VDC Research
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VDC White Paper

Enterprise Mobility Management

Addressing the Hidden Costs of Mobile Endpoints

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SOTI

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VDC Research

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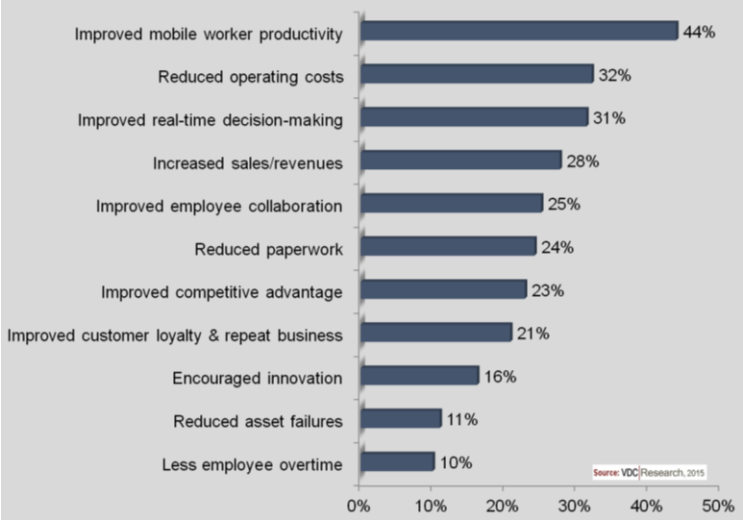
Introduction

In today's increasingly service-driven economy, an organization's greatest asset – and cost – is in its workforce and their time. Optimizing this time is at the heart of an organization's operational strategy. With an ever-growing share of the workforce mobile – VDC estimates that mobile workers, at more than one billion large in 2015, is the fastest-growing segment of the workforce – mobile solutions that connect these workers to one another and with the customers they are supporting can substantially increase productivity and reduce costs while accelerating responsiveness and speed to market.

Exhibit 1: Most Important Enterprise Mobility Investment Drivers



The value of these mobile solutions is in their gift of time – both from a workforce productivity and multiplier perspective and also in their ability to provide workers the time to drive more engaging customer interactions. Far more than simply an emerging consumer channel, mobile capabilities are disrupting traditional business models, providing businesses with new sources of data and insight, and driving top- and bottom-line results.

Addressing these needs, enterprise mobility management (EMM) solutions have evolved to provide the necessary infrastructure to manage mobile devices and mobile applications within the enterprise. EMM solutions today represent the most mature segment of the mobile software ecosystem and are an increasingly critical requirement for any mobility deployment. Key EMM solution features include the following:

- ***High-volume registration***: The ability to configure and register a high volume of users and devices at the same time through an easy-to-use and -configure interface is important, especially when looking at the rapid scale at which organizations are registering mobile and other networked devices.
- ***Application management***: The average number of applications per user is scaling just as rapidly as the number of devices. Moreover, the apps are growing in complexity and size. Provisioning and managing these is taxing network traffic and has the potential to stall the management platform.
- ***OS management and support***: The fluid nature of the mobile OS landscape requires a management platform that provides rapid support for all device types, including other end points beyond mobile devices such as wireless peripherals. The nature of an increasing '*employee-enabled*' OS change represents an additional wrinkle and support requirement.

- ***Infrastructure support***: Direct and real-time integration with LDAP – that saves ongoing administrative time and cost – is critical. In addition, dedicated, VPN-like mobile application tunnels that secure app traffic end-to-end are essential.
- ***Secure content management***: Secure content distribution and mobile data leakage prevention (DLP) are increasing requirements, especially considering the increasing volume of more sensitive information and files being accessed and processed on mobile devices.

While these solutions have been predominantly adopted by larger organizations with larger mobile populations, EMM capabilities have evolved to the point where the economics translate for mobile deployments of virtually any size. However, according to recent research conducted by VDC among 1,070 decision-makers, only 37 percent of organizations used third-party EMM solutions in 2014 to manage their mobile devices, with many not using any solution or opting to rely on the lower level functionality of EAS (Exchange Active Sync). Nevertheless, seven in 10 organizations not currently using EMM solutions have plans to invest in these capabilities.

Enterprise Mobility: The Basics

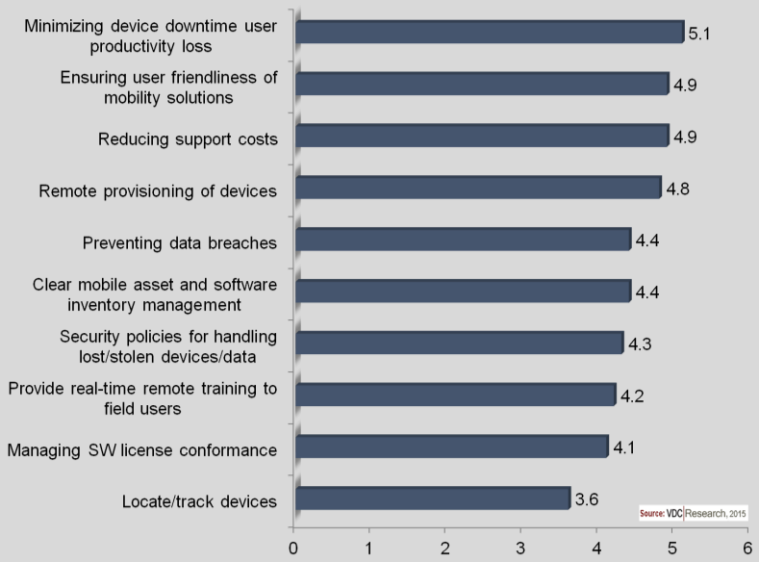
Whether supporting BYOD policies or enterprise-issued mobile devices, the value of enterprise mobile management platforms and mobile device management is far-reaching. Core mobile device management solutions have evolved into broader enterprise mobility management platforms that encompass mobile device and application management including higher levels of security services. Requirements are rapidly evolving as enterprises shift their mobility strategies from enabling mobile email and calendar functions to becoming more actively engaged in deploying and managing mobile applications as well as providing secure access to existing corporate data stores to their mobile workforce. Leading solution providers are increasingly focused on developing secure file (content) management and collaboration, application management, and enhanced security functionality that is often referred to as containerization.

Exhibit 2: Enterprise Mobility Support Requirements

EMM/MDM Services	Description	Key Capabilities
On-Boarding & Configuration	Configure devices and set policies	▪ Standardized processes and delivery methodology ▪ Demonstrated execution
Support & Helpdesk	Provide helpdesk support, proactive troubleshooting	▪ 24/7 capabilities ▪ Self-service options
Depot Services/Provision	Provision devices, apps, and policies	▪ Customer dashboards and portals ▪ Opportunities to self-service enroll
Mobile Security	Secure devices, apps, network, and data	▪ Securing data at rest and in transit ▪ API integration to better manage devices ▪ Ease of use/unobtrusive design ▪ Tracking and geo-fencing services ▪ Compliance and governance ▪ Strict control of corporate data ▪ Consistent network security across all VPN implementations
Telecom Expense Management (TEM)	Monitor, manage and reduce telecom expenses	▪ Remote feature management ▪ Sync restrictions ▪ Management of roaming policies ▪ User self service
Mobile Application Management	Address full lifecycle services for mobile applications	▪ Turnkey application lifecycle services ▪ Application acquisition, distribution and provisioning, securing and tracking capabilities
Content Management	Platform to extend corporate content securely for mobile employees, contract workers, and partners	▪ File synchronization and sharing services ▪ Reducing physical content creation costs ▪ Providing centralized locker for corporate content
Monitor & Analytics	Monitor and report on device, service, and compliance Source: VDC|Research, 2015	▪ Customer dashboards and portals ▪ Solution usage trends ▪ KPI measurement and tracking
Lifecycle Support Services	Decommission devices upon departure or EOL	▪ Turnkey lifecycle management services

Many of the most pressing mobility issues and concerns identified by enterprise decision-makers – particularly around security, application management, and providing administrators with portals to better manage the growing number of mobile devices – are increasingly being addressed by today's enterprise mobile management platforms. While decision-makers will agree that early investments in mobile solutions had little to do with strategic initiatives and were primarily motivated by supporting 'employee needs or demands', enterprises are looking to better leverage these investments and ensure that their ROI goals are being met and that processes implemented to support and manage mobile solutions will scale with requirements. Thus, while ensuring the user friendliness of mobile solutions remains critical, other requirements – such as minimizing device downtime and reducing support costs – are becoming more critical.

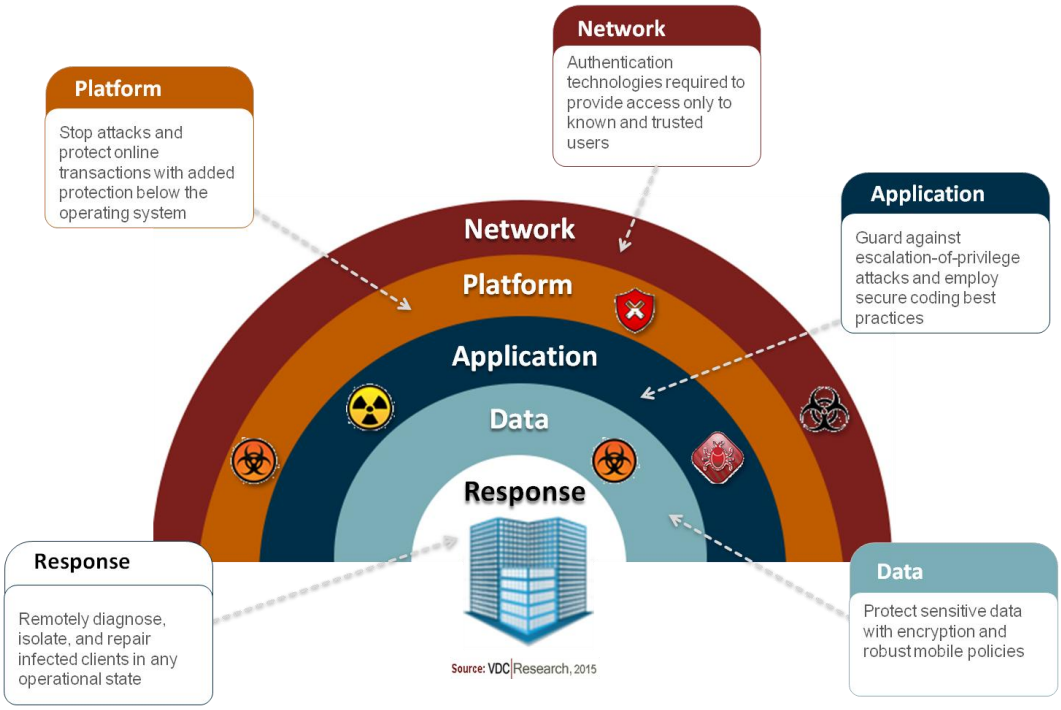
Exhibit 3: Mobility Issues of Greatest Concern to Enterprise Decision-Makers



Layered Approach to Security Required

While solution investment concerns remain a real barrier for decision-makers to overcome, the maturation of this segment has also contributed to lower adoption costs and greater flexibility in deployment options, including cloud-based services. Fundamentally, enterprise mobile management solutions have become a necessary investment for organizations that want to encourage a more productive and engaged workforce. Another critical concern for decision-makers is security; specifically, how corporate networks are being accessed and content is being managed and how data is being protected. With the expansion of mobility across the enterprise, enterprise data is dispersed among an increasing number of endpoints – from smartphones and tablets to wearable technologies and connected smart devices. Most enterprises are now looking at ways to control the flow of data while maintaining flexibility for users.

Exhibit 4: Layered Approach to Mobile Security Required



The influx of new mobile devices running popular mobile OSes creates significant difficulties for IT from a management, security, and support perspective, particularly once organizations expand their mobile application range beyond de facto horizontal mobile applications like email, messaging, and calendars. Mobile enablement has and will continue to have a profound impact in the enterprise, with the most visible area being the need to invest in solutions to manage and support mobile deployments.

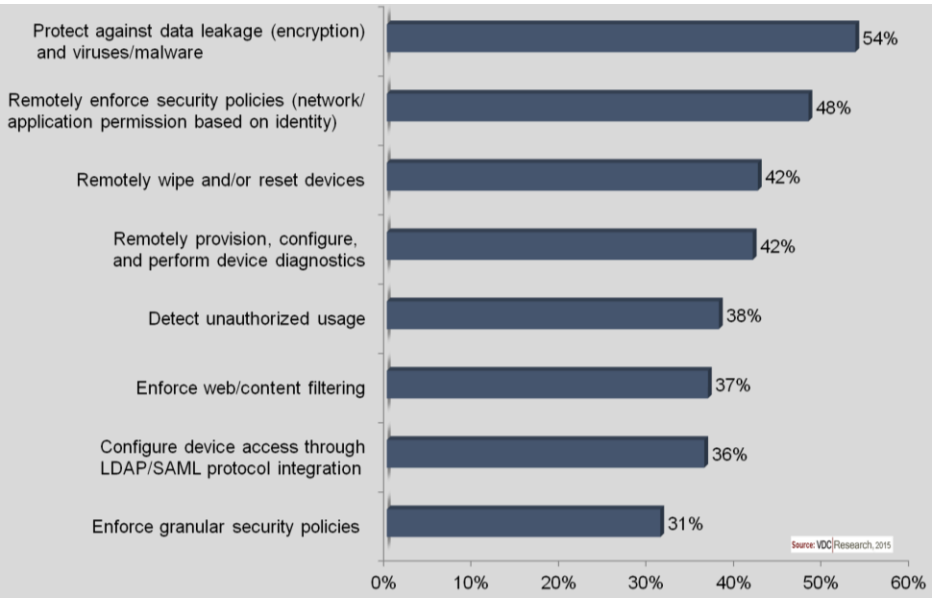
While the range of mobile security solutions is increasingly broad, the primary focal point for many organizations has been solutions aimed at protecting mobile devices from data leakage. There has been significant innovation in this area with solutions continuing to emerge that elegantly segregate personal and corporate data, utilizing a sandbox approach to ensure that corporate data and applications are protected (i.e. encrypted and isolated). Additional important security capabilities being addressed by leading EMM solutions include the following:

- The ability for IT to maintain and control security settings from a single location
- Implementing application *and* data controls (including automatic data encryption and secure transfers through a VPN)
- Additional security protections that include antivirus, web filtering (as well as secure browsing), and strong authentication
- Context-aware detection and prevention capabilities to provide secure access and authentication to a wider range of back-end services from multiple mobile apps/platforms

The Hidden Costs of Managing Mobile Endpoints

Enterprise mobility management solutions represent substantial investments for enterprises. Especially in today's IT budget constrained environment, the focus on cost containment is heightened as enterprises look to focus their investments on solutions with proven benefits and clear ROI.

Exhibit 5: Leading Mobile Security Requirements Among Enterprise Decision-Makers



While programs like BYOD, which are at the forefront of many organization's initial mobility initiatives, have been paraded around as cost reduction endeavors, their impact on IT support and investment requirements in additional solutions such as mobile security applications can quickly offset the cost savings of not having to acquire mobile devices. With no slowdown in the appetite for mobility in the enterprise and the potential for a continued increase in total cost of ownership of mobile solutions, it is critical for enterprise mobility decision-makers to assess their organization's mobility needs and to put a scalable framework in place to best manage these costs.

In addition to delivering robust mobile security capabilities, a key benefit of EMM solutions is to lower the total cost of ownership of mobile solutions within the enterprise. In addition – and just as important – these solutions help streamline and expedite problem remediation when mobile devices fail or are not functioning appropriately.

For many enterprise mobility solutions today, especially those supporting frontline mobile workflows, the premium for reliability and minimizing downtime cannot be understated. Cost is not only measured in terms of how much time is required to re-provision a device and return it to the end user, but also in the impact of lost productivity experienced by the worker as a result of application or device downtime. Optimizing these processes has a significant impact on reducing the total cost of ownership of mobile solutions.

Exhibit 6: Mobile Support Impact

	Impact on Mobile Support WITHOUT MDM/EMM	Impact on Mobile Support WITH MDM/EMM
Average number of mobile applications	12.4	
Time required to provision application	12.5 minutes	<60 seconds
Device refresh cycle (enterprise issued)	3.4 years	
Percent of mobile devices requiring reconfiguration (due to failure or loss)	12%	
TOTAL DEVICE CONFIGURATION COSTS	$124.93	Negligible
Average mobile application updates/year	9.2	
Time required to update application	6.2 minutes	<60 seconds
Average mobile support requests/year	9.6	
Average length of mobile support call	7.5 minutes	2.9 minutes
Percent of requests resolved remotely	67.5%	88.4%
Percent of 'no trouble found' of mobile devices sent to service depot	38.8%	6.2%
Average time to diagnose 'no trouble found' devices	18.2 minutes	
Average time to decommission mobile device	25.0 minutes	<60 seconds
Fully burdened cost of IT support staff	$43.18	
AVERAGE ANNUAL EMM/MDM LICENESE	NA	$68.0
TOTAL ANNUAL SUPPORT COST	$141.90	$20.93
TOTAL ANNUAL COSTS (including EMM SW license, configuration costs and annualized decommissioning costs)	$183.90	$88.93

Source: VDC|Research, 2015

Mobile Logistics Services: Key to Optimizing Uptime of Business-Critical Mobile Assets

Reducing the complexity of mobile solutions and deployment timeframes are key factors influencing decision-makers to consider enterprise mobile management and mobile device management solutions. This specifically ties to requirements around mobile logistics services. Especially for mobile devices supporting line-of-business applications, the need for streamlined staging, kitting, testing, provisioning, device depot services, diagnostics, and other mobile logistics and repair services is acute. According to VDC's research, staging/kitting and device provisioning were cited as two of the top three services most influencing a successful mobile deployment. With annual failure rates of mobile devices supporting line-of-business applications hovering between 5% and 20%, the ability to rapidly provision a device and return it to the hands of the employee has a direct impact on total cost of ownership and ultimately mobile ROI.

Helpdesk and IT Support: Managing Against the Influx of Mobile Support Requests

A consequence of the expanding use of mobile solutions across organizations is helpdesk call volumes related to mobile devices. According to VDC's research, the average number of support requests per mobile user per year is just under 10 and is increasing. The share of mobile requests within IT today exceeds 20% and is expected to top 25% over the next year. Ensuring quick call resolution is critical to efficiently manage these processes to limit worker productivity loss. EMM-supported helpdesks streamline these support processes with a 60% drop in average call resolution times. In addition, the share of requests that are resolved remotely is 20% higher among organizations with EMM solutions, and the share of devices sent to service depots with "no trouble found" lower by more than 10%. This is especially critical for line-of-business mobile solutions that are tightly interwoven with existing workflows.

Application Management: Ensuring Complete Lifecycle Services

The number of mobile applications deployed continues to increase, placing even greater pressure on enterprises to efficiently manage these applications. While many of these applications may be lightweight browser-based apps, most of the sophisticated enterprise mobile applications in use today continue to be developed natively for a particular operating system or, in some cases, form factor. IT departments can incur significant costs supporting the process of provisioning and updating mobile applications. With the integration of application management capabilities and enterprise app stores, the ability to streamline this application lifecycle management can result in significant time and cost savings for enterprises. On average, enterprises support 12-14 mobile applications per user and an average of 9 updates per application per year. Managing this process 'manually' can take upwards of 12.5 minutes to load an application and 6.2 minutes to update, resulting in a per-device cost in excess of $150.

Decommissioning Mobile Devices: Efficiently and Securely Putting Devices to Rest

Employees with smartphones and tablets used in a BYOD scenario often leave confidential data on them when they replace them with new devices. A common black hole in BYOD policies in place today is in managing this process such that confidential information is not leaked. Ensuring that sensitive corporate information is either wiped completely or transferred to the employee's new device is a key feature of today's EMM solutions. The same need to centrally manage the removal and transfer of all corporate data holds true for corporate-issued devices that may be sold on the secondary market. Similar with other mobile processes, supporting mobile device decommissioning with an EMM platform can significantly streamline the process, reducing the IT resources required.

Conclusions and Recommendations

The cost reduction benefits of today's EMM solutions cannot be understated. As the number of devices *under management* continues to grow exponentially, EMM solutions represent critical SW platforms to support the secure management of mobile devices and associated applications. VDC's research on mobile device cost of ownership/support reveals that the cost of managing a mobile device without the support of an EMM solution can reach $184 per device per year. With the support of an EMM solution, the average annual cost drops by a full 52% to $88 per device per year (inclusive of the EMM license cost).

About the Research

VDC Research was commissioned by SOTI to conduct research among enterprise mobile IT decision-makers to analyze their enterprise mobility initiatives. Specifically, the scope of the research was designed to measure the benefits associated with investments in enterprise mobile management (EMM) and mobile device management (MDM) solutions. To support the research, VDC Research fielded a survey that was completed by 162 qualified respondents in January/February 2015. The respondents consisted of individuals with direct experience and responsibilities for enterprise mobile solution design and application development either for their organization or their organization's clients.

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About the Author

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David Krebs has more than 10 years of experience covering the markets for enterprise and government mobility solutions, wireless data communication technologies, and automatic data-capture research and consulting. David focuses on identifying the key drivers and enablers in the adoption of mobile and wireless solutions among mobile workers in the extended enterprise. David's consulting and strategic advisory experience is far-reaching and includes technology and market opportunity assessments, technology penetration and adoption enablers, partner profiling and development, new product development, and M&A due diligence support. David has extensive primary market research management and execution experience to support market sizing and forecasting, total cost of ownership (TCO), comparative product performance evaluation, competitive benchmarking, and end user requirements analysis. David is a graduate of Boston University (BSBA).

About VDC Research

Founded in 1971, VDC Research provides in-depth insights to technology vendors, end users, and investors across the globe. As a market research and consulting firm, VDC's coverage of AutoID, enterprise mobility, industrial automation, and IoT and embedded technologies is among the most advanced in the industry, helping our clients make critical decisions with confidence. Offering syndicated reports and custom consultation, our methodologies consistently provide accurate forecasts and unmatched thought leadership for deeply technical markets. Located in Natick, Massachusetts, VDC prides itself on its close personal relationships with clients, delivering an attention to detail and a unique perspective that is second to none.

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