Managed Services Help IT Deliver Best In Class Enterprise Mobility

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Mobility Requires an Application and Infrastructure Transformation

Businesses face a dynamic landscape where both customer and employee demands are changing. Mobile technologies are changing what we connect, how we connect and how we transact. Mobility represents one of the most fundamental technology changes in the past two decades, and it also provides the opportunity to change how we engage with our employees, customers and partners. Mobility, while providing great opportunity, also provides security and management risks as well as business-process challenges. To mobile-enable the business, IT must:

- **Enable multi-network and multi-device access.** We've moved from a world of one device per person to multiple devices per person and numerous wireless connections as employees bring in smartphones and tablets. IT must also support a diverse range of wireless connectivity options including WLAN, Bluetooth, 3G and 4G connections. An enterprise mobility network strategy must also accommodate connecting a wide array of new computing devices as well as wireless-enabled sensors in items such as machinery, medical equipment and HVAC systems. In fact, Ericsson estimates there will be 50 billion connected devices by 2020. Mobile and the Internet of Things (IOT) require a company to modify its network connectivity models as well as prepare for a massive increase in real-time data.

- **Support both corporate and personal devices.** As smartphone and tablet ownership and usage grows, consumers are bringing personal devices into the workplace. Businesses are also considering purchasing tablets for corporate use to support a growing need for data at your fingertips. In 2012, many CIOs embraced the Bring Your Own Device (BYOD) trend. Over 57% of firms surveyed in the Lopez Research Enterprise Mobility Benchmark stated that their firms allow employees to take part in the BYOD trend. Unfortunately, most of today's BYOD programs fail to reap the full benefits of the "business on the go" movement due to firms only allowing limited access to corporate data such as email, contacts and calendars. This will change over the next three to five years, as a majority of firms will look to mobile-enable business applications and processes such as Customer Relationship Management (CRM), Enterprise Resource Planning (ERP) and order management.

- **Rebuild business processes to work in a mobile world.** New mobile operating systems and devices will force companies to change how applications and business processes are designed. PC systems were designed with deep menu navigation while mobility-optimized systems are task oriented. Users typically want to access relevant information in one to two clicks on a mobile device, which means IT can't simply port an application to a device. Enterprise mobile applications must provide a

user experience that is on par with consumer apps. Future applications must be device-aware, location-aware and network aware.

- **Shift to portable business services.** Mobility will take on a new meaning because not only will devices be portable but so will the content and services. Instead of business services being locked to the device or to the business location, employees will be able to securely authenticate to corporate services on any device (e.g. a desk phone in a client's office or a screen at the hotel) and at any location (e.g. hotel, home, client's office).Virtualization has made this possible in numerous types of IT systems. While devices will be intelligent,the decoupling of software and services from the hardware and a physical location will be possible. Identity solutions -- the ability to validate employee identity and thwart unauthorized access -- will become critical. Identity solutions should provide single sign-on, federated identity management, mobile identity, API security and social identity integration.

Figure 1. Mobile Transforms Business

What we connect

How we connect

How we transact

Mobility Creates Both Technical Business Challenges For IT

Companies realize that mobility must become an integral part of business strategies. However, many companies still struggle with how to begin the process of mobile-enabling the business. Mobile-enabling the business creates both business and technical challenges. IT must navigate:

- **Increasing technical complexity.** Times were easy when IT issued a single type of device to a small number of employees with email-only access. Now employees want to bring in whatever device they currently own and expect to access much more than email. In the office, employees expect the same high-quality network service that they have at home. Instead employees are met with wireless LANs (WLANs) that weren't designed to handle an influx of diverse devices, non-existent or poor quality in-building cellular networks and Internet firewalls that cripple the usability of the devices.

- **Evolving mobile operating systems and app development challenges.** IT must decide which mobile operating systems to support and which versions of these operating systems to support as well. IT also must decide which apps and processes to mobilize, how to design apps to take advantage of multiple devices, and how to manage and secure access to corporate data. Additionally, many of the business processes weren't designed with mobile in mind and need to be redesigned to take advantage of new capabilities.

- **Escalating support and connectivity costs.** IT departments may currently be staffed to support a small number of mobile workers, but allowing everyone to connect to the network increases support calls and expense. Meanwhile, companies with a traveling workforce can incur thousands of dollars in roaming fees for a single user. Unpredictable roaming fees coupled with increased telecommunications reimbursements for employees that use their personal devices is crippling IT budgets.

- **Crushing wireless network demands.** Upgrading the network every five years won't provide the wireless network that IT needs to support rapidly changing user demands. As IT budgets have declined 10% in 2012, many IT leaders have decided to forgo the necessary infrastructure upgrades. Instead of deploying new WLAN and in-building cellular networks, IT has focused remaining budgetary dollars on innovating in areas such as mobilizing apps. This creates disgruntled employees that wonder why they have a better network experience at home than at the office.

- **Mounting security and compliance risk.** Security and cost have topped the list of mobile concerns for years, but numerous surveys reveal firms are worried about personal devices invading the enterprise. Ensuring compliance with security regulations has heightened both the CIO's and the CFO's awareness of mobility. As more employees bring their own devices into the workplace, businesses need to a way to secure corporate data while allowing device owners to use apps and services.

IT Needs A Mobile Aware Strategy

Mobile provides employees with the opportunity to connect from any location. However, this doesn't happen without dedicating IT budget resources. Selecting the appropriate processes and applications to mobile-enable is a critical element of any enterprise mobility strategy, but it is not the only element. A business must understand how processes should be changed to enable remote work. IT needs a comprehensive infrastructure and management plan that supports cellular and WLAN data networks. An IT strategy should also include several other key areas such as a corporate data security plan, a device and application management strategy, and a plan for mobile-enabling applications. Mobile-enabling applications should be also based on what workflows can benefit from the mobile access.

Managed Services Help IT Build A Mobile-Aware Network

A comprehensive mobile-aware network services strategy will be the foundation of every successful business. However, many businesses lack the IT and budgetary resources to properly mobile enable the business. Managed mobility services from a carrier or a managed services provider can provide the infrastructure, management and application development platforms for companies with limited IT expertise or limited capital resources. A managed mobility solution can help IT deliver a mobile-aware network that will:

- **Improve the end user experience with high-quality multi-network access.** Life was simpler for IT when employees just carried laptops. Today, IT must build networks that can support smartphones, tablets and laptops. Businesses are also considering connecting equipment within the enterprise. To gain business value from employees using multiple mobile devices, IT must provide broad coverage and capacity across the enterprise using a combination of wireless LAN and cellular technology. Managed services can increase network flexibility by providing both in-building and roaming cellular and WLAN network services. A managed service can also help a businesses procure, add software to, and distribute tablets to employees.

- **Support global connectivity at the right price.** IT needs to provide easy connectivity that leverages the right network at the right time. Successful strategies will combine global connectivity with multiple access methods such as 3G and Wi-Fi. A company should ask providers for mobile-worker packages that include3G, 4G, and Wi-Fi offload as well as products such as data pooling.

- **Deliver robust mobility management**. A company needs an enterprise mobility management (EMM) solution that provides management that is similar to what existed in the PC world but adapted to the

unique constraints of the mobile world. A business must be able to provide, manage, secure, and update application and device policies in a mobile world. EMM managed services can provide device management, application life cycle management, application wrapping, and data protection as well as up-to-date support of new technologies and software upgrades.

- **Enable scalability.** Managed services enables a business to start small and expand gradually. It enables enterprises to improve connectivity without making huge capital investments. Currently, IT executives spend upwards of 80 percent of their budgets maintaining commodity infrastructure. In most cases, this 80 percent doesn't provide advanced services. Managed services allows a company to shift more budget resources to projects that focus on innovation while enabling the business to add as many mobile workers as desired.

Six Questions Help IT Determine If Managed Service Are A Fit

There are numerous vendors and several deployment models including on-premise, cloud and hybrid deployments. With such a complex landscape, how do you decide which solution is right for your company? There are at least five questions that an IT leader should be able to answer as a business evaluates upgrading the network to support mobile-workers:

1. **Are you presently buying products and services from the Managed Service vendor?** Once a business has purchased a managed service, buying more services from its existing providers can create economies of scale for support, combined billing, and governance. Many services providers now offer managed mobile infrastructure, application and device management, application development platform services, and prepackaged mobile applications. If IT is satisfied with its present managed services, the company should research and evaluate additional offerings from that vendor.

2. **Do you have the resources to deploy and manage mobile solutions?** While a new mobile infrastructure and mobile management solution are critical to the operational health and security of the business, many firms don't have the IT resources required to evaluate, install, and manage WLANs and cellular infrastructures as well as EMM. IT should assess its available resources and decide if those resources would be better spent on other projects such as managing a transition to a virtualized environment or building new mobile applications. One way to maximize IT resources is to consider managed infrastructure services and a cloud-based EMM service.

3. **Do you need to shift expenses from CAPEX to OPEX?** On-premise EMM solutions require a company to purchase servers and hardware, software licenses, and maintenance contracts. In

contrast, managed services shrink upfront costs while allowing IT to provide broad and robust network connectivity and management for a monthly fee. It also has the hidden benefit of allowing businesses to pilot a solution with a subset of users before committing to a full implementation. Managed solutions also enable a firm to seamlessly scale from dozens to thousands of users without adding additional IT staff.

4. **Could you shift talent or hire new talent based on shifting CAPEX to OPEX?** One mistake businesses make when reviewing managed services is to focus on cost versus creating business agility. While managed services may or may not provide significant cost savings, managed services enable IT to focus its resources on creating a competitive business advantage instead of buying and maintaining commodity infrastructure. In some cases, businesses that adopt managed solutions can shift existing talent to another project or hire new talent to focus on new solutions. Network services that can scale by device or user such as wireless, EMM, unified communications, and mobile services are ideal to consider for managed services. Adopting managed services doesn't equate to abdicating control. IT must retain architectural and governance oversight in order to enable a managed solution to be successful.

5. **How will the business handle application distribution and management?** Several years ago, mobile management solutions largely supported device management. However, EMM solutions, whether on-premise or cloud-based, must evolve to support centralized management for mass deployment of applications and Over-the-Air (OTA) updates. An EMM should provide application life-cycle management that starts with creating a corporate application store which allows IT to display and control what corporate applications are available for downloading to devices.

6. **What type of data plans do I need to support new usage?** IT must gain visibility, management, and control of network devices and expenses. Employees can't have a different data plan for each device. The cost and complexity of managing multiple devices and service plans for each employee is not efficient and will overrun IT. Businesses should ask telecommunications carriers to provide plans that support multiple devices per user along with mobile data-pooling plans.

Evaluating Managed Service Providers

When evaluating prospective providers, IT should evaluate the various aspects of the services such as monitoring, reporting, backup, remote management, and security. Other key provider qualifications include location, third-party certifications, customer references, in-house staffing resources and contract terms. After adopting the managed service, the business should experience service delivery

improvements and be able to effectively monitor costs. There are at least ten questions that an IT leader should ask to winnow the list of prospective suppliers (see Figure 2).

Figure 2. Questions To Ask Prospective Telecommunications and Managed Service Providers
1. What type of equipment and services can the provider manage?
2. What tools are available to monitor and manage your solutions?
3. How scalable is the solution? (e.g. what is the largest deployment the vendor has?)
4. Has the vendor done complex integration, security, and authentication work?
5. Do they have customers like you?
6. What kind of support does the provider offer?
7. Who are the providers partners?
8. What is the services road map? (e.g. what are the plans for upgrades and new features?)
9. What certifications does the provider maintain?
10. Does the provider have a technical vision for the future?

Conclusion

There isn't a "one size fits all" strategy for mobile-enabling the enterprise but certain items are required for all organizations. Businesses need to offer consistent, high-performing wireless network services, support for personal and corporate-owned devices, and a method to manage and secure corporate data and applications. Managed mobility services can provide scalable, high-performing services that allow businesses to focus on building competitive advantage. The final choice for a managed services provider should be viewed as a collaborative extension of your IT organization. CIOs that mobilize business processes will deliver sustainable business value.

About Lopez Research

Lopez Research, founded in 2008, is a market research and strategy consulting firm that specializes in how mobile technologies, big data and cloud computing will create contextual "Right Time Experiences". The company's mission is to understand the evolution of these trends, provide thought leadership, and assist both enterprise and technology vendor clients in building winning market strategies. The companies' perceptions in the enterprise market are gained through direct industry involvement and client interaction. Lopez Research combines survey-based research and predictive analysis to gain insight into coming trends. With a background in emerging business and technology trends, voice and data networking technologies, and vendor and service provider selection, Lopez Research provides clients and readers with the bridge between business leadership and technology adoption.

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