

opinion piece

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# The Mobility Matrix

It's a mobile world



# Contents

Introduction	<b>01</b>
It makes commercial sense	<b>01</b>
Where is your business on the Mobility Matrix?	<b>02</b>
Victoria State university education sector: wireless and mobility super-user?	<b>03</b>
Conclusion	<b>04</b>
Wireless network provision	<b>04</b>
Regional Head Office Contact Details	<b>04</b>

The prolific use of mobile phones, paging devices, PDAs - even TV or garage remote controls - are evidence of the overwhelmingly obvious benefits of wireless communication. Well over half the planet's population own a mobile phone; it's the most widespread example of a wireless device, and the flexibility, mobility and convenience it affords us in a daily life is so ingrained that it's almost impossible to imagine conducting our lives efficiently without it.

It is not a stretch, therefore, to recognise the benefits to business of being mobility conscious - benefits that are well documented and regularly expounded. It appeals to reason that anywhere, anytime access between a business and its resources - be they staff, clients or key business applications - will facilitate productivity, efficiency and service. Furthermore, in an era of macro-social changes including such trends as flexi-time working, and continued urbanisation - and a myriad of other variables - it is not always possible, feasible or optimal to work from the office.

In the current market particularly, every edge and differentiator is essential not just to success, but to survival. To this end, wireless technology is being leveraged by an increasing number of organisations across all verticals. More than 50% of companies today are using mobility-enabling technologies to improve productivity, enhance collaboration and increase the responsiveness and agility of their business. Industry analysis shows that enterprise spending on WLANs is expected to grow, on average, by 20% per year through to 2011.

### It makes commercial sense

Pervasive mobility reflects a shift in consumer and social behaviour. Businesses that ignore the opportunities to leverage mobility are missing an opportunity to come up with creative new ways of doing business that could radically shift their cost and value base. A more permanent set back will occur when they inevitably find themselves outpaced by competitors who are leveraging mobility to the benefit of their business. Not only will they lose the opportunity to attract skilled people and meet the needs of a now mobile customer base, they may even find it impossible to

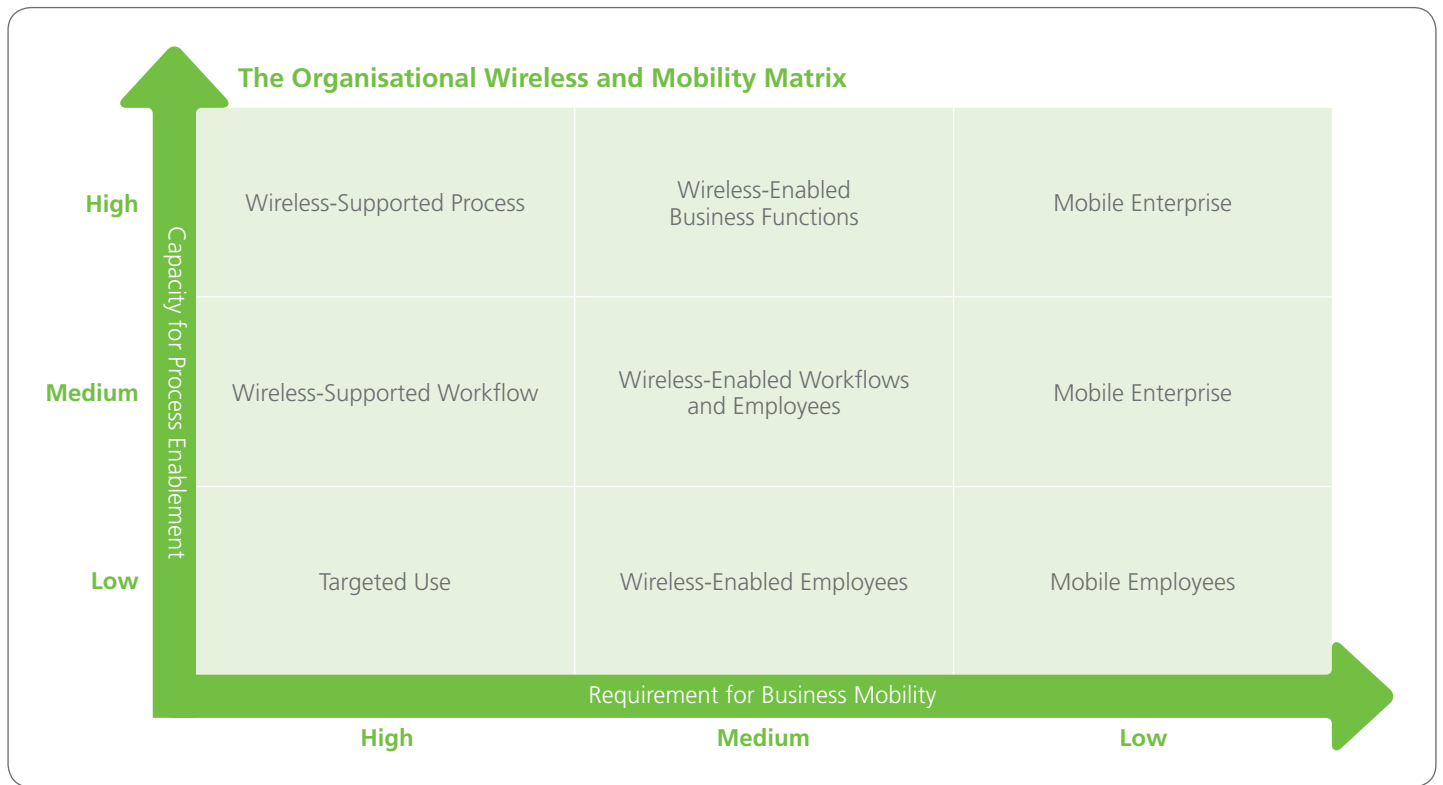
operate productively if their employees are tied to 'fixed' connectivity with data and applications.

The vast majority of organisations are already aware of the business benefits that mobility affords, and have consequently made some investments into it. However, as with all technology investments, it is crucial to have a clear vision of where the technology can take your business. If investments are made in an ad hoc or reactive fashion, the likelihood is that these investments will become redundant further down the line. In the public sector particularly, it's a business imperative and fiduciary responsibility to make the best use of funds and deliver the most return for shareholders and citizens. Thus, if the intention is to embark on mobility initiatives, it makes commercial sense to have a plan and a sense of direction. Furthermore, when viewed in isolation, mobility technologies are very much 'point solutions' and will not realise their full business benefits. Organisations that opt for trying out a number of isolated solutions, with no plan of how or where to integrate them, will find themselves constrained further down the line when they need to roll out something more extensive.

The crux of the matter is that mobility technologies have reached business applicability; organisations can now enjoy real business improvement and process innovation from mobility applications. Businesses must ask themselves whether they want the way their operations change to be purely technically driven and to occur while they're looking the other way, or whether they want to adopt a more directed, controlled approach. If it's the latter, it's essential that they identify where they, and their competitors, are positioned on the Organisational Wireless and Mobility Matrix.

In the current market particularly, **every edge and differentiator is essential** not just to **success** but to **survival**.





To maintain a competitive advantage, organisations need to consider how mobility can add value to their business, both today and in the future. With this in mind, the Organisational Wireless and Mobility Matrix gives organisations a starting point from which to initiate the discussion on where they are now, where they need to be, and where they want to be, on a mobility roadmap. The horizontal axis of the Mobility Matrix illustrates the degree to which an organisation needs to support mobile users, while the vertical axis plots the capacity for process enablement, or process reengineering, that business mobility could enable.

The case has already been made for the productivity and efficacy boons that supporting a mobile workforce can realise, but how can wireless technology enable organisations to improve and reengineer their operational processes?

It provides an opportunity that goes beyond **incremental productivity gains by notably sharpening** a competitive edge.

Business process reengineering (BPR) is about organisations rethinking - from end-to-end - how they could amend or change processes in order to dramatically improve customer service, cut operational costs and accentuate competitive advantage. Fundamental to successful BPR is shifting business from being functionally organised, i.e. looking at individual business silos and their individual functions, to being organised against an end-to-end process. This is where wireless has the ability to make a real difference; by analysing how wireless can automate tasks and take responsibility for various processes

organisations can redistribute skill where it is most needed, improve the machinations of the business and streamline processes. It provides an opportunity that goes beyond incremental productivity gains by notably sharpening a competitive edge.

Where is your business on the Mobility Matrix?

The following questions have been specifically designed to help organisations locate their position on the mobility matrix by determining their requirement to (1) support a mobile workforce and (2) enable business processes with mobility.

How to determine your requirement to support a mobile workforce:	low	high
What proportion of your workforce is mobile: <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	< 10%	> 70%
How quickly should your employees be able respond to customer and business imperatives: <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	Within 48 hours	Within 2 hours
How dependent is employee / user decision-making and task execution on access to central applications and data: <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	For less than 10% of decisions and tasks	For more than 70% of decisions and tasks
How important is it that you are able to communicate with employees immediately? <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	Not a key requirement for running the business	Critical to running the business

How to determine your requirement to enable business processes with mobility:	low	high
To what degree is your means of production (i.e. production lines) fixed: <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	More than 70% of work needs to take place in a fixed location	Less than 10% of work needs to take place in a fixed location
What is your requirement to support dynamic moves, adds and changes in your workforce? <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	Not much, employee base is relatively static	Significant, employee base is dynamic
How dependent is the organisation's fulfilment on mobile access to applications and data (such as product inventory)? <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	< 10% of workflows have this dependency	> 70% of workflows have this requirement
How important is it that you are able to locate movable assets immediately? <ul style="list-style-type: none"> <li>• Now?</li> <li>• In three years?</li> </ul>	Not a key requirement for running the business	Critical to running the business

### Victoria State university education sector: wireless and mobility super-user?

The highly competitive university education sector in Victoria State, Australia, has shown rapid adoption of wireless networking in recent months. Universities are a perfect example of how a capacity for process enablement and the requirement for business mobility are both supported by wireless technology. Universities have a highly mobile user group to support across a wide geographic area. Gone are the days when network access was on a first come, first serve basis and required students to physical entering the university computer labs. Similarly, the forward thinking education sector has identified a number of processes that can be reengineered to the benefit of student and institute alike. For example, a deployed infrastructure across the campus allows for user access to the internet without compromising network security. In this way, students can bring their laptops directly into lecture halls and have immediate access to lecture notes, online library resources and other information forums. From a university perspective, this means that endless paper copies or lectures will not need to be printed, resulting in less paper, less cost and less wasted or misused time. In this scenario, wireless technology is facilitating a more modern, more streamlined, method of educating, and consequently a more accessible, more 'connected' way of learning.

## Conclusion

Mobility is as much a prerequisite for the 21st century business as it is for the 21st century way of life and organisations that fetter their communication capabilities with cable and wire are literally restricting the potential of their business. Pervasive connectivity is no longer the future, it's the present.

Organisations now need to look at how they can harness wireless technology to enhance and improve the processes on which their business relies - or else find themselves trailing their competition.

Plotting where your organisation presently falls in the Organisational Wireless and Mobility Matrix is an essential starting point for a dialogue on the direction that wireless technology will take your business. Without such a dialogue, the danger is that your business will not be going anywhere at all.

## Wireless network provision

Dimension Data was commissioned via open tender to deploy a new wireless network for a leading Victoria State university in July 2007.

The solution, comprising of lightweight access points and centralised wireless controllers, was deployed throughout the university's main campus. Dimension Data carried out extensive physical site surveys covering 200+ floors for required wireless coverage. Special considerations for access point installations were required due to the classification of some of the university buildings being listed as "Heritage and Historical" building structures.

Dimension Data supplied and managed the installation of approx 600+ new access points. The wireless network supports data and internet connectivity for staff and students across required university indoor locations. Coverage for wireless services also included outdoor locations for student and staff access.

Included within this project was the design and delivery of 802.1x authentication services and a wireless LAN management platform.

Dimension Data assigned senior technical and engineering personnel, all who specialise in wireless infrastructure designs and deployments, to design, implement and commission the new wireless network. Dimension Data also supplied expert security engineers to design and implement required backend authentication and firewall services for this solution.

The network went live in May 2008 and is supporting upwards of 600+ active/ concurrent users per day.

The roles performed included:

- Provision of all hardware – controllers and new access points
- Management and installation services (cabling and AP installations)
- Solution Design – Macro and Micro designs
- Wireless site surveys for all required university campus locations, buildings.
- Commissioning and testing of all wireless network components for wireless data connectivity

Dimension Data is providing ongoing support to the university covering all aspects of wireless network technologies and continues to act as subject matter experts for the technologies utilised in this deployment.

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