

# Enterprise Mobility Navigating Mobile Migration



# Contents

Executive Summary	1
Aspects of Mobility	2
Balancing User & Business Needs	5
TCO of Enterprise Mobility	6
Contacts	7

# Executive Summary

Enterprise mobility is becoming more and more of a reality for business leaders today. Employees are increasingly mobile and are placing more demands on the business to empower them to work where and when they want. Smartphones and tablets have been at the forefront of this mobile revolution enabling employees to get more done in less time and to do their jobs better.

Whilst laptops are a mobile technology; and by and large; still the standard in terms of mobile operation there are an increasing number of new mobile devices from tablets through to smartphones that are being used to conduct business on a daily basis.

Employees need rapid and easy access to information just to get their jobs done. As a result of this, more and more people are using their phones and tablets to work outside of the office and office hours in order to be as effective and efficient as possible.

Today, as more and more enterprises embrace mobility, CIOs must find ways to create value while protecting against the potential chaos that can be unleashed from a poorly planned mobile solution. Given the seismic effects IT consumerisation has had on the enterprise, it is understandable why Mobility has been listed as a disruptor in the Deloitte annual Technology Trends Report for the last four years running. From a CIO perspective, the relevance of mobility as a disruptor is demonstrated in the Gartner 2013 CIO survey<sup>1</sup> (answered by over 2000 CIO covering 36 industries and 41 countries) where over 70% of CIO's cited mobile technologies to be most disruptive, followed by big data/analytics (58%), social media (54%) and public cloud (47%).

One aspect of mobility that is of particular interest is its adoption by operational processes within the enterprise, also referred to as Enterprise Mobility. In essence, enterprise mobility is about unlocking potential for organisations to improve productivity and operational efficiency by allowing stakeholders, both internal and external, to interact with the organisation from a mobile device over a secure connection. This trend of enterprise mobility adoption has been growing in importance year-on-year. In a 2013 Gartner survey of CEO and Senior Executives focus on for-profit business leaders (i.e. excl. CIO and CTO) shows 40% of respondents view Enterprise Mobility as an important Five-Year business investment area, this is a 10% increase from 2012.

	2013	2012
<b>Enhanced business reporting</b>	48%	31%
<b>Cloud business</b>	41%	32%
<b>Enterprise Mobility</b>	40%	30%
<b>Business process outsourcing</b>	38%	29%
<b>Location intelligence</b>	23%	12%
<b>Pay as you go</b>	14%	5%
<b>Additive manufacturing</b>	8%	4%

In many organisations, mobile initiatives are popping up in various business units, regions, and departments. Typically, after some experimental applications are launched to both smartphones and tablets and the value of mobility is observed, the floodgates for mobility initiatives are opened. While there are high hopes for value creation, there are also mounting fears that the environment could descend into chaos. Essentially the CIO needs to take control of the mobile migration and lead the organisation safely into the future of enterprise mobility.

This report looks through the various aspects of enterprise mobility that affect the CIO as well as explores some of the aspects of enterprise mobility.

# Aspects of Mobility

## So where do you start?

There are many reasons why organisations should consider laying down a corporate strategy for enterprise mobility before making investments in mobile technologies. It is imperative though that the business calls for enterprise mobility as a way forward. Mobility should not be undertaken lightly as a "me too" strategy. Rather, the decision to go mobile should be underpinned by a concrete underlying business imperative to unlock competitive advantages or efficiencies within the business. Metrics should be established to track the cost and benefits.

Migration to a mobile solution poses significant and new challenges for IT organisations. In the recent past, most companies took a hands-off approach that meant mobile devices were not managed or monitored very closely. But with more employees now demanding access to corporate networks and valuable enterprise data, IT organisations can no longer ignore the mobile revolution of business.

Here are some of the key aspects of mobility<sup>2</sup> that IT Organisations should take note of as they define their mobility strategy.

## 1. Strategy

By and large, most organisations do not have experience with large mobility deployments; and as a result, many are discovering mobility challenges as they implement small projects and attempt to scale to hundreds and even thousands of users. Whilst an ad-hock approach might be suitable for proof of concept (PoC) scenario or perhaps as a means to demonstrate the value of mobility for an executive level conversation, a well thought-out mobility strategy is crucial to the successful group wide deployment of a mobile solution. A common view of mobility will help organisations anticipate and address many of the challenges mobility poses and lead it successfully through the entire mobility lifecycle -- from procurement ultimately through to device disposal.

A company's mobility strategy needs to begin with a clear definition of the business goals and objectives as well as a profile of the mobile users within the organisation. The enterprise mobility strategy cannot be one which is borne out of just one business unit. Enterprise mobility is an enterprise wide decision and needs to align to the overall business strategy.

Once the mobility strategy has been defined, aligned and approved, organisations now have a document that should be used to address vendor choices, device management, device and data security and user support.



## 2. People

Sometimes the largest drive towards enterprise mobility comes from those individuals who understand how and where mobility can positively affect their ability to work quicker and smarter. This enthusiasm comes with its own challenges as these individuals need to often be managed with great care as they become quickly frustrated by a slow pace of change. The converse of this is also true in employees who are reluctant to embrace enterprise mobility.

Within groups of people there are also different needs which need to be addressed to unlock different business benefits. In sales the need is for greater collaboration; for the executive it could be to compute and visualise data on the go.

The mobility audience in many cases can also include your consumer. When we are talking about the mobile engagement of your audience; the smooth flow or information and the user experience is critically important.

Organisations also need to include adequate training for staff to enable them to see and take advantage of the benefits that a mobile solution brings to their working lives.

## 3. Process

Process in the mobility context has multiple dimensions to it. Not only does the organisation need to plan for the migration and development of business applications on a mobile platform; but also with how this will affect those processes which are not yet moving to a mobile platform.

There need to be sound and well thought out processes which cover the entire lifecycle of applications; from their development; through to their deployment and routine upgrades and maintenance. The need for quality and seamlessly replicable results and experiences needs to be the key driver in the process flow of enterprise mobility.

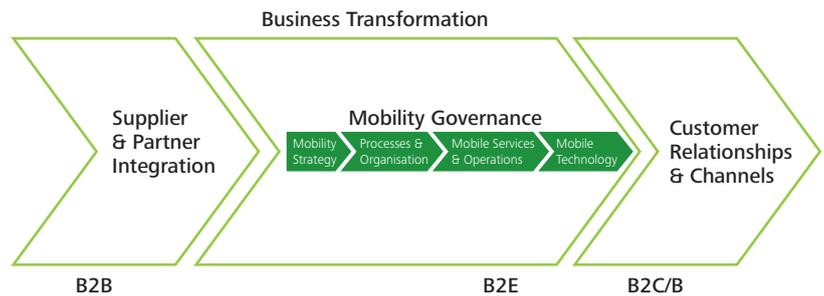
## 4. Applications

The applications themselves are where the rubber meets the road. The apps are the window through which stakeholders are going to interact with your organisation.

While these applications need to fulfil a business objective; they need to do this in a way that meets the expectations of the user community. In other words, apps need to be usable; functional and reliable.

Organisations need to plan around an application development roadmap to ensure that there is no duplication of effort around the development of apps. When a roadmap is in play it allows the organisation to have a clear line of sight as to how specific elements of apps and underlying architecture need to line up in order to maximise the gains and optimise expenditure.

Organisations are seeing some great advancement in operational efficiency, sales force effectiveness, workforce productivity, employee collaboration on the go through Business to Business (B2B) and Business to Employee (B2E) mobile apps; while Business to Consumer (B2C) mobile apps are seeing organisations enhance their competitive advantage and extend their customer reach.



With the application development showing the route to development and deployment; the organisation is now perfectly primed for a purpose built App Store which can house and deploy apps in a regulated and secure manner. An enterprise App Store allows for quicker and seamless deployment and allows for new stakeholders to quickly familiarise themselves with that apps are on offer.

## 5. Security

Security is arguably the most important aspect of Enterprise Mobility due to the dispersed nature of mobility. Essentially, if a device cannot be managed or an application is insecure – neither should be allowed to access information on the company network. These unfavourable characteristics are the vulnerabilities that hackers seek out in order to breach systems.

Mobile Device Management allows organisations to render devices inoperable and remote wipe devices that have been either lost or stolen. This is a critical aspect of enterprise security that should not be overlooked.

The usage of devices should be tracked as well. This is not for the organisation to be “Big Brother” but rather to ensure that any security breaches and vulnerabilities are immediately reported and closed down in order to protect the rest of the networks integrity.

## 6. Architecture

Mobility solutions need to integrate with complex enterprise systems. Considerable planning and attention needs to be paid in order to ensure that the two technologies are compatible as well as that in enabling mobile integration there are strict security and data integrity checks in place.

Ideally instances of architecture should be ring-fenced in order to test a mobility solution in order to make sure that there will be no vulnerabilities and incompatibilities when mobility gets released to the rest of the business. This testing phase is there to ensure not only that the architecture is sound, but also the solution as a whole.

## 7. Devices

When developing the device portion of the strategy, there are a couple of things that an organisation needs to take into consideration:

- 1 BYOD:** Are you going to allow privately owned devices to access the company networks and the enterprise app store. Running and storing sensitive enterprise data on private devices comes with its own set of special challenges and security concerns.
- 2 Range of devices:** Does the mobility strategy allow for a wide range of devices covering all operating systems and versions? Will users that have “feature phones” be able to interact with the enterprise or will it be restricted to “smartphones”? These are both questions which need to be answered in the initial planning and development phase of your organisations mobility strategy. These are especially relevant and outside of the organisations control if external stakeholders are going to be allowed to interact with the organisations systems.
- 3 Device consideration:** If you are going to issue devices to your mobile users; do you have a view as to which specific devices will meet your staff’s needs? In other words will the devices be used largely for data visualisation and BI; or will they be largely for data capture and transmission?

**Understand if your organisation is ready for enterprise mobility with the Deloitte Enterprise Mobility Readiness Assessment.**

# Balancing User and Business Needs

Enterprise mobility solutions that are truly effective are a delicate balance between the needs of the end user as well as the enterprise.

From a user's point of view, enterprise mobility needs to:

**Be easy to use.** It has to make the users life easier; made them more productive and allow them to get more work done in a shorter space of time. This is driven largely by the consumerisation and democratisation of IT; where staff are demanding that they are given a similar experience in working with their enterprise systems (through apps) as they are given when using their private apps.

**Support their personal devices.** In general employees are not content with having a device dedicated to work and another dedicated to their personal environment. Employees are demanding that the enterprise applications that they have to work with, integrate with their owned devices. The inconvenience of having to split one's life across devices is a concept that employees are no longer willing to tolerate.

Lastly, employees also want **Custom Apps**. The major reason for this is the app culture is because of the likes of Apple iTunes and Google Play Store. Apps mean that the employee can simply download it to their device and access it at the push of a button. The information is synchronised automatically to the organisations enterprise architecture and all configuration is handled automatically by the device.

From the enterprises vantage point; enterprise mobility needs to be cognisant of:

**Information Security.** Enterprise data passes through mobile devices constantly. This means that the device as well as the applications on that device need to be secure in order to ensure that any mission critical and sensitive data are not compromised.

**Device and application Management** are both crucial elements of enterprise mobility – specifically when looking at information security. Device management is concerned with the ability to remote wipe / kill devices that have been lost, stolen or otherwise compromised; to remote configure and update devices make it more efficient in forcing new policies and rules to multiple devices. Application management is concerned with the central updates and version control of sanctioned applications that can run and process enterprise information.

**Integration** of devices and enterprise architecture is an area of enterprise mobility strategy that cannot be overstated.

**TCO.** The total cost of ownership of any solution is an important factor organisations to consider and enterprise mobility is no different. The balance of costs versus benefits is an important one that can be quite complex. For instance, by taking advantage of trends such as BYOD, organisations can pass the cost of ownership and maintenance of devices on to their employees.

# TCO of Enterprise Mobility

The concept of Total Cost of Ownership around enterprise mobility is a complex one as there are multiple factors at play that can decrease the initial capital expenditure of the business. For example, some enterprises leverage BYOD; which passes the costs associated with the acquisition and support of the devices on to employees while the enterprise only supports the application.

Other than the costs associated with the device itself; there are other costs which need to be considered:

- New device migration. Users “upgrade” to new devices on a biannual basis
- Platform Upgrades. Platforms are becoming increasingly fragmented (iOS5; iOS6; iOS7; Jelly Bean; Ice-cream Sandwich; Gingerbread; etc.)
- Apps that are available to enterprise users need to be backwards compatible (compatible with older devices – especially is the devices are the employees “BYOD”)
- Due to combinations of the previous 3 points; the cost of application updates also needs to be factored into the TCO of enterprise Mobility.
- Bandwidth / data costs. The cost of transferring large amounts of data between the enterprise and mobile users and vice versa.
- The costs of maintaining mobile devices along with company laptops which are still a vital and indispensable part of task completion especially for many IT; accounts personnel etc.

## Controlling the TCO with MEAP

One way of controlling the TCO of enterprise mobility is through the use of a MEAP. A MEAP is a Mobile Enterprise Application Platform. A MEAP allows a large number of the above operational or usage costs to be effectively managed.

Essentially MEAPs address the difficulties of developing mobile software by managing the diversity of devices, networks and user groups at the time of deployment and throughout the mobile solution’s lifecycle. Unlike standalone apps, a MEAP provides a comprehensive, long-term approach to deploying mobility. Cross-platform considerations are one big driver behind using MEAPs. For example, a company can use a MEAP to develop the mobile application once and deploy it to a variety of mobile devices (including smart phones, tablets, notebooks and ruggedized handhelds) with no changes to the underlying business logic.

Platform applications are best for companies that wish to deploy multiple applications on a single infrastructure, scaled to the size of their current mobile field force and available in an online and offline mode. Mobile platforms provide higher level languages and easy development templates to simplify and speed the mobile application development timeframe, requiring less programming knowledge for mobile business application deployment.<sup>3</sup>

A MEAP allows your mobile infrastructure to easily scale with the businesses mobility needs; applications; devices; databases and workflows.

# Contacts

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## Footnotes

- 1 How to Reduce the Cost of Enterprise Mobility: Software; Published: 20 June 2013 ID:G00250362
- 2 Aspects of Enterprise Mobility as referenced in the SAP Enterprise Mobility presentation delivered at SAPHILA in 2010: <http://www.slideshare.net/alessandrobottega/gerard-sofianos-mobility-presentation>
- 3 Wikipedia's definition of a MEAP: [http://en.wikipedia.org/wiki/Mobile\\_enterprise\\_application\\_platform](http://en.wikipedia.org/wiki/Mobile_enterprise_application_platform)

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