Practical Enterprise Mobility

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Introduction

In the traditional IT model of a few years ago, when the employees of a company needed to access an enterprise application or business related data, the employee was almost always located in a company office and used a PC or laptop. In virtually all cases, the application and/or the data that the employee needed to access resided in a physical server or storage device in the company's data center.

One of the advantages of the traditional IT model was that it was relatively easy to support. That relative ease of support came in part because the model had been in place for so long that it was well understood and in part because the IT organization controlled the end points. In addition, these endpoints, the PCs and laptops in the offices and the servers in the data centers, were similar and ran a common set of software. The control of these end points positioned the IT organization to be able to manage, secure and optimize the end-to-end communications.

However, the age and static nature of the traditional IT model has resulted in most of the business value that it could deliver being achieved and little ongoing value being derived. In an obvious reaction to the reduced level of new business value coming from the traditional IT model, several years ago many industry analysts and authors began to counsel IT organizations that the primary challenge and opportunity they faced was to align IT with the business. In addition, some authors, such as Nicholas Carr went even further. In an article in the Harvard Business Review[1], Carr made the argument that on a going forward basis that it would become increasingly difficult, if not impossible, for an organization to enjoy a competitive advantage in the marketplace based on how they utilized IT because IT functionality had become a commodity.

The IT environment has changed dramatically in the last few years, and in many cases these changes have demonstrated that leading edge businesses can leverage IT to enjoy a competitive advantage in the marketplace. Well-documented examples of such changes include the broad adoption of varying forms of virtualization and cloud computing. A further example that has been discussed extensively is that in the current business environment millions of mobile employees around the world access enterprise applications and applications on a daily basis using fixed networks and laptop computers. However, in the vast majority of cases, IT organizations have only implemented mobility in a very tactical fashion and hence have to date experienced relatively limited business benefit.

This is the first in a series of brief white papers, videos and Webinars the goal of which is to help IT adopt a new strategic, and yet practical approach to enterprise mobility. To achieve that goal, this series will describe a simple, clear and affordable path to embracing mobility in the enterprise, and in so doing unlock the huge potential business value that mobile technology offers.

[1] http://hbr.org/product/it-doesn-t-matter/an/R0305B-PDF-ENG

BYOD is not Enterprise Mobility

Up until a couple of years ago, when most IT organizations implemented mobility they attempted to mirror the traditional IT model and tightly control the types of devices that employees could use to access corporate resources. For example, it was common two or three years ago for IT organizations to either prohibit any personally owned devices to access the network or to standardize on one device, usually a Blackberry, which would be issued to selected employees and allowed limited network access. Since this time, the number of sophisticated new mobile devices available has exploded, and users have become increasingly sophisticated and demanding in their mobile behavior.

As previously noted, most IT organizations have implemented mobility in a tactical fashion to date. A typical first step that IT organizations take relative to mobility is the expansion in the types of devices that they allow to access limited corporate resources. As part of this expansion, commonly referred to as Bring Your Own Device (BYOD), employees use their own devices (e.g., smartphone, tablets and phablets) to access a small number of enterprise applications. While BYOD has fostered short-term employee morale and has helped the bottom line of companies by allowing them to avoid capital investments in end user devices, it has not provided companies with a sustainable competitive business advantage.

MDM is not Enterprise Mobility

Most IT organizations that have adopted BYOD have also implemented mobile device management (MDM). Although MDM gives IT organizations visibility and control over the mobile devices that can access the corporate network, it is quite limited in functionality. For example, MDM can help IT organizations perform inventory management for mobile devices and it can also provide some basic self-service capabilities, such as automatically provisioning e-mail settings. MDM, however, doesn't help IT organizations provide employees with seamless secure access to the wide rage of applications and the data they access every day from their desktops. The best that MDM can do is to configure virtual private networking (VPN) functionality on the mobile device. However, as described below, VPN is not an appropriate solution for mobile access. As a result of these deficiencies, IT organizations shouldn't confuse implementing MDM with implementing a mobility strategy.

As mentioned, VPN isn't an appropriate solution for mobile access. That follows in large part because VPN was designed for remote office workers who log onto the corporate wired network using devices such as laptops that are company-owned and whose goal is confined to accessing corporate resources. Another of the many recent changes in the IT environment is that users typically utilize the same device to access both personal and business-related content and applications. Given that VPN was designed as a device-level connection into the corporate network, this means that all applications, whether they are personal, business, spyware, or some other type of application, share an open connection into the network once a VPN tunnel is created. In addition to the large security concern that this approach creates, VPN is complex, hard to deploy and manage, and it doesn't fit well with the requirement for a single sign-on capability. VPN is also expensive, slow and it typically delivers a poor user experience over a high latency mobile connection.

An effective mobility strategy, the kind that unlocks significant business value, is much more than the typical BYOD initiative that provides e-mail to mobile workers and that makes a limited set of existing applications and data accessible from mobile devices. An effective mobility strategy is based on rethinking how employees will share and consume information in the continually evolving business environment. Based on this rethinking, an effective mobility strategy provides enterprises with an ongoing sustainable competitive business advantage.

The Path to Enterprise Mobility

Getting Started

The preceding sections of this white paper described some of the ways that the IT environment has changed in the last few years. Another significant change that has occurred in the current business environment is that IT organizations tend to avoid projects that take a long period of time and which consume significant resources prior to showing any value. That doesn't mean that IT organizations that are embracing enterprise mobility shouldn't have a long-term vision of enterprise mobility. They should. However, the path that IT organizations take to implementing enterprise mobility should ideally consist of incremental steps, where each step provides value, requires limited resources and incurs limited risk. As shown in Figure 1 and described below, the suggested approach to implementing enterprise mobility is comprised of three key steps.

Figure 1: Three Steps on the Path to Enterprise Mobility

When launching any major IT initiative, most IT organizations take a "low hanging fruit" approach whereby the first step in the initiative must provide short-term, measurable value at little cost. Applying the "low hanging fruit" approach to mobility, the first step on the path to enterprise mobility is for IT organizations to seamlessly provide connectivity to existing Intranet applications, SharePoint sites, file shares and other critical business data from the range of tablets and smartphones that the company's employees utilize. This first step will be referred to in this white paper as The Mobilization Step.

The Mobilization Step

In order to provide short-term, measurable value at little cost, The Mobilization Step (Figure 2) must not require that IT organizations write any code, reconfigure their Intranet or application servers, or otherwise change their existing application infrastructure. In order to reach the

broadest set of employees and deliver the greatest value each step on the path to enterprise mobility, including The Mobilization Step, must support both online and offline access to applications and data to ensure that employees can work when a mobile data connection isn't available and must also support a wide range of popular user devices, including iOS and Android devices.

Figure 2: The Mobilization Step

In part because of the growing sophistication of hackers, but also because of the increasing value of intellectual property and corporate data, security is a major concern for any IT initiative. The concern about security plus the universal requirement for ease of use means that as part of The Mobilization Step, it must be easy to implement single sign-on on the supported mobile devices and that existing access and authentication processes extend to the mobile device in a symmetric and totally consistent manner. Another key characteristic of a secure mobile solution is that all communications must be encrypted and protected on an end-to-end basis. This applies to both data in motion and data at rest that is cached securely on the mobile device where offline access is enabled.

An Ongoing Program

After implementing the Mobilization step, the path to enterprise mobility becomes an ongoing activity comprising two further steps: The Analyze Step and The Create Step. The primary reason that these steps are ongoing is that businesses are continually changing due to factors such as new opportunities and threats, mergers and acquisitions as well as enhanced regulations. Effectively implementing and managing an enterprise mobility strategy positions IT organizations to continually add business value by enabling the businesses that they support to quickly respond to ongoing changes.

The Analyze Step

The goal of The Analyze Step (Figure 3) is to understand how employees are using their mobile devices as part of their work activities. This includes identifying and understanding which applications and what data mobile employees access, when and where these applications and data are accessed, and how employees are using this information for work activities. An IT organization can add business value just by sharing this detailed understanding with their

company's business managers and by so doing provide the business managers with insight into the operation of their business units. Having this understanding also enables an IT organization to work with their company's business unit managers to create an intelligent, data driven strategic plan for both the short term and longer term adoption of mobility in a way that adds measurable business value.

Figure 3: The Analyze Step

The Create Step

A key goal of The Create Step (Figure 4) is to optimize existing applications for mobile use by making use of mobile characteristics such as location awareness and/or integration with the camera on the user's mobile device. A secondary goal of The Create Step is to build new mobile-only applications that allow mobile employees to share and consume information in ways that enable these employees to be productive doing both traditional work tasks as well as the new generation of work tasks that emerge from mobilizing business processes. These mobile-only applications should be built using familiar tools and technologies such as HTML5, JavaScript and CSS3 and leverage existing code and the existing enterprise IT infrastructure.

Figure 4: The Create Step

Building the Business Case

As part of both The Analyze Step and The Create Step, IT organizations need to build a business case to justify making an investment in mobility. In many cases, IT organizations make a business case for investing in mobility based just on simple metrics such as the previously mentioned cost

savings associated with a BYOD program, or the number of additional hours of work employees typically put in if the employees can work while they are mobile. Focusing just on simple metrics such as these ends up guaranteeing that the company's mobility strategy will be tactical in scope and will provide little sustainable business benefit.

In order for IT organizations to unlock the huge potential business value that mobility provides, they need to focus on how mobility can impact top-line business metrics. While these kinds of metrics can sometimes be difficult to quantify on an industry-wide basis, the business unit managers who ultimately fund and support a mobility initiative have a solid understanding of them. Similar to the Mobilization Step above, IT organizations should focus their efforts on a business unit manager who can benefit significantly from mobilizing one or more of their key processes and who is interested in working with the IT organization to build the business case to accomplish that goal. After making that business unit manager successful, the IT organization can then leverage that success to add more value to that business unit and/or to work with other business unit managers to add similar value.

The business unit within a company that often can benefit the most from mobilization is the company's sales force. An effective first approach for IT organizations that are developing a mobility strategy is to work with their company's VP of sales to mobilize the pricing and quoting lifecycle so that the company's sales force is empowered with real time pricing data while they are in front of the customer; they understand what room they have to negotiate; and if appropriate they can generate a quote and give it to the customer immediately. In this case, the appropriate metrics to use when creating the business case include how much additional revenue the company's sales team can generate if they can negotiate and close deals in person by leveraging the pricing information that IT has made available on their mobile device. A related metric that can be used in the business case is the reduction in the amount of time it takes to close a deal due to the ability of the sales force to negotiate and close deals in person.

In addition to mobile sales force automation that applies to most organizations; there are opportunities within most industry verticals to add significant business value by mobilizing key business processes. An example of this is companies that have field assets that they need to monitor, such as pipelines in the oil and gas industry or substations and other components of the electrical grid. For these companies providing real-time, location aware information and collecting feedback from their mobile employees in real time provides a level of efficiency and insight that is a true differentiator for their businesses. In this instance the business metrics that the IT organization can use to build the business case include how many outages or other expensive repairs can be avoided with real time information about pipelines, substations, or other field assets.

Summary and Call to Action

There is no doubt that IT organizations need to continually demonstrate the business value that they provide. There is also no doubt that one of the primary ways that IT organizations can achieve that goal is by creating a path to enterprise mobility that is based on rethinking how employees will share and consume information in the continually evolving business environment.

The path to enterprise mobility that IT organizations create must avoid the belief that everything has to be re-created from scratch or that existing investments in infrastructure, custom applications and development skills cannot be leveraged in a mobile environment. IT organizations must also avoid the belief that they in order to create a path to enterprise mobility they must answer every question, anticipate every possible challenge, and deploy expensive new technologies. Neither of these beliefs is accurate.

As part of their path to enterprise mobility, IT organizations should leverage a "low hanging fruit" approach whereby the first step in the path, The Mobilization Step, calls for the IT organization to seamlessly provide connectivity to Intranet applications, SharePoint sites, file shares and other critical business data from the range of tablets and smartphones that the company's employees utilize. After implementing The Mobilization Step, the path to enterprise mobility becomes an ongoing activity comprised of two further steps: The Analyze Step and The Create Step. The Analyze Step helps IT organizations to understand how employees are using their mobile devices as part of their work activities. The Create Step enables IT to optimize existing enterprise applications for mobile use and to build new mobile-only applications that allow mobile employees to share and consume information in ways that dramatically improve their productivity.

A common mistake that many IT organizations make is to build a business case to justify making an investment in mobility based just on simple metrics such as cost savings on user devices or extra hours worked by employees alone. Building a business case just on metrics such as these guarantees that the mobility strategy will be narrowly focused and provide little business benefit. In order for IT organizations to unlock the huge potential business value that mobility provides, they need to focus on how mobility can impact top-line business metrics. For example, if an IT organization is building a business case to mobilize the company's sales force, then the appropriate metrics should include how much additional revenue the company's sales team can generate once they can negotiate and close deals real-time in person by leveraging the pricing information and negotiating tools that IT has made available to them on their mobile device.

Conclusion

The three steps that lead to Practical Enterprise Mobility are simple yet powerful template that enterprises can follow to deliver sustainable competitive advantage to their businesses.

For further information please visit www.ashtonmetzler.com.

About Mobile Helix

Mobile Helix Link offers enterprises an easy, cost-effective and secure way to go mobile without compromising on security or on performance. Seamless access to the corporate intranet, as well as rich mobile HTML5 "out-of-the box" applications for corporate email access, file browsing and file editing, all safely inside the secure Link Container on the mobile device. Link provides all of these benefits without the need for new code, changes to the existing web application delivery infrastructure, or changes to the existing enterprise security model. As a next step, the Link HTML5 SDK enables IT to upgrade existing custom applications to be mobile-optimized, and to create new mobile applications using an intuitive, familiar and standards-based methodology. To learn more about Mobile Helix Link please visit us at www.mobilehelix.com.