BOOSTING BUSINESS CRITICAL MOBILITY ROI THROUGH EFFECTIVE BATTERY MANAGEMENT

By David Krebs, Executive Vice President

INTRODUCTION

Mobility is transforming organizations' operations and represents a crucial channel for interfacing and interacting with customers and employees. Access to increasingly powerful mobile devices, intuitive and immersive applications and robust networks has significantly changed the way we work. With more than 50% of the workforce mobile – representing 1.7 billion workers – mobile solutions are no longer a luxury but rather a necessity for many of these mobile workers to perform their jobs. It is this interconnection between mobile solution and workflow that we refer to as business critical mobility. Be it field service technicians, delivery drivers, nurses or first responders, many of these workers depend on reliable access to provide real time access to critical information at the point of interaction.

However, mobility has also represented a game of compromises, especially with respect to both the performance of the network, the application and the mobile device. Considering the criticality of the workflows supported by many of these enterprise mobile solutions, the impact of failure can be significantly disruptive. One common point of failure is the battery and its ability to support a full shift between charges. In fact, batteries supporting business critical applications fail to last an entire shift thirty percent of the time and each time the battery fails, workers lose 50 minutes of productivity. For an enterprise supporting 500 mobile workers, this can translate into $1 million of lost productivity per year.

The nature of mobile and wireless technologies and the environments in which they are used to support business critical applications dictates that failures will occur. The challenge is how prepared organizations are to respond to the outages to minimize the disruption. In that respect a recent survey conducted by VDC Research among business critical mobile solution decision makers revealed some striking results. In fact, according to the research, only one in five organizations claimed to have visibility into the performance of mobile solutions used by their mobile workforce. Given the critical nature of mobile solutions for many organizations today, providing support staff with reliable solutions and the tools to expeditiously address problems substantially reduces the disruption caused by poorly performing solutions.

Key research findings include:

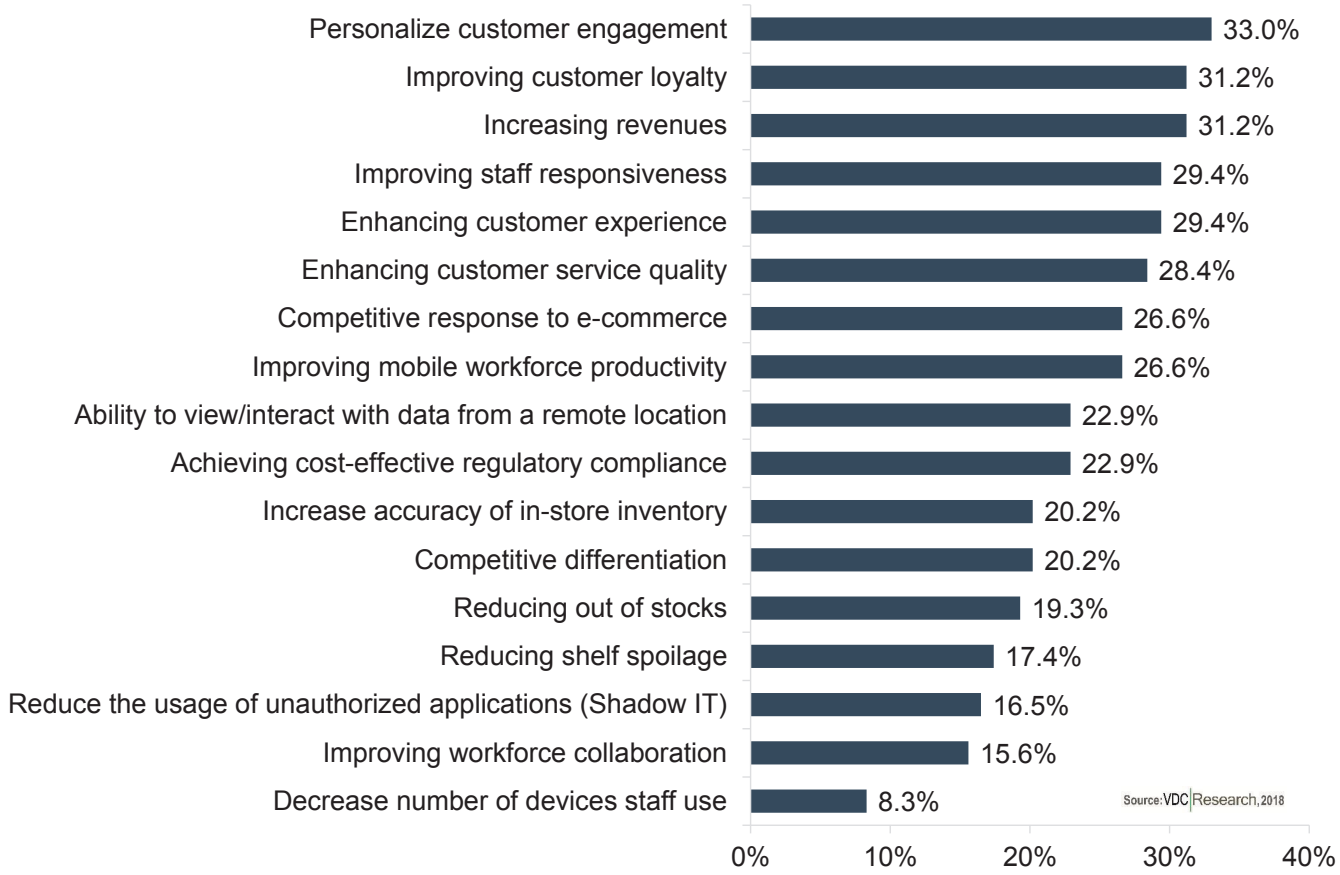
- 80% of mobile device TCO comes after the initial purchase and replacement batteries are a significant portion of this cost. When mobile solutions fail they can negatively affect workflows and employee satisfaction, contributing to a drop in productivity. The three leading causes of mobile failure leading to workflow disruption are network/connectivity, application performance and battery life.
- The majority of respondents (78.6%) to the survey claim that the battery powering their mobile devices fail to support an entire shift either occasionally (less than 50% of the time) or frequently (50% of the time or more).
- As battery performance tends to be a good indicator for other problems – such as poorly performing applications or network issues – it is not surprising that 89% of survey respondents would consider a battery subscription plan that provides for the testing, removal, replacement and recycling of bad batteries versus currently having no battery plan.

Retailers Turn To Mobile Solutions To More Effectively Engage Customers

With the continued rapid convergence of traditional commerce with e-commerce, the adoption of digital and mobile technologies to improve retail services and optimize the customer experience is directly translating into improved loyalty, increased share of wallet and greater profitability. Today's customer desires convenience and expects a seamless experience across all channels. This is forcing retailers to re-think and re-calibrate their operations across many dimensions, melding the digital with the physical domains. Improvements to digital technologies will enable retailers to more effectively respond to this new normal, driving decision making in unprecedented ways.

In-store, warehouse, and supply chain digitization which is based on mobile devices that run on batteries is moving beyond the experimentation phase as retail executives and IT teams prove the value of mobile-powered decentralization that puts more power in the hands of mobile workers of the digital store. Successful retailers are combining mobile point of sales (mPOS) and clienteling to create a rich in-store experience that touches multiple parts of the customer life cycle to create a more compelling and differentiating customer experience. Moreover, digitizing the entire supply chain will unlock new opportunities such as making stock availability more transparent to customers and enabling more flexible multi-channel integration and fulfillment. However, these investments are placing increasing strain on already resource-limited retail IT and operations departments.

Exhibit 1: Leading Priorities Driving Organization's Investments in Mobile (Retail) Solutions



From mobile point of sale (mPOS) to inventory management and from customer service to merchandising, the impact of mobile solutions to support and improve business and customer critical workflows in the retail sector is far-reaching. This sector has an inherently mobile workforce, which is estimated at 220 million workers and is expected to grow by 9% through 2021. Equipping these workers with mobile devices and access to critical enterprise content and applications is transforming retail organizations and driving new levels of performance, productivity, and customer service.

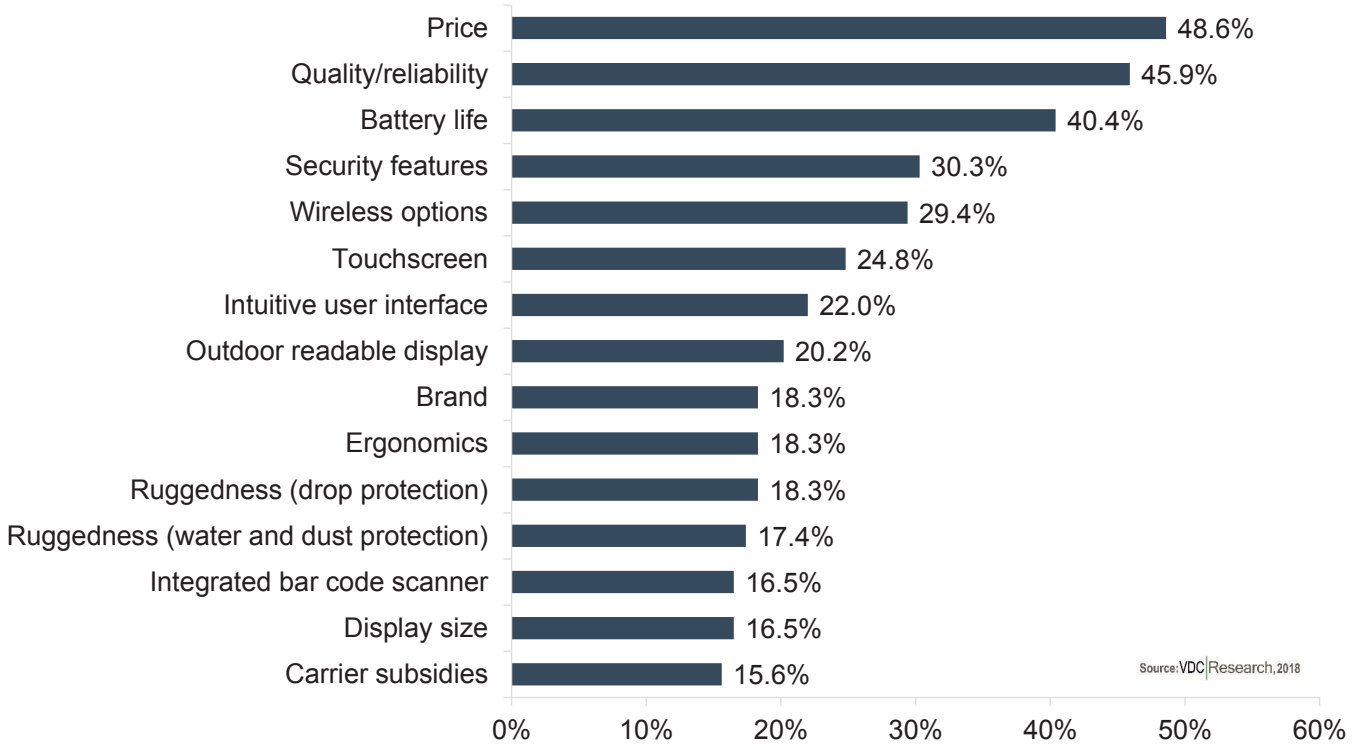
The role of mobile devices in retail operations is changing from supporting worker transactions to engaging customers. Retailers want their next-generation mobile devices to show customers videos, support promotions, browse the web, place online orders, and more. In addition, retailers are rolling out customer-focused mobile applications to provide better in-store experiences and better integrate brick-and-mortar and web presences.

Once seen as a tactical resource to be deployed to improve specific business processes, retailers now see mobility as a strategic tool to enable innovation and maintain competitiveness. Driving profitability and improving customer service and loyalty have trumped worker productivity as the leading investment drivers as retailers shift their investment focus. To support their strategic goals, retailers are planning to deploy many more mobile devices and other customer engagement platforms – such as kiosks – into their stores, increasing the ratio of mobile devices to store associates. In addition, investments to expand in-store wireless infrastructure, upgrade payment infrastructure and next generation beacon micro-location technology is driving demand for services that more effectively manage and support this increasingly sophisticated technology profile.

One of the many challenges technology decision makers face is selecting the appropriate mobile device to support their digital initiatives. End users want to combine the sleek look and feel and ease of use of consumer mobile devices with the lifecycle support and durable design of devices required to withstand the rigors of everyday enterprise use. Balancing the two is a challenge. When evaluating mobile devices for all mobile workers in sectors such as retail, leading selection criteria include the following:

- **Battery Life and Management.** A major requirement for business critical mobile solutions is a strong all-shift battery performance without significant design implications. The desired target is between 8-10 continuous hours of operation. According to VDC's research, 78.5% of enterprise users today indicate that their batteries 'frequently' or 'occasionally' do not last the full shift. This is up substantially in comparison to 2016 when 65% of end users reported the same characteristics.
- **Durability and reliability.** The risks of damaging mobile devices supporting business critical use cases is substantial, driving a premium for durability. Annual failure rates of consumer devices supporting business critical applications was recently measured by VDC Research at 19%, substantially higher than the 4.5% average annual failure rate of rugged mobile device.
- **Ease of use and support.** Leveraging consumer design styles to deliver greater ease of use and user experience is critical when considering next generation enterprise mobile devices. However, beyond ease of use, ease of support is of equal importance. Key support requirements include mobile device and application management, help desk services, depot and advanced maintenance and repair services.

Exhibit 2: Leading Mobile Device Selection Criteria

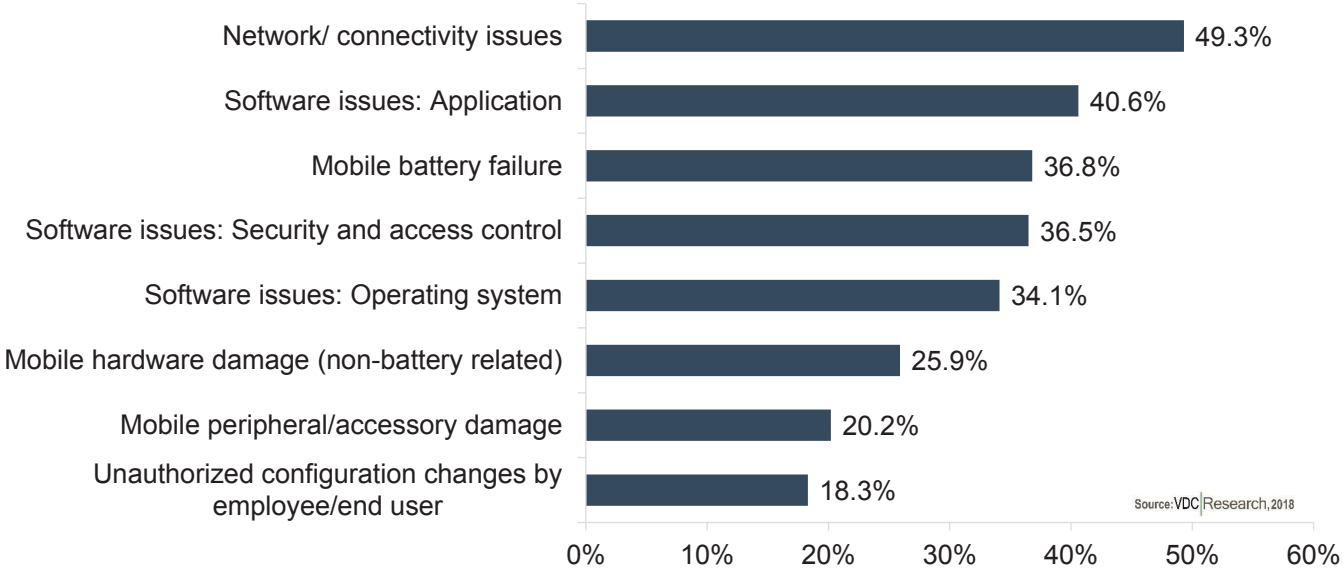


When Things Go Wrong: Minimizing Downtime and Workflow Disruption

Enterprise mobility solutions represent substantial investment for organizations. Especially in today's budget constrained environment, the focus on cost containment is heightened as organizations look to limit their investment exposure. However, not all mobile solutions are equal; failing to align the "right" mobile solutions with the target application or use case can expose organizations to significantly higher cost of ownership. For business critical solutions, this often boils down to stability, reliability and visibility.

According to VDC's research, network connectivity, application software and battery failure are the leading sources of mobile failure of their business critical solutions. More specifically, each battery failure incidence can lead to 50 minutes of lost productivity – as measured in time required to recharge the existing battery or locate a new/charged replacement battery. For an organization with 500 mobile workers, this translates to $1M in lost productivity per year. Key to minimizing the impact of failure of business critical mobile solutions is testing, removing, replacing, and recycling bad batteries.

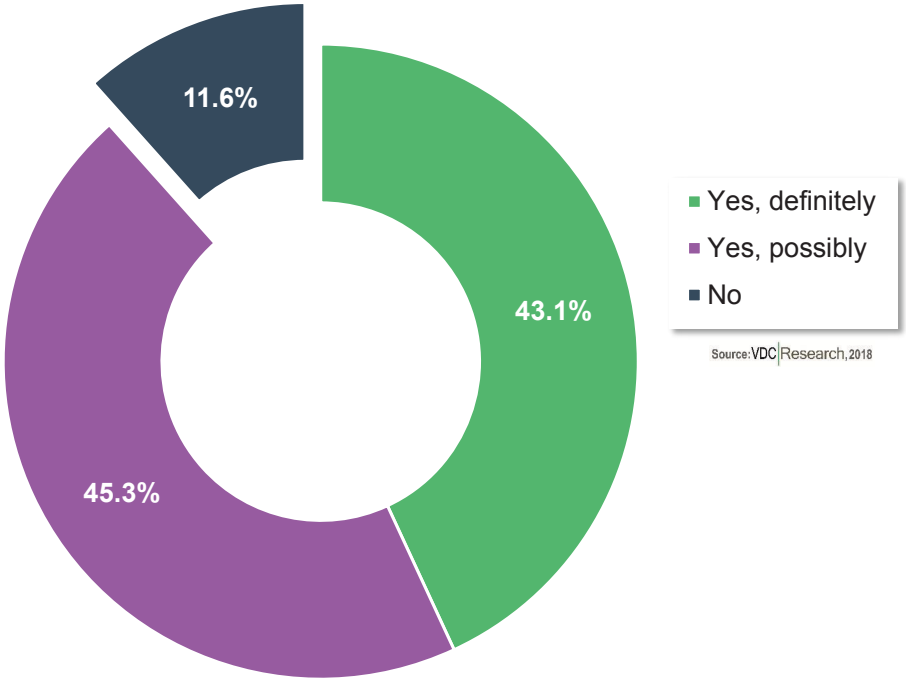
Exhibit 3: Leading Causes of Mobile Solution Failure



With batteries failing to support a full shift occasionally or frequently 75%+ of the time, organizations overcompensate for this issue with substantial spare pools of batteries. However, with only 54.4% of organizations today with real time visibility into the health and status of their mobile device batteries, the impact on operations of battery failure and spare pool mismanagement can be substantial.

Managed mobility services are increasingly attractive for the opportunity to reduce downtime while cutting maintenance and management costs. This extends to discipline of battery management with over eight in ten respondents to VDC's recent survey seeing value in battery management services. According to research respondents the perceived benefits extend beyond the productivity gains of more effective management of batteries and include environmental benefits of better battery recycling discipline and potential employees safety gains as poorly performing batteries are flagged and removed from inventory

Exhibit 4: Would you consider a managed service / battery subscription solution that freed you from having to track and replace battery inventories as they age and pass their recommended usage times?



As the mobile technologies that are used to empower employees and make them more productive continue to evolve, IT must decide whether it will buy and integrate solutions themselves or outsource. Outsourcing mobility management often aligns service requirements with corporate needs—the benefit from gaining access to best-in-class tools and expert agility required to maintain pace with the current market should not be underestimated. Considering the constrained budgets IT organizations are typically dealing with, the opportunity for cost savings derived from outsourcing mobile IT functions is attractive. As mobility become more strategic and deployments expand, managing device lifecycles – including batteries and other accessories – will only gain in importance.

Research Scope and Methodology

VDC fielded a survey among 200 enterprise mobility decision makers within retail service organizations. VDC Research fielded the survey in August 2018.. Respondents represented a mix of Department Stores (36%), Mass Merchants (20%), Specialty Stores (17%), Grocery Stores (12%) and Other retail segments (15%). The average number of stores operated by each respondent is 355 representing a total of 71,000 stores represented. The senior-most business and IT leaders completed the survey.

ABOUT THE AUTHOR

David Krebs

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).

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ABOUT VDC RESEARCH

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ABOUT GTS

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