WHITEPAPER

UNLEASHING BUSINESS TRANSFORMATION THROUGH MOBILITY

Next-Gen Enterprise Mobility

BlackBerry

iOS

UNLEASHING BUSINESS TRANSFORMATION THROUGH MOBILITY

Contents

Enterprise mobility is rapidly evolving. Researchers and observers have identified an emerging enterprise mobility epoch characterized by workforce mobilization's growing influence on the productivity, profitability and competitive standing of organizations of all sizes. The impact of this evolutionary shift is expected to ripple through the enterprise mobility ecosystem, placing survival-of-the-fittest pressure on Enterprise Mobile Management (EMM) suppliers to deliver the tools for managing and securing next-generation mobile environments.

Expectations are high that the next-generation of enterprise mobility will deliver business-transforming opportunities to enterprises, organizations and government agencies. While a clear picture of what the next phase of mobility will look like is still coming into focus, the workforce mobilization objectives identified by business leaders are crystal clear: Improve business velocity, stimulate innovation and enhance competitive advantage by getting the right information to the right users at the right place and time.

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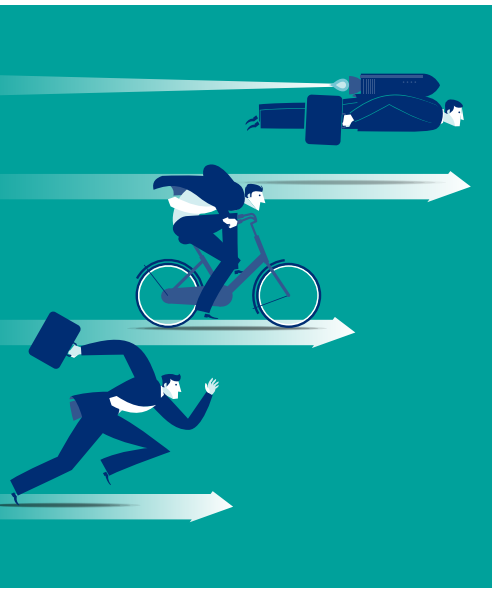

Introduction

The term “evolution” implies a gradual, almost indiscernible, rate of advancement. With technology, though, just the opposite seems to happen. Be it transistors or telecommunications equipment, technology tends to evolve in spurts, with each major increment ushering in market-altering advances. The enterprise mobility space is no exception. In fact, enterprise mobility, which appears to be progressing at an accelerated pace even by technology standards, is currently transitioning to a new phase in its development, according to industry observers.

Researchers at IDC say that a new, second phase of enterprise mobility is marked by mobile’s emergence as the primary information technology platform for businesses and organizations. This is in contrast to the first phase of the mobility movement, which the research firm says was characterized by a reactive approach to the massive influx of consumerization into the enterprise. While IT dedicated most of its efforts during phase one to adapting to the new demands of mobility, phase two will be focused on fully exploiting the productivity and business enablement capabilities that workforce mobilization brings to organizations of all sizes, according to IDC’s Mobility Maturity Model.

This new, productivity-driven phase of enterprise mobility may be particularly impactful on the prosperity of enterprises due to its close proximity and synergistic relationship to the previous major market disruption: the commercialization of the Internet. The Internet evolution has profoundly transformed – and in some cases decimated – several multi-billion dollar industries, including music, publishing and retail.

Mobility is viewed by many as the follow-up punch of a one-two combination that threatens to stagger centuries-old operational business models. The Internet made possible the “connected business,” which significantly accelerated the speed of doing business by streamlining relationships with suppliers, employees and customers. When the anytime, anyplace nature of mobility is added to the equation, the intimacy gap between businesses and those same entities shrinks even smaller. The opportunity for innovation created by broadband connectivity overlaid with mobility is limitless.

Anticipation that the next phase of enterprise mobility will usher in new levels of productivity is bolstered by widespread recognition that the first phase was largely a table-setting exercise – an adjustment period. Enterprises and their IT organizations were largely overwhelmed by the impact of consumerization and the instability it imposed on the traditional role of IT. Accustomed to managing a business computing environment dominated by equipment running a single operating system and tethered to the network, IT expended much of its energy in phase one struggling to rein in a stampede of new devices, operating systems and applications with a thin layer of oversight. In many cases, CIOs were forced to adopt stopgap approaches for multi-platform device control and management policies.

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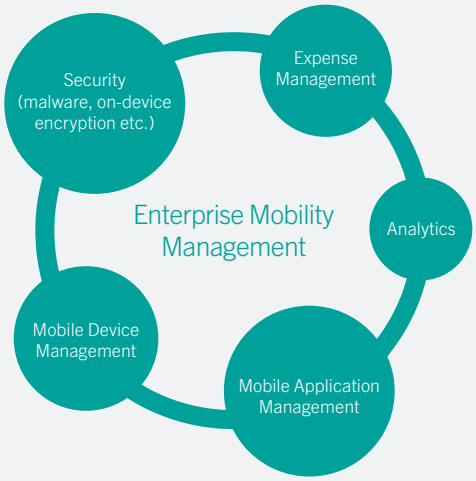
The short but dynamic history of the mobile device management (MDM) market reflects the phase-one mindset of IT. Market observers had identified at one point well over 100 MDM solutions. In addition to validating the inertia behind the enterprise mobility movement, that staggering number was indicative of both the low barrier of entry for basic MDM capabilities and the high demand from enterprises of all sizes for basic device management tools.

Not coincidently, the second phase of the enterprise mobility evolution is being driven, at least in part, by technology innovations that are empowering enterprises with advanced and diverse tools for managing mobile devices and supporting device policies. Basic MDM is now considered a foundational element of a broader multi-platform Enterprise Mobility Management (EMM) solution, which also houses application and content management capabilities, including containerization and application wrapping.

The major forces fueling the next generation of enterprise mobility, though, are the perceived

MDM... and then Some

In the beginning, there was Mobile Device Management, or MDM. As enterprise mobility has evolved, though, so have the mobile management and security requirements of enterprises and organizations. Though the MDM-to-EMM evolution is still in progress, the components of a modern-day EMM are depicted here by Lopez Research.



benefits to the overall prosperity of the organization. Despite the tactical and limited nature of the first phase of enterprise mobility, businesses saw enough to recognize the long-term possibilities of mobilizing employees. With a growing percentage of the workforce now empowered to do its job on the go and outside of traditional business hours, enterprises are well positioned to dramatically advance the agility, profitability and competitive standing of the overall business. Providing a mobilized workforce with access to core business processes is anticipated to significantly increase the velocity of business transactions and interactions involving workers, partners and customers – as well as lead to the introduction of new business models and supply chain improvements.

The remainder of this document will provide an early glimpse of the next generation of enterprise mobility, as well as its impact on the modern enterprise and the enterprise worker. It will also detail the manner in which the ongoing advancement of mobility in the workplace will influence the evolutionary development of enterprise mobility management.

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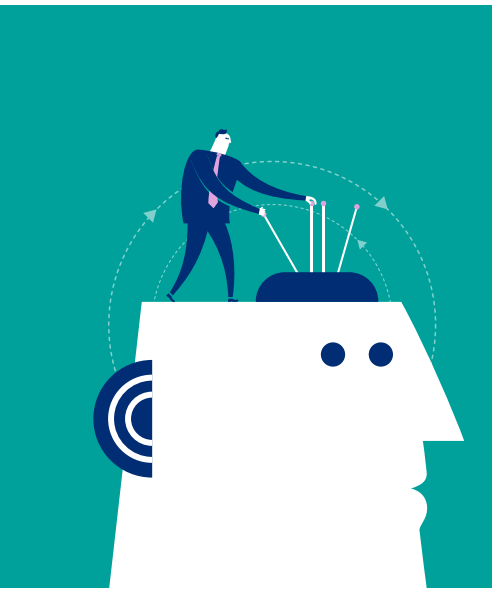

Mobile Mind Shift

The advancement of enterprise mobility is more than a technology evolution. For enterprises to fully reap the benefits of mobility, their adoption of advance mobility solutions must be accompanied by a willingness to rethink practices and procedures that may have been in place for decades. In some cases, a radical reorientation of the entire organizational structure will be required for businesses to take full advantage of the transformative properties of enterprise mobility.

Three enterprise areas likely to be the most heavily impacted by the advancement of workforce mobilization are IT, application development and worker productivity.

Evolving Role of IT

Say "so long" to the days of the IT department imposing inflexible policies and restricting access to corporate data to all but a few devices and applications – all in the name of risk management. While the protection of corporate information has never been more vital to the wellbeing of an enterprise, IT professionals must now find a way to provide ironclad security without impinging upon the productivity or experience of employees. While security concerns often placed IT in opposition to line of business leaders and end users in the past, the next evolutionary phase of enterprise mobility calls for an atmosphere of cooperation and shared goals between IT, end users and management. It marks the completion of the graduation of the IT department from a cost center to an engine of growth and a meaningful contributor to the competitive standing of the overall business.

With the elevation in stature, however, comes a paradoxical surrendering of authority. The imposition of an effective enterprise strategy is now so vital to the overall health of organizations that IT can now count on marketing and other business units, as well as the CEO, having a say in the company's future mobility direction. In a 2013 report, *Enterprise Mobility Predictions, 2014*, market research firm Strategy Analytics predicts that IT will increasingly surrender enterprise mobility decision making – and budget. "As more spending on IT solutions cluster around a new generation of competitive advantage solutions – many at the core of major industry transformation and disruption – IT budget control will continue to shift beyond the CIO and IT department into the hands of the line-of business executives," notes the report.

As already mentioned, IT's relationship with end users has been turned on its head. While summarily blocking an end user from accessing corporate data with an unapproved, personally owned smartphone or a commercial app may have earned an IT administrator a pat on the back as recently as a year or two ago, those same action today will likely raise eyebrows. IT must now treat end users as customers. One of IT's primary objectives in phase two of the enterprise mobility evolution is to provide users with whatever technologies and policies are required to optimize productivity.

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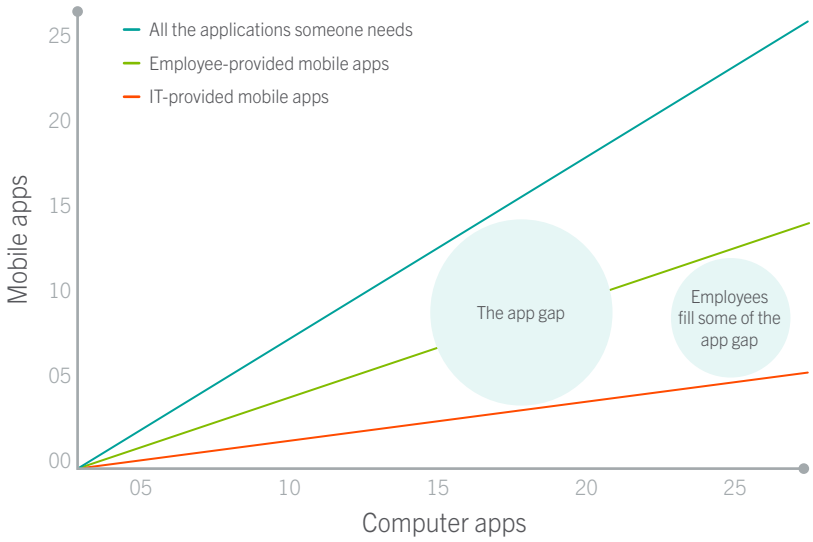
Application Development

From an application standpoint, enterprise mobility has largely been restricted to the mobilization of email and personal information management, such as scheduling capabilities. The lack of a more meaningful library of mobile applications for enterprise workers has created what Forrester Research Inc. refers to as an "app gap" in the November 2013 report *Workforce Personas and the Mobile App Gap*. The app gap is a chasm that exists between the number of supported mobile apps in an enterprise and the roster of applications employees believe they require to do their jobs more productively. While efforts to extend the accessibility of core business information, such as databases and internal systems, to mobile devices has been a trickle to this point, the growing recognition by business leaders that a new wave of application development will yield significant levels of return on investment (ROI) is expected to lead to a flood of development activities in the coming years.

Bridging the App Gap



Source: "Workforce Personas And The Mobile App Gap" by Ted Schadler, November 4, 2013

That doesn't mean that mobile app development is a simple task. The reality is that the mobile environment poses a significant number of unique challenges. Developers accustomed to designing applications for desktops tethered to corporate networks over terrestrial broadband or corporate WiFi will need to account for the unique security, connectivity and user interface requirements of mobile apps. By keeping these mobile-specific characteristics in mind, enterprises will be best positioned to deliver business-critical mobile apps that enhance the user experience, maintain the security of the network, reduce downtime and create a foundation for future innovation and business enablement.

An acceleration in the mobilization of core business processes also points toward an update in industry-specific mobile app development, a departure from the phase-one concentration on horizontal communications and productivity tools. The creation of innovative mobile apps for the financial services or healthcare sectors, for example, will require app development teams to possess intimate knowledge of esoteric business segments and related business models.

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Worker Productivity

Survey after industry survey of CIOs and other enterprise business leaders cite improvements in worker productivity, which in turn are expected to contribute to gains in profitability and competitive standing realized by the overall organization, as the top objectives of their enterprise mobility initiatives. The phase-one advances in worker productivity were largely realized by enabling workers to communicate and collaborate outside of traditional work environments and hours of operation – essentially an expansion of the work day. Phase-two productivity increases are expected to come not from employees working longer, but more efficiently.

Consider the time-saving benefits of empowering sales reps to deliver demonstrations, check inventories or process orders from the customer's location, or of fieldworkers accessing diagrams and manuals from their smartphones. Advanced mobility is also expected to lead to non-financial productivity improvements, which are more important than bottom-line improvements to public sector agencies, especially those providing emergency services. By providing case workers with the ability to remove clients from dangerous environments without needing to return to the office to process protection orders from their desktops, public sector organizations, for example, can increase both the efficiency of their agencies, as well as significantly impact the lives and wellbeing of citizens.

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Next-Generation Enterprise Mobility

The next phase in the evolution of enterprise mobility is expected to bring major gains in overall productivity. Several simultaneous transitions within the enterprise are driving the evolution process. An examination of these transitions, many of which are already in mature stages and illustrated in the following chart, paints a revealing portrait of the next generation of enterprise mobility.

Next-Generation Enterprise Mobility

	First Generation	Second Generation
Planning approach	Tactical	Strategic
App development approach	Afterthought, limited resources, bolt-on mobile front end	Mobile first, ROI opportunity, standards based
App development orientation	Mostly horizontal	Mostly vertical
Major influencer	BYOD, IT Consumerization	Expanded access to behind-the-firewall information, apps
Management Orientation	Device centric	application centric, user centric
Primary IT objective	Risk management	Business enablement
Supported Devices	PCs, smartphones, tablets	PCs, smartphones, tablets, wearables, M2M
Emblematic applications	Email, PIM	Reengineered mobile front ends to core business processes, e.g., CRM, sales force enablement, etc.
Function of IT	Cost center	Contributor to company profitability, competitive advantage, customer service and employee satisfaction
Nature of productivity gains	Extended work hours	New business models and overall business transformation
Relationship of IT to end users, LOB	Confrontational	Cooperative
Major stakeholders	IT, CIO	IT, CIO, LOB, CEO

Overall Approach

Enterprises were essentially forced into a tactical mindset by the initial influx of mobility. The concept of workers accessing corporate data and resources using personal communication devices was largely foreign to most IP departments, which perceived the consumerization of IT as more of a threat than an opportunity. Job number one was protecting behind-the-firewall servers from attacks through mobile endpoints. Extending the productivity of end users through mobile technology was a fairly low phase-one priority for most organizations.

Reactive thinking is being replaced with strategic planning in phase two of the enterprise mobility evolution. Even without IT's cooperation – for the most part – business leaders quickly recognized the phase-one benefits of workforce mobilization. Empowering users with anytime, anywhere computing and communications led to immediate upticks in overall productivity. Mobility introduced new benchmarks in employee collaboration, as well as interactions with partners and customers. With IT now fully on board – ideally – enterprise business leaders have identified mobility as a major business objective. Putting in place long-range strategic goals for further evolving workforce mobilization is the driving force behind the next phase of the enterprise mobility evolution.

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Mobility Management Orientation

The first phase of enterprise mobility – dominated by BYOD – was all about devices. What little management enterprises and organizations applied to the mobile workforce was done at the device level. The primary shortcoming of a device-centric approach is the lack of granularity. Common IT operations, such as wiping data in the case of a lost or stolen smartphone or tablet, had to be executed on the entire device, resulting in personal information getting swept away with any work-related information. Not only did this raise the ire of end users, it kept them away from IT, contribution to the formation of shadow IT activities within many organizations. The intermingling of corporate and personal information on the same device is also a major contributor to information leaking outside the organization through consumer communications channels, or the corruption of sensitive data through mobile-oriented malware attacks.

The transition to an application-oriented approach to mobility management within the enterprise is already well underway. Responding to the shortcomings of a device-centric approach, many businesses are implementing technologies, such as containerization and enterprise application stores, that enable IT administrators to control portions of a mobile device, such as a work space reserved for business-only content, or an individual application. This added degree of granularity is instrumental in reducing the threat of attacks and data leakage, as well as providing end users with the ability to conduct work and personal computing and communications activities on the same smartphone or tablet without concern of losing personal data or invasions of privacy. When combined with a multi-platform EMM solution, application-oriented mobility management delivers enterprises to the brink of end user nirvana: the ability to access corporate data regardless of their location or the device they are using.

Application Arsenal

Making corporate email accessible from mobile devices - the emblematic achievement of phase one of the mobility movement – profoundly impacted employee productivity and collaboration. But most enterprises expect to significantly eclipse those productivity advancements during the next phase of enterprise mobility. The limited focus on corporate email, personal information management tools and a smattering of content sharing and syncing was largely the result of IT's wholly justified preoccupation with security. Storing behind-the-firewall data on anything but a secured PC that's hardwired to the network and owned by the corporation is anathema to IT professionals. With consumer-oriented smartphones and other mobile devices entering the enterprise in droves, few CIOs in the past few years felt comfortable mobilizing core business processes in a meaningful way.

The next phase in the evolution of enterprise mobility, according to a consensus of observers, will be fueled by a rapid acceleration in the development of compelling mobile apps and the efficient mobilization of core business processes. While the early years of enterprise mobility were largely about extending the work hours of employees by making it possible to conduct some business outside of traditional office settings, the next chapter in the movement is focused on empowering employees to do business in real time by delivering the information they need to the point of interaction – with coworkers, partners or customers. By dragging core work processes into the business moment, whether that's an employee collaborating from an airport, the resolution of a supply chain issue, or at a face-to-face visit with a customer, enterprises can increase the efficacy and the velocity of their overall businesses.

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Major Stakeholders

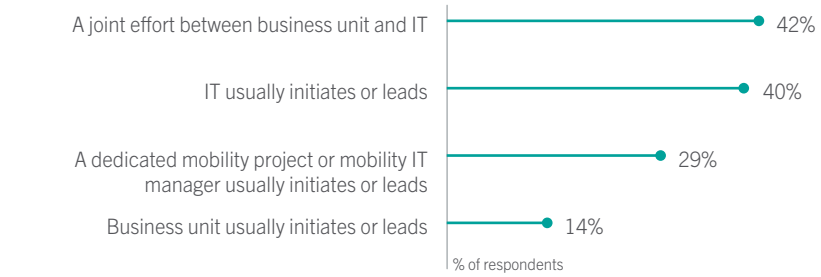
In terms of strategic planning, the center of the enterprise mobility universe has shifted significantly. Once centralized with the CIO, enterprise mobility planning in many organizations is moving toward a distributed model. Line of business leaders are now activity directing the course of workforce mobilization within their business units, with implications for the entire organization. Industry analyst Jack Gold, of J. Gold Associates, estimates that roughly 65% of enterprise mobility implementation and purchasing decisions are driven by LOB, rather than IT.

While this activity has been going on for some time now, it was mostly done in the shadows. The second phase of enterprise mobility is expected to drag these previously independent and uncoordinated – with the rest of the business – activities into the light. While the IT department may no longer have the loudest voice among those involved in the strategic direction of the organization's enterprise mobility planning, it can play an influential role by shepherding the implementation of the strategy and coordinating the efforts of the various business units into a cohesive plan of operation.

Corporate Collaboration

A 2014 survey by IDC revealed that 42% of IT decision makers now see the strategic direction of mobility within an organization as the shared responsibility of IT and business units.

How are decisions made around mobility at your organization?



Source: IDC's 2014 MES/MEDS Survey, February 2014

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Next-Gen EMM: A Preview

It's almost impossible to overestimate the impact of external factors on an evolutionary process. The development of nearly anything will be constrained, sometimes severely, if environmental conditions are not optimal. The same is true of the pace and potential of the evolution of enterprise mobility. While an adequate budget, proper planning and full commitment from IT and business leaders are required to realize the full potential of enterprise mobility, the most critical environmental factor is a flexible, extensible and efficient multi-platform EMM solution.

During the first phase of the enterprise mobility movement, many organizations adopted stopgap solutions to contain the flood of devices – both corporate-issued and personal - flowing into their businesses. Many of these solutions, hastily designed and built to provide rudimentary device and application management capabilities, lacked the technical underpinnings to fully nurture the mobility aspirations of most businesses or organizations. EMM platforms capable of advancing organizations to the next phase of the enterprise mobility evolution through business transformation will need to excel in each of the following areas:

Automation and Self-Service

End users have grown accustomed to living in a Do It Yourself (DIY) era. Self-help websites are the first places many consumers and workers now turn for expert assistance, whether it's medical, financial or technical. An EMM platform that provides easy-to-use and navigate self-management and support capabilities will empower end users to take much of the responsibility for managing their mobile environment into their own hands. In addition to reducing the burden on IT staffs, self-service facilities appeal to the portion of the workforce that is still anxious over ceding oversight of their personal communications devices to the IT staff. At minimum, users should have the ability to perform rudimentary – but important – device management tasks, including the ability to wipe data in the case of a lost or stolen smartphone or tablet.

Automation and ease of use is not just for end users. IT administrators also require dashboards and management systems with the flexibility to allow administrators to customized the look and feel of the interface and automate multiple functions. Tight integration with enterprise directories for example, make it possible for IT to automate the process of ensuring employees are supplied with the apps and mobile polices to do their jobs. By associating a set of apps and policies with an Active Directory group, for example, a next-generation EMM solution will automatically customize the mobile environment of employees as they are added to an Active Directory group.

Context Management

At one level, business mobilization is all about timing: Getting the right information to the right person at the right time. Accordingly, the ability to draw the most efficiency out of a mobile experience is dependent on syncing the delivery of information with locational and temporal conditions. A baseline requirement of next-generation EMM solutions is the ability to create context-dependent policies, such as enabling a mobile device's camera or GPS to work only during specific hours or not work when the smartphone is in a specific location.

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Moving toward contextual mobility management is consistent with a transition from a device-centric approach to EMM to a user-centric approach. A user-centric approach to EMM, which provides end users with a consistent set of policies and capabilities regardless of device type, is mandatory for the next generation of enterprise mobility. Any EMM solution designed for this environment will need to manage applications and data residing on a broad range of end points.

The Enterprise Device Evolution

The initial phase of the enterprise mobility movement was characterized by a flood of mobile devices into the workplace. IT would barely contain the seemingly never-ending stream of smartphones and tablets employees were toting into the office when a second wave of devices, all with new features and operating systems, would hit the enterprise.

The good news for CIOs and IT staffs around the world is that the conveyer belt of new devices entering the enterprise appears to be slowing down. Industry observers report a deceleration in the rate of innovation in the overall smartphone and tablet market segments, which is influencing how often employees purchase new devices. With workers hanging on to personal devices a little longer than in the past, IT has been able to catch its collective breath. The respite, experts surmise, has contributed to an evolutionary advance in enterprise mobility that's defined by strategic planning, rather than a perpetual reactive state.

The bad news is that the mobile device conveyer belt is about to crank up again. By all indications, a wave of wearable devices, accompany by a collection of sensors and other mobilized equipment that is generally categorized as machine-to-machine related, is set to descend upon the enterprise.

Though Forrester Research estimates that it will take enterprises a decade or more to fully adopt wearable technology, the initial phase of adoption will take place from 2014-2016. Enterprise wearables will make their way into several vertical industries, including healthcare and public safety sectors, during this timeframe, according to the January, 2014 report *The Enterprise Wearables Journey*.

The major implication of this expected influx of mobile-enabled devices is a dramatic increase in the total number of mobile end points within an enterprise, as well as a likely increase in the device-per-user ratio. The latter statistic is driving a device-centric to user-centric transition in the mobility management space.

With the typical enterprise knowledge worker likely to be accessing corporate information from multiple mobile end-points, a user-centric approach to EMM is required to ensure that employees are able to access the content they need regardless of the device type they are currently using – and that work-related data is kept separate from personal information stored on employees' smartphones, tablets or, eventually, wearable devices.

Beyond Smartphones

While smartphones and tablets (along with laptops) make up the vast majority of mobile enterprise endpoints, it won't be long before they have plenty of company. Several analyst firms predict that wearable devices, such as connected watches or eye glasses, will contribute significantly to the next wave of consumer-oriented communications and computing devices to enter the enterprise. The Internet of Things (IoT), which roughly describes the mobilization of devices, such as sensors found in cars, vending machines and medical equipment and not typically associated with a human operator, may eventually bring billions of new mobile end points into the enterprise.

Jack Gold of J. Gold Associates has coined the phrase Enterprise of Things (EoT) to describe the infiltration of wearable products, such as smartwatches, fitness bands and other mobilized devices, into the enterprise. Though Gold predicts that it will take a few years for the EoT to develop, he estimates that a typical enterprise will eventually need to deal with tens of thousands of corporate connected mobile devices that fall outside of smartphone or tablet classifications and that the overall impact will be far greater than current BYOD challenges.

A next-generation EMM solution will need to keep tabs on all of these new end points – along with a large cross-section of smartphones and tablets. An EMM solution's ability to support a diverse universe of devices will significantly simplify IT's efforts to ensure the company's fleet of connected delivery vehicles, for example, are updated with the most recent operating system. For healthcare organizations, the management of remote monitoring equipment could mean the difference between meeting and not meeting regulatory compliance requirements. The bottom line is that every device that interacts with behind-the-firewall servers represents a potential backdoor into the corporate network that must be monitored and secured.

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Solid Security Foundation

All of the attention focused on potential productivity gains associated with an acceleration of workforce mobilization could give the impression that security has diminished as an enterprise mobility priority. Just the opposite is true. The need for a rock-solid security foundation will only increase as mobile end points start to store applications and content increasingly critical to the financial and competitive health of the organization. Though the opportunity for security breaches, both accidental and purposeful, increases exponentially in phase two of the enterprise mobility evolutions, a real danger exists that business leaders will tunnel vision on the transformational potential of enterprise mobility and take shortcuts with security.

The most effective means for ensuring that security will not be sacrificed in the name of business enablement is a next-generation EMM solution with a solid security foundation. Security cannot be an afterthought – a bolt on. It's equally imperative, though, that security is transparent to end users, placing no constraints on user satisfaction or business enablement. The tight integration between an EMM solution and a mobile app development platform can help to ensure that security is automatically integrated into business process mobilization efforts.

Mobile Security: The Foundation of Next-Gen EMM

The poet Robert Browning wrote that "a man's reach should exceed his grasp," a 19th century source of inspiration for countless individuals and organizations who have accomplished great things by striving to achieve goals and surmount obstacles they were told were unachievable and insurmountable.

Even if they don't know it, hundreds of businesses and organizations around the globe are putting Browning's words into action. Organizations of all sizes are poised to stretch the transformative potential of enterprise mobility through dramatic acceleration of business mobilization initiatives. These activities promise to revolutionize businesses – and in some cases entire industries – by opening up core business processes to the innovative opportunities that mobility presents.

With opportunity, though, comes risk.

A real danger exists that business leaders, tunnel visioning on the transformational potential of enterprise mobility, will take shortcuts with security. Survey after survey shows that the productivity improving properties of enterprise mobility are the top priorities of business leaders. It is imperative that in their rush to reap the business-transforming benefits of mobility business leaders do not inadvertently sacrifice security at the altar of user satisfaction and business enablement.

While organizations pushing the productivity envelope of enterprise mobility should continue to take Browning's advice to heart, they must also recognize that overreaching without the protection provided by an end-to-end mobile security net can result in calamity. The reality is that "good" security isn't good enough to mitigate the increased exposure to data breaches, as well as compliance and privacy violations, that the next-generation of enterprise mobility will bring.

Security is the backbone of enterprise mobility. Late-to-market mobility management solutions offer only cursory security capabilities. They lack the foundation to enable organizations to introduce user-pleasing and business-transforming mobility advancements without exposing data to loss or attack.

An axiom for businesses to live by is that security cannot be an afterthought, something bolted on to buttress a wobbly foundation. The mobile enterprise movement is progressing at too fast a pace to afford vendors – and organizations - the luxury of playing catch up with security.

Cybersecurity is a work in progress, never to be fully completed. As mobility is set to take a leading role in the transformation of businesses and organizations, all segments of an organization involved in the strategic planning of a mobility strategy must be fully awake to the fact that safeguarding the exchange of information between corporate servers and mobile devices should never be given short shrift.

Reporting and Analytics

The reach of big data extends deep into the mobility management domain. To optimize the mobile experience across the enterprise, IT needs to be able to tap into a rich vein of information about the use and performance of mobile devices and the apps running on those devices. To process and display this critical information, a next-gen EMM should possess a graphical system management dashboard capable of supporting customizable charts that display critical device and app information.

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By mining data from the mobile environment, IT admins are able to uncover a wealth of information about trends and other statistics that can be leveraged, in real-time if required, to optimize your workforce mobilization efforts – in terms of total cost of ownership, app usage and work productivity. Some of the data that should be available to admins include information about device activation and device usage, such as the most popular devices in the organization by model, by carrier or platform. Application information, such as the most utilized mobile apps – and how they are being used – is also valuable data. It's also imperative that a next-gen EMM solution be able to assist businesses, especially those operating in regulated industries, such as financial services, healthcare and government, in maintaining compliance with mandated regulations and requirements. Extensive messaging and voice archiving capabilities is a baseline requirement.

Scale and Flexibility

Every organization has unique requirements for mobile device management. Some government organizations, as well as other regulated businesses, may even need to employ multiple device management strategies across a variety of use scenarios and risk profiles within the organization. Device management policy requirements may also vary from business unit to business unit, country to country or even employee to employee. Organizations must also be able to manage devices based on employee role, updating polices, for example, when an employee moves from an unregulated position to a regulated one. A user-centric approach to EMM enables businesses to assign a variety of device management policies, including Corporate-Owned, Business-Only (COBO), Corporate-Owned, Personally Enabled (COPE) and BYOD, which can be administered from a single console and easily updated.

Given the anticipated growth within the enterprise of smartphones and tablets, as well as an expected insurgence of wearables and non-human-operated mobile devices, such as sensors, scalability is a core requirement of an EMM solution built for the second phase of the enterprise mobility evolution. To reduce the cost and complexity of a premises-based installation, a next-gen EMM solution should be capable of supporting at least 25,000 devices per server and 250,000 devices per management domain. It should be capable of eventually scaling to handle a million or more devices.

Advanced Application Management

With the expansion of the enterprise app portfolio from email and other productivity tools to business-critical work processes playing a prominent role in the evolution of enterprise mobility, application management is an obvious requirement of the next generation of enterprise mobility. Any mobile application management (MAM) solution built for the future will need to distribute and manage all applications accessible to end users, including those created in house, those provided by a third party or apps downloaded from a commercial application store.

An enterprise-maintained mobile app store is a key component of an overall MAM solution. It's from an app store, which often functions as a centralized application management and distribution depot, that lifecycle management functions, including onboarding, deployment, security, updates and retirement, are administered. A next-gen app store must be capable of selective distribution, such as doling out apps or updates by group or policy. The bottom-line objective of a next-gen app store is to get the apps that users want and require on to their devices whenever and wherever they need them. The danger of failing at this task is that end users will seek out the apps they need to best do their jobs from alternative sources, exposing corporate information to manipulation by applications outside of IT's oversight.

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Conclusion

The next-generation of enterprise mobility is expected to deliver business-transforming opportunities to enterprises, organizations and government agencies of all sizes. While a clear picture of what the next phase of mobility will look like has yet to come into full focus, the workforce mobilization objectives identified by business leaders are crystal clear: Improve business velocity, stimulate innovation and enhance competitive advantage by getting the right information to the right users at the right place and time.

The impact of this evolutionary shift will ripple through the enterprise mobility ecosystem, impacting enterprise IT, application development and business workers in particular. The transition is also placing survival-of-the-fittest pressure on multi-platform EMM solution suppliers to evolve their offerings to meet the security and management requirements of next-generation mobile environments.

Putting a Price Tag on Productivity

Enterprise mobility remains a business model without quantifiable validation. IT and business leaders hold high expectations that further investment in the mobilization of their workforces and critical business processes will result in productivity improvements that will impact profitability and competitiveness.

Nearly 80% of IT and security professionals identified an increase in worker productivity as the greatest benefit of enterprise mobility in a recent survey commissioned by Dimension Data.

But how do you affix a price tag to that anticipated productivity? In the first phase of the enterprise mobility evolution, roughly defined by the extension of work hours though anytime, anywhere access to email and other basic productivity and collaboration apps, worker productivity increases could be calculated in a back-of-the-napkin fashion.

For the sake of simplicity, assume the integration of smartphones and tablets into the day-to-day duties of the typical worker resulted in 15 minutes of additional daily productivity per worker when averaged out across the entire employee base. Using this scenario and assuming a proportional relationship between revenue and work hours, a company with 100 employees and revenues of $10 million could theoretically see an annual revenue boost of $310,000.

The next generation of enterprise mobility, though, is expected to create revenue-generating opportunities that are nearly impossible to calculate. Businesses and organization are looking to reap transformational gains from the acceleration of their mobility aspirations, which depend heavily on the mobilization of core business processes. Businesses are counting on further mobilization to lead to new sources of revenue. In addition to boosts in worker productivity and efficiency, these gains are expected to come from the introduction of new services and products, as well as through new business acquired through improvements in competitive positioning that attract new customers.

The Orlando Brewing Co., a beer manufacturer and supplier active in Florida's Lake Buena Vista region, experienced significant productivity and competitive advances through the adoption of a custom corporate application leveraging mobility and real-time sales and inventory information, according to company officials. The mobile app allows company representatives to access their customers' inventory and sales information at any time from their smartphones. This capability significantly increases the brewing company's responsiveness, ensuring that their customers do not run out of product and that it is supplying the bars and restaurants it serves with the beer best matched to their clientele. See https://www.youtube.com/watch?v=xuxJUV9HYSI for more information.

Annual revenue	$10Mil
Workers	100
Additional productivity increase	15min
Average productivity increase per worker, per day	3.1%
$10Mil x .031	= $310k

Not every organization will reap the same business-transforming benefits of mobility as the Orlando Brewing Co. The case study offers evidence, though, that the business-generating potential of mobility is – at least for now – priceless.

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Enterprises will be challenged to stay focused on their strategic workforce mobilization objectives amid the potential chaos the coming transformation will bring. Adhering to the following best practices and guidelines will increase your organization's odds of not only surviving, but thriving, in the next phase of the enterprise mobility evolution:

1 Work with experienced partners

The MDM and EMM market is saturated with vendors, the majority of which are recent entrants offering basic device management capabilities for personally owned devices. The demands of the next phase of enterprise mobility will require an EMM solution built on a solid and well-established security and management foundation.

2 Appoint a chief mobility officer

The distribution of responsibility for enterprise mobility planning and execution across multiple business units and IT begs for a C-level position focused exclusively on mobility. Reporting to the CIO or even the CEO, the chief mobility officer would hold the primary responsibility for overseeing your business's enterprise mobility strategy.

3 Consider outsourcing

Enterprise mobility's evolution is so rapid as to be overwhelming to some organizations. Though an in-house approach is preferable, considering the strategic importance of business mobilization, some organizations should consider working with a services provider to oversee all or a portion of their enterprise mobility strategy.

4 Don't duplicate business processes

While moving a business process to a mobile environment with little or no modification may be appropriate in some instances, enterprises should consider business-process reengineering as a viable option as part of any mobilization project.

5 Move to a user-centric management approach

The first step in the transition from a device-centric to an application- or user-centric mobility management approach is to identify distinct user roles within the organization. While there's no magic number of use cases, some enterprises have discovered that large workforces can be efficiently segmented into five or six major user groups, all managed with a distinct set of policies.

6 Align business and mobile strategies

Given the potential transformative impact of mobility on the overall performance of many businesses, this may be a no-brainer, accomplished as easily as involving the CFO and CEO in the planning of your mobile strategy.

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