Nokia for Business

A Holistic Approach to Business Mobility

White Paper

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What is business mobility? If you ask a CEO, it's the ability to respond to pending emails while on the way to the airport. If you ask a sales representative, it's the ability to access important information during a customer visit. For a knowledge worker on a virtual team, it's the ability to be in a seminar but still receive and respond to an urgent request to review a document by the end of the day.

Mobility makes business better. It gives us the freedom to collaborate and transact business outside traditional workplaces and times. It is communication on the go, with access to the right information at the right time. Mobility makes us more productive, but it also gives us the flexibility to manage the complicated and ever-increasing demands of our work and personal lives.

Over five years ago, people at Nokia began asking the question, "Can mobility produce tangible, bottom-line benefits for our business?" Since then, we've been actively working on answering that question. As we've begun to integrate mobile capabilities into Nokia's daily business activities, the results have been very positive. Ask us now if mobility produces business benefits, and we'll answer with a resounding yes.

This white paper presents a holistic approach to weaving mobility into the fabric of a business. The approach is based on Nokia's own practical experience developing and implementing internal solutions that leverage mobile capabilities. The most important thing that we have learned, and what we hope to communicate in this white paper, is that mobility is a powerful business solution—but only by addressing people, processes, and technology in a balanced way can you realize significant business benefits.

Balancing People, Processes, and Technology

Nokia believes that mobility is much more than technology. To successfully embed mobility in the fabric of a business involves understanding how people, processes, and technology interact to get work done. Consider, for example, each area's perspective on what a mobility solution should provide:

People: Appropriate and easy access to information and applications regardless of location, time of day or device

Processes: Cost-effective solutions that improve process efficiency and meet business objectives like improved customer satisfaction or reduced operational costs

Technology: A scalable, secure, and interoperable infrastructure that meets business and worker needs

All of these perspectives are appropriate and must be accounted for in a successful mobility initiative. However, it is often too easy to let one of the three areas slip out of focus. For example, when we introduced the new Nokia 9500 Communicator to internal workers, the adoption rate for the built-in secure mobile email client was low. People seemed to prefer an older text message-based email service—even though its capabilities were very limited.

When users were asked why they didn't switch to an application with better functionality, they pointed to the security policy. It required strong authentication and was perceived as:

1) cumbersome, because it required separate authentication using a SecureID card

2) time consuming, because users had to re-authenticate each time the data connection went down.

Why didn't this mobile solution produce anticipated benefits? Because the focus had slipped away from the people perspective (ease of use) to the technology and business perspectives of mobility (security).

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In contrast, when we piloted our push email and collaboration technology, Nokia Business Center, with internal groups using the same Nokia 9500 Communicator, use of all other mobile email options dropped to almost zero. According to workers, the secure authentication method was much easier to use. Why the dramatic change? The improved solution had adequately accounted for all three aspects.

From a broader perspective, not accounting for each area's perspective in a mobility solution can produce the following serious consequences:

People: Lack of adoption, resistance to solution, low usage levels
- Anticipated benefits not realized

Processes: Lost opportunities to reduce costs, increase worker productivity, and establish competitive advantage through more responsive systems
- Business case often not achieved

Technology: High implementation, integration, and operational costs
- Information security risks

Understanding and planning for the effect of mobility on each of these areas is the only way to form the core of a sustainable mobile business. As Nokia has evolved toward more mobile ways of working, focusing on each of these areas has helped us maintain a balanced approach between the people involved in our business, the processes that enable that business, and the technology that facilitates communication on the go. We have learned that focusing too much on any one area minimizes the benefits derived from the other areas. Keeping this holistic approach in mind has kept us from making a number of unfortunate errors that could have hindered our efforts to mobilize Nokia's business.

The Effect of Mobility on People

What are the top people considerations with regard to mobility? We have found that the following factors are critical for any mobility initiative:

- Understanding the workforce and how they really work
- Understanding how mobility affects the workplace
- Understanding how to manage a mobile workforce
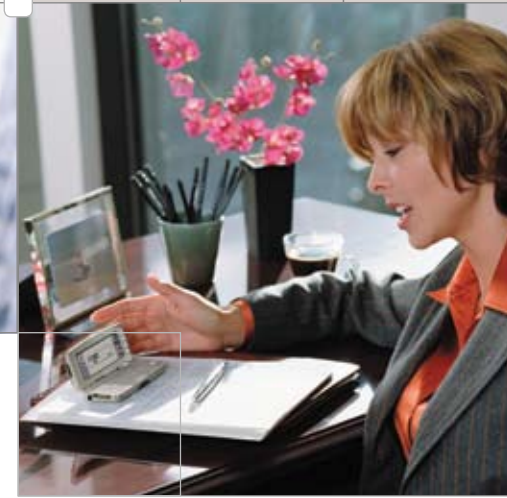
Understanding the Workforce

Mobility affects many areas in an organization, but the greatest changes happen in your workforce. While you can develop a mobility solution without taking the workforce into consideration, the results are unlikely to be positive. In most cases, the workforce makes or breaks a mobility solution. At Nokia, we've discovered that accounting for user perspectives in early planning stages is an excellent way to garner support, ensure better adoption, and increase overall success for any mobility initiative.

So, how do you go about understanding your workforce and the effects of mobility on it? One of the best methods we've found is to initiate activities that investigate and document workers' daily routines, work styles, typical work environments, information access needs, productivity barriers, and device constraints. By interviewing typical workers—asking questions and listening carefully to the answers—you can expose many potential effects that mobility might have on your business. In fact, much of the basic information used in developing Nokia's mobility initiatives came directly from our workforce.

Understanding the Mobile Workplace

Mobility expands what has traditionally been referred to as the workplace because it divorces location from information access. You no longer have to be in a specific place or be available at a certain time to obtain critical, relevant information that lets you get your job done. This change is creating a new paradigm where people can work practically anywhere—at home, in cafes and airports, in taxis, and even at the park. At Nokia, we've found that our employees tend to spend less than half of their working time sitting at a desk—and the same tendency is emerging in many other organizations, large and small.
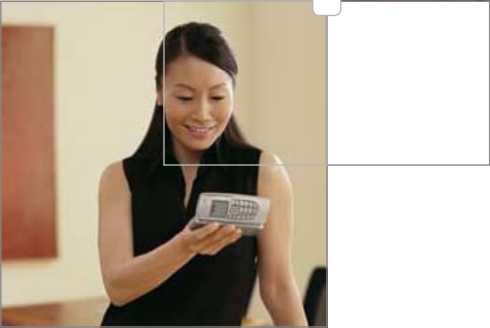
> **On business mobility...**
>
> The time for business mobility has come. The technology is maturing for large-scale use, business models and value offerings are evolving to take advantage of the technology, and organizations are beginning to see the potential benefits of true business mobility.
>
> —Mikko Kosonen, CIO and Senior VP of Business Infrastructure

As mobile ways of working become more common, you will need to rethink how to make place really perform for your workers—regardless of where they are. We believe that the secret lies in recognizing and supporting emerging work practices. This means providing a variety of places for collaborative and individual work, both in the office and beyond. Combining the choice of place with available technology, mobile work policies, and team dynamics that embrace a "work anywhere" culture will let you begin to truly support the new mobile work paradigm.

Managing a Mobile Workforce

A key aspect of going mobile involves managing a dynamic, on-the-go, and out-of-sight workforce spread across multiple time zones. In fact, before you can really benefit from mobility solutions, you have to prepare your workforce and overall corporate culture for mobility. Your workers will find ways to use the tools and technologies for their personal benefit; however, you can help

clarify how these new work practices will benefit the overall organization by asking and answering the following questions:

- Management style: How do your management practices need to change to achieve the best results from your mobile workers?
- Trust: How do you develop a sense of trust in a virtual situation? How can managers ensure that employees are really working?
- Performance measurement: How do you measure performance in a mobile work environment? What systems and policies will support and encourage high performance in mobile workers?
- Identifying mobile workers: Who can and cannot work in a mobile way? How do you identify the best candidates for mobile positions? How do you avoid de-motivating people who feel that they could work in a mobile way but do not have that option? How do you motivate people who do not want to work in a mobile way?
- Expectation management: How do you define an acceptable response time in a mobile work environment? As mobile workers begin to work where and when it is convenient, how do you set expectations for an acceptable work day? How do you avoid intruding on your workers' personal lives?

- Communication: As teams convert to mobile work modes, what options do you have for maintaining the informal communication that typically happens in hallways and around the coffee machine and water cooler?
- Team dynamics: How will team dynamics change as traditional teams move to mobile work patterns? What can your managers do to maintain team spirit and social connectedness?

The Benefits of Mobility on People

The benefits of mobility on the people aspect of an organization are numerous and far-reaching. While most of these benefits tend to be non-financial and qualitative, investments in human capital are often the difference between success and failure. As you work to account for workforce, workplace, and management issues in your mobility solutions, you will begin to see benefits like the following:

- Increased employee satisfaction
- Increased employee motivation
- A healthier balance between work and personal life
- Better use of corporate facilities
- Increased individual efficiency and higher team performance

The Effect of Mobility on Processes

Mobilizing business processes is one of the most compelling arguments in favor of mobility. Why? Because mobility enables real-time information flow—the very core of an efficient business process—by reducing slack, or non-productive time, in the process. Consider how mobility can reduce slack in a service organization's billable time approval process. Employees submit their time in an online system, which sends a task to their manager to review and approve or reject the submission. If their manager is frequently away from the location where she has to do the approvals, the process can stay in limbo for days. The ability to access the online time system from a mobile device allows the manager to respond more quickly, potentially cutting days from the overall process. In addition to reducing the slack inherent in this process, mobilizing it provides an additional benefit: the organization receives information about billable hours faster, allowing it to invoice its clients more quickly.

Mobilizing business processes can result in benefits such as the following:

- Improved productivity (e.g., reduction in costs and tied assets)
- Improved agility and responsiveness
- Improved customer service and new service opportunities

As you begin to consider mobilizing business processes, the challenge will lie in deciding which processes 1) are the best candidates for mobilization and 2) have the greatest likelihood of being adopted by the affected workers. Some questions to ask in your organization include the following:

- How do we identify processes where mobility can make a significant, positive difference?
- How can we translate this difference into easily understood business imperatives and thereby set the basis for robust business cases?
- Once we have identified a list of potential opportunities, how do we prioritize the target areas?
- How do we get started in a low-risk manner?

Even though a process may appear to be an excellent candidate for mobility, it will probably not be successful if workers do not follow the process. One way to overcome this challenge is to frame your discussion

of mobility solutions within the context of the business process activities that the workers perform every day. As always, balancing the people perspective with the process perspective will go far toward creating a winning mobility solution that satisfies both perspectives.

The Effect of Mobility on Technology

In spite of what you may have heard, mobility is not technology—technology enables mobility. Technology underpins the benefits that come from mobilizing people and processes. As you consider the part that technology will play in your organization's mobility strategy, we offer two guiding principles that we have tried to follow in our mobilization efforts at Nokia:

• Leverage existing network infrastructure, hardware, and applications whenever possible (e.g., voice, email, databases, and authentication)
• Create an open and flexible environment that can adapt and grow with your business and mobile workforce

Obviously, ripping and replacing technology is not only an ineffective way to incorporate mobile capabilities, but it also makes selling mobility business cases much harder. Fortunately, many mobile technologies can be built on top of your organization's existing wired network and security infrastructure. For example, providing workers with laptops and giving them access to a secure wireless LAN is a relatively simple first step toward integrating mobile technologies.

As you begin to assess your existing infrastructure, ask questions such as the following:

• How do we shape our business to take optimal advantage of innovative mobile technology—and what are the risks?
• How do we standardize, support, and synchronize innovative mobile tools?
• Does our existing email system meet our workers' needs? Can it be mobilized? What is needed to mobilize it?
• How important is remote access to internal databases and data?
• Can workers access internal applications, including custom-built applications and packages like SAP? How well do these internal systems integrate?
• What types of authentication processes

need to be followed? Can existing directory and authentication systems like Active Directory and Radius work in mobile scenarios?
• What are the best methods of ensuring the security of company confidential information such as corporate contacts, email, business strategies, and sales forecast numbers?

To keep your IT environment flexible, try whenever possible to base your mobility infrastructure on open standards. This approach will help you choose from a variety of technologies and devices that provide the functionality and connection methods best suited to your business activities.

A Holistic Approach—Redux

Mobility is about creating new ways of working that are free from traditional constraints of location and time. To do this successfully, you must carefully consider the effects that mobility will have on your workers, business processes, and IT infrastructure. Like a stone dropped in a pool of water, a mobility project can cause far-reaching ripples (Figure 1).

Our experience has shown that taking the following steps will help you identify mobility's ripple effect in your organization, plan for it, and improve the chances of success.

Decide where mobility makes the most sense in your business. This step is critical to future success. Analyze the potential benefits and challenges of mobility in your situation by looking at the workforce, business processes,
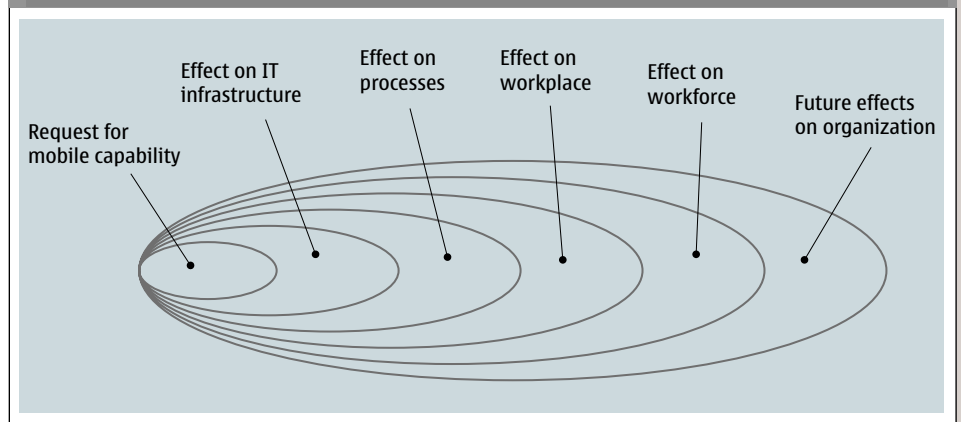
On meeting deadlines...

A few months ago, I was in an off-site seminar in Rome on a day when I needed to receive and respond to an article that was going to be published in a metropolitan newspaper. In the old days, I could not have been online with my laptop waiting for the article to arrive. I would probably have missed the opportunity to comment, given that the paper had to receive my comments that day. But, because I had access to email and standard office applications with my mobile device, I was able to receive the article, insert comments directly into the document, and send it back to the journalist—without leaving the seminar!

—Outi Vuorio, Mobility Research, Espoo, Finland

Figure 1. The Mobility Ripple Effect

Request for mobile capability

Effect on IT infrastructure

Effect on processes

Effect on workplace

Effect on workforce

Future effects on organization

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and technology infrastructure. Identify at a high level where mobility will give your business the edge you want.

Get to know your workforce. Take the time to learn about and really understand the people that will be affected the most by mobility—your workforce. Interviews and observation are two key techniques to gaining this understanding.

Understand mobile workplaces. Identify your employees' work types and work styles. Learn about the user communities that exist in your organization. Based on that information, design and implement strategies for making place perform wherever your employees are.

Identify and assess your business's mobility opportunities. Identify and qualify business processes for mobilization. Conduct day-in-the-life-of (DILO) studies of workers as they carry out a business process in order to find mobility opportunities in your organization.

Conduct a functional assessment of mobility opportunities. Gather the mobilization requirements for each mobility opportunity. Building on process and DILO models, identify the necessary mobility process changes. Define the user groups affected by each business process and determine how the proposed solution will affect them.

Quantify the business potential. Does this solution create value? To get funding, the project should show quantitative and qualitative benefits, and should have mechanisms to measure them.

Define the solution design. What are the building blocks of the mobility solution? With an understanding of the requirements, you can build the solution architecture, including technology, organization, and process

components. Based on operational design, you can also assess the gaps in the current environment and the amount of effort required to fill them.

Review technology options. This includes analyzing your current infrastructure to determine how to create a foundation for mobility. It also includes choosing the types of mobile devices that will be made available to the workforce.

Examine current workforce management policies and practices. Decide how policies and practices will need to change to support more mobile modes of working. Look for ways to maintain the social aspect of work as employees move toward more virtual interaction.

Develop a business case. Create a business case using final cost figures from the solution design and technology review.

Develop and execute an implementation plan. After funding approval, create an implementation plan with key phases, milestones, resources, and deliverables. Activities to facilitate the change process should be included throughout each phase. Finally, execute the plan.

The Result: A Mobilized Business

The changes brought on by holistically incorporating mobile capabilities into your organization will play an important role in enhancing productivity and competitiveness by creating a mobilized business with the following characteristics:

- Mobile technologies are an integral part of the corporate IT infrastructure.
- Corporate information is appropriately secured across locations, systems, and work practices.
- New capabilities are achieved by adding mobile elements to business processes.
- Global and intercompany task forces can form quickly and work efficiently.
- The role of the corporate office and dependence on a nine to five time window diminish, providing the freedom to work where and when it is most convenient.
- Physical space is used for productive face-to-face work.
- Employees have more balance between work and personal life.

The Erosion of Traditional Work

Changing perspectives on how business is done are rapidly eroding traditional concepts of work:

Concept	Traditional view	Emerging view
Where work takes place	The office	Where it makes most sense
How information is accessed	Inside the corporate firewall Face-to-face interaction	From practically anywhere using a mobile device
How performance is measured	Hours logged	Results achieved
How teams collaborate	Permanent physical location Entire team in one location	Virtual spaces Temporary physical locations across geographies
Space and facility requirements	A cube for each worker	Flexible meeting and work spaces
Organizational models	Strict departmental hierarchies	Worldwide virtual teams that form as needed to address specific initiatives
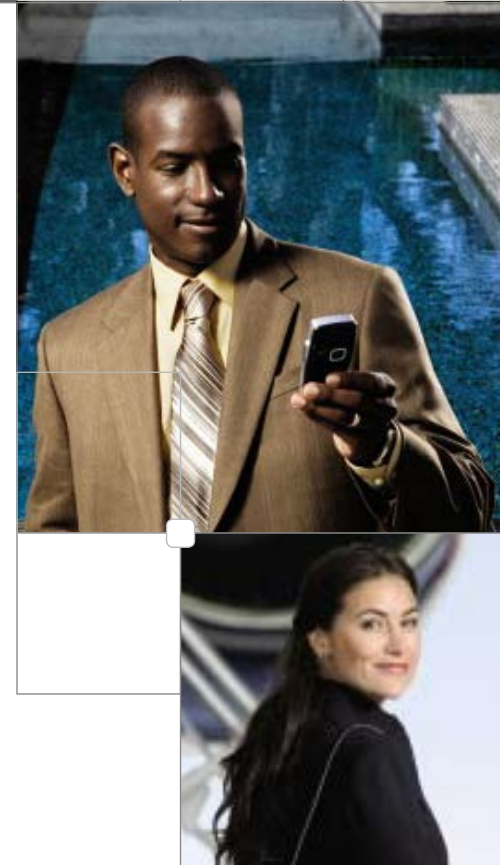
Getting Started

The potential effects of mobility on your business are far-reaching and often not immediately obvious. In many cases, introducing mobile elements into your business will require a fundamental change in the way your organization currently operates. The important thing to remember is that the more you understand mobility, the better you'll be able to anticipate and plan for its effects.

Nokia understands the realities of mobilizing a business. We've been through the long, sometimes painful process of figuring out the best way to go about mobilizing our business. We've done our homework, carried out our due diligence, and are successfully using mobile capabilities to gain significant business advantages. This white paper presents a small overview of what we've learned about mobilizing a business.

If you would like more in-depth information on the considerations of mobilizing a business, check out **Work Goes Mobile: Nokia's Lessons from the Leading Edge***. This book tells the inside story of Nokia's

efforts to weave mobile capabilities into the fabric of our business. It is targeted at business decision makers who need to understand how to successfully integrate mobility into their organizations, and uses Nokia's own practical experience to illustrate the unique aspects of this transition. It goes into detail on the holistic approach to business mobility presented in this paper, and offers many valuable insights into how mobile work can provide a strong source of competitive advantage.

Beyond Work Goes Mobile, Nokia's Mobility Professional Services group is committed to helping organizations successfully move toward mobilized business. Our experts can advise you on the benefits that mobility can provide in your specific situation. They can help you overcome the challenges common to mobility deployments, and guide you in developing a comprehensive mobility strategy for your organization. If you can identify compelling reasons to begin moving your organization toward mobility, consider leveraging Nokia's expertise. If you allow us to, Nokia can help your organization begin enjoying the freedom and benefits of business mobility.

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* Wiley Publishing, January 2006

On improving customer service...

Mobility has done wonders for me— I don't have carry my laptop just so I can respond promptly to queries and urgent requests from our customers. With just a few taps on my Nokia 9500 Communicator, I can work like I would in the office—wherever I am. I know that our customers are happier and more satisfied because I can promptly attend to their needs. From a business standpoint, this means a lot since our customers don't have to wait until the end of the day to get answers to their questions. When you're always reachable, and you always show that you're there to assist, they'll be more than happy to do business with you. What more can I say? Our business solutions are the tools that make a difference.

—Iris Landicho, Sales, the Philippines

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For More Information

If you would like to learn more about how Nokia's Mobility Professional Services group can help your organization prepare for and implement business mobility solutions, please contact the nearest Nokia office listed below:

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About Nokia

Nokia is the world leader in mobile communications, driving the growth and sustainability of the broader mobility industry. Nokia is dedicated to enhancing people's lives and productivity by providing easy-to-use and secure products like mobile phones, and solutions for imaging, games, media, mobile network operators and businesses. Nokia is a broadly held company with listings on five major exchanges.

For more information, please visit **www.nokia.com/business**