can gain competitive advantage by deploying a mobile solution.

Separate out other functions that are less urgent for mobile solutions. By developing a picture of where your organization appears on the mobile 'continuum' you will be able to proceed at a manageable, measured pace.

Once you have developed an accurate picture of your organizational needs you need to consider the following issues, before drawing up a specification.

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SECURITY

It is critical that all solutions are evaluated in the light of industry proven security techniques in order to ensure the full protection of corporate information and systems. A solution must demonstrate its ability to work in conjunction with firewalls, to protect against malicious attack via the Internet. Protecting the integrity of corporate data as a result of the loss of a handheld device is also important. Devices that store critical enterprise data (as part of a synchronization facility) may present a greater risk than a mobile solution based on an 'access' model. An end to end evaluation of the security configuration is absolutely essential. Look for solutions that enable:

- *Secure user login using encryption: authentication for users from the handheld device prior to gaining access to the enterprise environment.*
- *Secure browsing: can the solution be configured to optimize security for applications involving browsing and interacting with a corporate network?*
- *Use of a demilitarized zone (DMZ): increased security for enterprise data can be achieved using a separate, protected area of your corporate network, (a 'subnet'), bounded by firewalls.*

USABILITY

With the smaller screens offered by mobile phones and PDAs compared to PCs, facilities to manage messaging while on the move need to be quick and easy to use. Evaluate how easy it is to access, amend and delete data. How easy is it to compose emails or access the web? Does the solution offer single button services, for example to reply by phone to an email simply by pressing a single key? Assess what facilities are available to enable staff to manage their data, using personal alerts and filters. Is remote printing possible?

DATA TYPES

Email access is no longer the mobile 'killer app.' Delivering business value from a mobile solution requires a greater mix of data sources. List the enterprise applications that are critical to your mobile staff. In addition to email access these might include data stored in database systems and on file servers. Demand for mobile access to certain types of data types and applications is likely to grow rapidly. Examples include:

- *Accounting and financial data (sales and purchase orders, stock control).*
- *Contact management applications.*
- *CRM applications.*
- *File attachments (Word, Excel etc).*
- *Calendar, task scheduler.*

'SYNCHRONIZATION'/'ACCESS'

Hand held devices can either synchronize with enterprise network systems and download information to be stored in the device, or can be used simply to access data in real time as and when required. Synchronization allows for mobile users to store fairly current information while only updating periodically, while real time access allows retrieval of up to date information only when it is required.

Consider how frequently mobile users will be able (or need) to synchronize their data. How does the handheld device perform the synchronization (whether via a cradle connected to a PC or via a dial-up or other connection while mobile)? When thinking about the cost of these options, consider how frequently staff will need to synchronize, in order to access time critical data, and how long the synchronization process will take. 'Always on' over-the-air synchronization is likely to be paid for according to the amount of data transferred, and handheld devices requiring more memory and functionality can push up the budget.

More frequent real time access will typically be paid for in data charges. Using mobile phones for access rather than higher specification handheld devices will require less support. This latter option may be a good place to start for organizations looking for a lower cost entry point to a mobile strategy.

The decision on which route will deliver the greater business value for your organization largely depends on the complexity of needs of mobile employees, the type and currency of data that needs to be accessed and the type and cost of services offered by your mobile operator.

TOTAL COST OF OWNERSHIP

This is an important issue in developing a mobile strategy so consider the cost of supporting the handheld devices you deploy in relation to the original investment. Keeping costs low by encouraging the 'back door' introduction of handhelds (with different staff using different devices with a varied mix of operating systems) also has implications for support. The use of ubiquitous hardware may provide an ideal and cost effective platform on which to reach the first rung of the mobile ladder.

Staff training is a cost that is often overlooked. If you able to harness the power of in situ mainstream software (such as Microsoft Exchange and other familiar customer contact software, financial or accounting systems) then you will avoid an expensive learning curve. Early gains from mobile solutions will depend on rapid take up from employees. In assessing TCO you need to evaluate:

- *Scalability: the degree to which a mobile solution can increase in performance and capacity over time. A migration path for continuous growth and progress must take into account the ease with which upgrades can be implemented, as well as the hardware, software and connection costs.*
- *Standardization: the degree to which standardization is achieved for vendors, platforms and applications impacts on both support and procurement costs. Assess the compatibility of a mobile solution with existing enterprise applications.*
- *Security: mobile solutions require enhanced security. Is security an integral part of the configuration of a particular solution, or will additional investment be required?*
- *User training: easy to use solutions can minimize training requirements and reduce support costs.*

EVALUATE THE SOLUTION

Finally, when you have conducted a needs assessment, and drawn up a specification, you are ready to select a solution. Go for solutions that can be tried out with minimal investment. Suggest that your technology vendor offers a free demonstration so that you can fully evaluate the solution. A pilot study should involve a good cross section of users, not just technologically savvy staff. Use qualitative methods to elicit feedback from users. As part of the pilot study you should:

- *Evaluate how easy the application is to install.*
- *Evaluate possible support issues.*
- *Evaluate the security configuration.*
- *Evaluate functionality.*
- *Evaluate ease of use.*
- *Evaluate user training requirements.*

CONCLUSION

There can be no doubt that a mobile paradigm is emerging. Datamonitor predicts that global corporate investment in mobile enterprise infrastructure will grow from \$300 million in 2002 to \$2.3 billion in 2005. A study by Access Markets International (AMI) Partners Inc has forecast that more than half of the domestic workforce in the US (67 million people) will be mobile by 2006. IDC predict the number of telecommuters and mobile workers in Western Europe is set to rise from 9.9 million in 2000 to 28.8 million by 2005.

For many organizations, the question is not if or when to adopt a mobile solution, but how to go about it. Jumping on the mobile bandwagon without a careful assessment of how the technology can be used, to meet your specific needs, is a recipe for failure. The emphasis should be less on specific hardware, such as handheld devices, than on the applications and how they can deliver productivity gains. The focus should be on where your company can derive value and must take into account an assessment of the important intangible benefits as well as a calculation of ROI. Developing a business case for investment in mobile technology must therefore be closely geared to the specific needs of your enterprise and should form part of an overall strategy.

An evaluation of your organization's mobile needs, and the potential for productive mobile working, will uncover the wireless 'sweet spots' that will bring the best rewards.

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EQUISYS COMPANY PROFILE

Equisys provides communications solutions to business and government organizations, and has customers in over a 100 countries around the world.

Our products enable customers to increase efficiencies through easy, instant and cost-effective office and mobile communications, providing employees with vital access to communications and critical information at the desktop or on the road.

Zetalink is a business communication software product that provides mobile access to corporate information including Microsoft Outlook email, address books and calendar, and to company CRM and finance systems.

Using Zetalink on their Internet-enabled PDAs and mobile phones, employees on the move who require immediate access to their critical business information can keep in touch and up to date – anytime, anyplace.

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