

Mobility Manifesto: The mobile device is changing the customer experience and forcing organizations to rethink how they engage with their customers and employees.

Seizing the mobility moment Part 2 — The employee



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Second in a series of articles on the opportunities and challenges for the enterprise posed by the rise of mobile devices and applications.

Highlights

- Consumerization and the rapid proliferation of mobile technologies have blurred the edge of the enterprise.
- Employees expect a consumer-like experience when using enterprise mobile applications.
- There are emerging trends that are driving mobility penetration in the enterprise.
- Corporate mobility must now be part of your strategic business plan—but there are many pitfalls to avoid as you define your strategy.
- The days of just trying to “keep up” with advances in mobile technology are over.

Mobility is about improving experience—both for the consumer and the employee

Mobile isn't just about customers. It also allows for richer, deeper, and more personal experiences for **employees inside the enterprise**. Mobility touches every part of an organization and will change it as no other technology has changed it since the mass adoption of desktop computers in the 1980s.

Although companies are beginning to understand how mobile devices can be used to build customer loyalty, generate new revenue streams, and improve the customer experience, they are slow to realize how decision making, workflow, collaboration, content delivery, and the right information at the right time can improve the employee experience.

Enterprise mobile strategies need to consider the employee as the employee is ultimately the key internal customer.

These days, it's becoming harder and harder to say exactly where work ends and non-work begins. Everywhere you look, people are working, playing, and socializing on one single device: their smartphone. U.K.-based People Management released a report in June 2012 stating that 64% of workers continue to work by using their smartphones after hours.¹

Consumerization and the rapid proliferation of mobile technologies have blurred the edge of the enterprise.



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<http://www.peoplemanagement.co.uk/pm/articles/2012/06/smartphones-lead-staff-to-put-in-extra-work-hours.htm>

www.pwc.com/us/customerimpact

Mobility in the enterprise is also about creating opportunities that drive competitive advantage

In Part 1 of “Seizing the Mobility Moment,” we explored the notion that our mobile devices have become extensions of ourselves. These smartphones can now perform combinations of actions for us that we don’t even think about—things that certainly don’t require us to hit buttons or touch screens. Things like: automatically populating your location when posting a picture to Facebook; suspending texting for your teenager when they are driving; warning you when a sunny day is changing to rain; notifying you when your spouse arrives home safely. The list could go on and on.

In fact, at this very moment, your mobile device is likely logging information about your location. It’s capturing information about your movements and purchasing patterns. And it’s storing all kinds of information for you—and about you—and sharing that information in all sorts of ways.

And while that may in fact be a good thing for you as a consumer, if you are using this same smartphone for work, it may be a problem for your employer.

The enterprise is worried about what happens to all of this data—and all of the information contained in email, files, instant messages exchanges, financial records, and transactional documentation that is now mobile and no longer fully under their control.

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Mobile devices may be disrupting to the enterprise, but they also create fresh opportunities for enterprises to secure a competitive advantage. When used properly—and with the right levels of creativity—mobile devices can transform customer interactions and workplace collaborations.

Consumer Trends impacting the Enterprise

We see five emerging consumer trends created or affected by mobile technology that are impacting the enterprise.

1. Place-Space Convergence

“Place-space convergence happens when digital and physical experiences are combined, substituted, and/or integrated, at the individual, group, or community level. “This is often—although not always—facilitated by location, user, or other contextual data to enhance the experience,” says John Sviokla, a Principal at PwC. In the consumer world, applications like Blippar³ are driving innovative ways to shop and engage with physical objects.

Physical World ➡ Digital World

Marketplace ➡ Marketspace

² “Managing in the Marketspace,” Harvard Business Review, November-December 1994; “Exploiting the Virtual Value Chain,” Harvard Business Review, November 1995.

³ <http://www.blippar.com>

And because of this marketplace—and “marketspace” convergence all taking place on a single device—we are seeing that employees too expect to switch seamlessly between their physical world and the digital world. For example, in the workplace, a field technician might identify a piece of equipment by using a phone’s built-in video camera and a barcode or via proximity detection. And once that component is identified, everything about it is displayed (component function and recent alerts, user manual, trouble history, spare-parts availability, etc.) as the technician moves the phone around.

Place-space convergence takes augmented reality to a functional and productive level by synthetically overlaying digital information on to a real-world object.

The mobility trends in the consumer space are bleeding over to the enterprise space.

Today’s mobile device changes the way business gets done. Consumers are bringing their smartphones to work. Most don’t want to carry two devices—one for work and one for life. They want one device for both. As a result, they are more likely to expect consumer-like experiences.

2. Software as the differentiator

The importance of the hardware as the key driver of innovation is diminishing. It is the software that has become the differentiator. Most tablet and smartphone hardware is the same: the same form factor, no physical keyboard, network connectivity, a camera, and some sensors. From more than a few feet away it is difficult to tell these devices apart. But when you turn it on, these blank slates are very different. The software can turn these devices into almost anything. It can be telephone, a video phone, a wallet, a camera, a book or magazine, a television, a coloring book, a game machine, a diary, etc. The capabilities are only limited by your imagination. It is the device's ability to become almost anything that makes it so important in the enterprise. One multi-purpose device is the only computing device most employees need.

3. Pervasive Computing

This is about the "Internet of Things"⁴ and how we will deal with the overload of applications in the future. Pervasive computing is more than a "post-desktop model of human-computer interaction in which information processing has been thoroughly integrated into everyday objects and activities."⁵ It's

⁴ "That 'Internet of Things' Thing. RFID Journal, 22 July 2009.

⁵ "Human-computer interaction issues for mobile computing in a variable work

really about enabling everything around you as something you (or your mobile device) can interact with and engage. Pervasive Computing will require that we flip the *Finding Waldo* framework from one that forces you to search to find the needle in a haystack when you need it into one where the needle identifies itself at all times.

It is not difficult to see pervasive computing growing before your eyes. Look at your smartphone—how many apps do you have installed? 20? 50? 100? How about two years from now—will it have tripled? Septupled? If this model continues, it will eventually break under its own weight. Today there are over 650,000 mobile apps available—too many for mere mortals to filter. But, by flipping the model, the app identifies itself to you when you need it, and all of this functionality becomes much easier to manage.

4. Identity and Security

Information and device security are increasingly important issues as more and more consumers bring their personal devices to work and expect to interact with their employer. As enterprise information becomes more widely available to these devices, incidences of security breaches will grow both in frequency and scale of impact on companies. We are seeing a major push for mobile device management (MDM) solutions and a resurgence in the

context," Int. J. Human-Computer Studies, 2004.

need for security assessments and innovative ways to make security experience less of a barrier and more of an enabler. We see the following trends in identity and mobile security:

- Seamless hardware (NFC, security tokens, etc.) and software (OpenID, etc.) solutions are being deployed for user identification and payment.
- As mobile operating software providers continue to add new features and services to their operating systems and the opportunities for malware and malicious third parties software continue to grow.⁶
- Mobile wallets are expanding beyond the right side of the wallet (financial transactions). The left side of the wallet (loyalty and identity) are now beginning to emerge out of the lab. We are already seeing research into how a mobile device can identify its owner to a healthcare provider, or as a multi-factor authentication (MFA) mechanism for access to secure areas inside the enterprise, and even the government is investigating ways to use it as replacement for driver's licenses.

⁶ http://www.f-secure.com/weblog/archives/Mobile_Threat_Report_Q4_2011.pdf and <http://www.juniper.net/us/en/local/pdf/additional-resources/jnpr-2011-mobile-threats-report.pdf>

"It is this ability for the device to be a blank slate—letting innovation happen inside the software—that is driving mobile adoption in the enterprise."

5. Open Collaboration

The ability to collaborate with peers and companies in real time is quickly becoming one of the key differentiators between companies that can vs. companies that can't. This isn't just about a SoLoMoCo⁷ strategy. It's about acting on feedback to delight the customer. Enabling open collaboration in the enterprise via these devices also delights employees. A few things to consider:

- Consumer voices—amplified through channels like social media—can be tapped to participate in the product creation process.
- Customers are often willing to give up privacy in exchange for better personalization, engagement, and value.
- Vendors, partners, customers, and employees are all part of the same collaboration ecosystem – empowering them to engage without being tied down to a desk improves productivity.

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⁷ Social, local, mobile, commerce—a term used to describe how social and mobile devices are combining to change the face of collaboration and commerce.

Mobility Strategy for the enterprise can be complicated

There is no shortage of experiments with mobile technology among businesses large and small.

Tim Cook, the CEO of Apple, said in April 2012 that 94% of Fortune 500 firms have deployed or are in the process of testing iPads to be used by staff⁸. The early adopters are apparent in such industries as financial services, retail, and travel—and are typically those enterprises with intense, sometimes constant, contact with consumers, or those companies with large, distributed employee bases.

Certainly, a cohesive mobility strategy is essential for any leadership team that is keen to seize its mobility moment. The development of that strategy does not have to be a yearlong exercise that takes place in corporate huddles. In fact, it must not be. Nor should it be built according to a rigid blueprint. To grow your company's experience in mobility, it's important to experiment enthusiastically—and with learning for the future foremost in mind.

To start, many business leaders still need to come to terms with the fact that their employees also are consumers. As a result of that disconnect, many—if not most—

⁸ Apple earnings call, April 24, 2012.

employees today are ahead of their employers when it comes to using mobile devices.

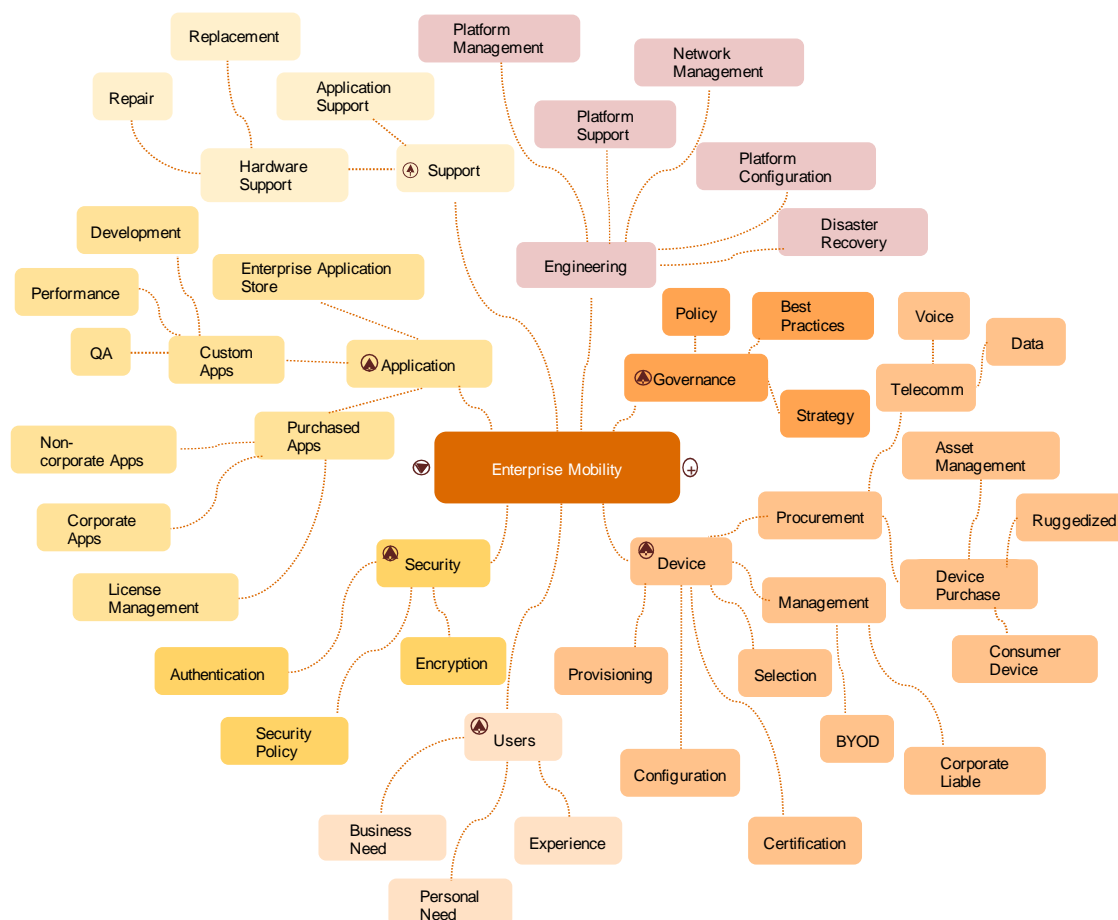
Gone are the days when workers passively accepted whatever IT handed them. For the past few years, IT has been struggling to figure out how to let employees use their own phones for work as well as play—without compromising the security or integrity of established business processes. When employees with smartphones can download apps that help them do their jobs better than the tools provided by IT can, it's all the more important to ensure that mobile strategy gets executed with employees in mind.

The fact is that mobile technology can do plenty to reengage employees and enhance their productivity.

Of course, there can be challenges to the notion of “bring your own device” and how mobile devices should be used by employees, not the least of which present real security and data privacy hurdles. But, typically, where there's a will to make it work, there's a technology and process solution that can meet the challenge.

A best practice lies in understanding the business need and ensuring that the mobile solution is properly designed to fit that need.

If you are in a leadership position, how you position your organization to embrace mobility will be a key factor determining how successful you will be in the future.



Graphic 1. The Enterprise Mobility Mind Map. This picture captures some of the complexity inherent in planning for and delivering effective enterprise mobility.

It is not a stretch to say that mobility will speed up—indeed, is speeding up—the full advent of the knowledge-worker economy.

But when it comes to the enterprise and mobility...well, it gets complicated.

PwC has worked on more than 60 mobility projects in the last 12 months. If we can identify one attribute that all those projects had in common, it would be complexity.

This Enterprise Mobility Mind Map (shown above) highlights how many different groups could be involved with mobility decisions in a large enterprise. Each group believes it owns some of the ecosystem, if not the whole thing.

And because mobility is a hot topic in many enterprises, some of these groups feel they can make their political “mark” with mobility.

It is not the technology that makes mobility complicated—it’s the political boundaries and agendas found within an enterprise culture.

The most common enterprise mobility mistakes

If you have been charged with creating a mobility strategy for your enterprise, here are some of the most common mistakes strategy teams have made in the past:

Lack of engagement by the business and resources in the field

At some organizations, the mobility challenge is a problem for IT or procurement. The truth? *Mobility is everybody's challenge.* That's why it's vital that any mobility program start with determinations of business needs, goals, and objectives.

Deliverables ought to be written in business-speak, not IT-speak. And when possible, workshops focused on user experience, customer-segment needs, use cases, and alignment with big-picture corporate objectives should be held.

A set of business expectations disconnected from technology, operating, budgeting, and timing realities

A core objective of workshops, work papers, and executive meetings should be to educate business users about what their requests mean in terms of impact and cost. It's easy to demand a feature, but informed decision-making can happen only when impacts and costs are understood.

A technology road map disconnected from business strategy

Technology and business roadmaps must be aligned with each other. Successful mobile initiatives build a matrix that aligns both the technology and business requirements and objectives and insures the needs of these constituencies are met.

An insufficiently broad and encompassing governance model

Mobility governance can get complicated, as we know. The problem is that everyone thinks they own it. From the user (it's personal) to purchasing (it's expensive) to engineering (it's technical) to security (it's risky) to application development (it's not in our skill set), it seems everyone is responsible for a piece of the strategy. And, indeed, they are. Mobility governance makes lots of room for discourse—and for collaboration.

Reluctance to think through and prepare for cultural impacts

Different device camps within the same organization can cause great cultural rifts. Not surprisingly, millennials and boomers adopt—and embrace—different mobility solutions differently. Listening-and-response cycles and training-and-measurement cycles become critical to the success of a mobility effort.

Insufficient understanding of the technology

Successful mobile strategies optimize the end-user experience by offering information and content via the device types and delivery methods that users prefer. This is not an iPad-versus-other-tablet argument. Just as with PCs and laptops, the hardware is a commodity. In fact, it's no longer practical (or even possible) to limit the hardware to a single platform. So, instead of controlling the hardware, focus should be on controlling access to data and building flexible services. Which particular device to buy is far less important than what software should be created and the goals the enterprise is trying to accomplish.

A tendency to overlook the importance of having the right talent

Attracting and retaining the right talent to build—and maintain—is one of the most difficult of challenges. This is a skillset that is in high demand. You may not realize you have a lot of talent already in your organization. Moving from HTML4 to HTML5 is very painless. Moving from C++ to Objective C is not that difficult from a coding perspective. A best practice for mobile talent starved organizations is to hire a very small team and have them train and cross-pollinate your existing resources. Taking talent for granted can be very expensive and result in project-destroying setbacks and delays.

Absence of clear executive ownership and support

Working closely with leadership, keeping leadership up-to-date, and drawing attention to risks and other business issues are sure ways to keep a project moving ahead.

Failure to embrace failure

IT must work hand in hand with the company's functions to build a fast-fail capability. Such a capability fosters low-cost mechanisms and processes that let an organization launch and run multiple mobility experiments at the same time. That way, initiatives that aren't working can be shut down quickly, and those that are can benefit from added

investment. Enterprises that get good at mobility often apply an agile-like development methodology that allows for cost-effective sprints of short duration.

* * *

Are you ready?

Those are by no means the only mistakes to be avoided or the only lessons to be learned, but they're among the most pertinent.

Enterprises today are addressing those challenges in a simple ad hoc effort to capitalize on the mobile phenomenon. And that's a mistake.

The entire enterprise needs to get behind mobility and address it strategically. It's that important.

So, are you ready to grab the possibilities and avoid the pitfalls on behalf of your enterprise?

Everywhere you look, you see iPhones, Android devices, and Blackberrys. Everywhere, each employee expects—and will likely soon demand—a seamless mobility experience. It's critical you help achieve that desire.

Do you see mobility as more of a danger to be avoided than an enabler to be embraced? That is, does leadership at your company view mobility as something to be resisted in an effort to “protect” the organization versus a challenge to be overcome so as to tap opportunity? You can guess which perspective your growth-oriented competitor is embracing.

Now is the time for business leaders to position their companies for the very different world ahead. This series will continue to offer insight and tips for addressing mobility inside your workplace and for your customers.

These conversations aren't always easy. And if they haven't started at your organization, they need to.

Just how effective has your organization been at seizing the mobility moment?

Workers are already using their mobile devices to interact and think differently. And by so doing, they're solving problems more quickly and more effectively than waiting for answers from management. A few snapshots:

- At one utility, line workers seek help from coworkers by taking and sending photos of difficult repair jobs.
 - At a large pharmaceutical company, field sales representatives have seen sales soar after they've shown time-pressed surgeons lively and colorful product demonstrations on their tablets.
 - Some Hollywood studios now plan the rollouts of their films after reviewing mobile-driven Twitter feeds just days after the previews.
 - In India, farmers can now use their phones to remotely monitor the operation of irrigation pumps. Today, many of them regularly access everything from crop prices to weather by phone. In many corners of the developing world, mobile-services providers are becoming de facto colleges, delivering education by phone.
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Still to come in the Mobility Manifesto series

Part 3: Social enterprise collaboration and other oxymorons

Mobile platforms throw open the doors to collaboration on a much broader scale—and, arguably, with more spontaneity. Emerging social and security trends will continue to compress the space between work and play. By focusing on much greater levels of collaboration—organizations are creating their own social ecosystem that requires ad-hoc partnerships, on-demand employees, to generate the best customer experience—on a global scale.

Part 4: Mobile wallets—Hype or money machine? How smartphones are (finally) bringing mobile payments to life

Mobile finance, mobile banking, and mobile payment opportunities are signaling the ways businesses in a range of industries can capitalize on near-field communications. This is not just about holding down transaction costs but also generating new revenue streams and bolstering customer loyalty. The mobile wallet is really an extension of ourselves: It is the first viable avatar.

Part 5: Mobile Heterogeneity and the future of the mobile enterprise—dealing with the “bring your own device” (BYOD) employee

Enterprise mobility is complicated—not because of technology—but because everyone thinks they “own it.” Procurement to IT to operations to security to business lines—everyone has an opinion. Add to this the confusion that occurs when employees begin bringing their personal devices to work and expect the technology organization to magically support these devices with all sorts of corporate applications that do not exist, and the challenges escalate quickly. We’ll discuss what is keeping CIOs up at night – and how organizations approach these challenges in a calm, collected, and constructive way.

Contact

Daniel Eckert

Director/CTO
Emerging Technology & Architecture
+1 (630) 217-6050
daniel.eckert@us.pwc.com

Paul D'Alessandro

Principal
Global Customer Experience
+1 (847) 910-5763
pmd@us.pwc.com

Joseph Lamano

Principal
Customer Impact Consulting
+1 (408) 817-4427
joseph.lamano@us.pwc.com

Scott Likens

Principal
Emerging Technology & Architecture
+1 (312) 286-0830
scott.likens@us.pwc.com

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