

# Digital Transformation in the Age of the Hyper-Connected Consumer

Key Considerations for Retail Technology Decision Makers



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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 digitization is moving beyond the experimentation phase as retail executives and IT teams prove the value of the digital store. Successful retailers are combining 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 like making stock availability more transparent to customers and enabling more flexible multichannel integration and fulfillment.

However, these investments are placing increasing strain on already resource limited retail IT and operations departments. In this paper we will explore several digital transformation investment opportunities, the benefits realized by retailers and the technology investment and support best practices required to maximize ROI.

### **Brick and Mortar Retail is Dead, Long Live Brick and Mortar Retail: The Digital In-Store Experience and the Modern Retail Associate**

Traditional brick and mortar retailers have a massive trump card in their physical locations – one that can be a substantial competitive advantage if retailers can deliver the desired retail experience. However, with foot traffic in US retail stores dropping by over 9% annually over the past several years the challenge for retailers is in creating meaningful in-store retail experiences that translate to higher customer conversion rates, no matter the channel. In fact, depending on the product category, most consumers still prefer a direct or physical interaction with a product. Even for product categories – such as electronics, computers and applications – that are typically researched online, many customers prefer to purchase these items in physical retail stores. The challenge for retailers today – amidst slowing traffic – is to create a store environment that facilitates customer conversion. Retailers are experimenting today with strategies like format conversion and creating more engaging “shopping experiences”. However, what still fundamentally drives a shopper's behavior and retailer selection is predictably tied to price, product in-stock availability and services like return policies.

What is also clear is that these factors cannot be viewed in isolation and are often intricately connected. With the changes to the “role” of the retail store and changing customer expectations, there is a growing premium being placed on today's retail associates. According to shoppers one of the leading contributions to a more engaging in-store experience begins with interacting with sales associates with comprehensive product knowledge and the ability to access accurate inventory information in real time. Equipping retail associates with modern mobile solutions represents a critical investment for retailers driving innovation around in-store experiences. With innovative brands like Apple setting the bar on customer service and retail in-store customer engagement, the focus towards capabilities like personalized services, post-sale engagement and in-depth product knowledge is directly contributing to customer satisfaction and sales.

These trends are confirmed by research conducted by VDC Research among retail technology investment decision makers. When asked about the leading factors driving investment in mobile retail solutions, the highest rated criteria

emphasized investments that improved the customer experience and drove increased sales and loyalty. This represents a substantial shift over previous years when retailers' mobility investment was much more centered on retail operations and material management. Research has validated that consumers value interactions with empowered associates, especially those equipped with the tools to provide accurate inventory information and applications to more accurately identify customer preferences.

*Exhibit 1: What are the leading factors driving your organization's investments in mobile retail solutions?*



From a customer's perspective this also means creating a seamless retail experience across all available retail channels. Transitioning from and across digital – mobile, desktop, in-store digital display – and physical channels represents a growing requirement and differentiating opportunity for those that can accomplish it. Beyond bridging the physical and digital domains, visibility is ultimately what delivers the greatest value and most differentiates leaders from laggards. This means seamless access to accurate product information across any channel, the ability to track orders and the opportunity for a connected shopping experience.

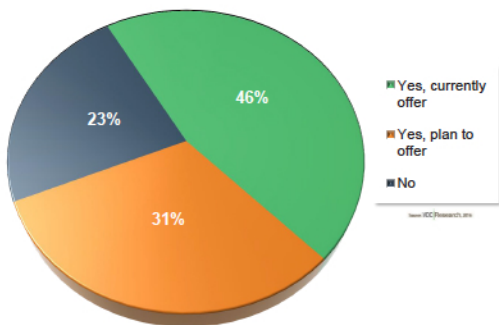
To remain relevant in the e-commerce era, retailers are using mobile computers and wireless connectivity to give customers the best of both worlds: marrying the convenience of online shopping with the experience of touching, feeling, and using or trying on merchandise in a store, with a knowledgeable salesperson on hand to help. Mobility investments are expected to increase store revenue, and retailers are confident they will achieve return on investment.

## Omni-Channel Overload: Leveraging Mobile Investments to Address Inventory Accuracy Issues and Flexible Fulfillment Requirements

Retail executives' strategies are clear: Revenue growth remains a core strategic pillar, with both digital and multichannel enablement seen as key elements driving that growth. More specifically, retail execs see multichannel as a key market growth opportunity. In the short term, retail decision makers see serving the digital agenda by keeping up with changing customer demand on new touchpoints as being a priority. Beyond that, retailers are particularly focused on integrating the various channels through which they interact with customers. To support these strategic plans, retail technology investment priorities outside of the store focus on logistics, multichannel integration, and the supply chain with modern mobile solutions a common requirement across all of these initiatives.

One of the recent initiatives by retailers to provide greater purchasing flexibility is through BOPIS (Buy Online/Pickup in Store) or Click and Collect applications. These innovative solutions bridge the digital and physical environments and address one of the key friction points in e-commerce - delivery. According to research conducted by VDC Research among mid-sized to large retailers, almost one in two is currently offering BOPIS services with another 31% planning to roll out these capabilities. One way to satisfy consumers is by offering in-store pickup fulfillment. A win-win strategy for all involved, in-store pickup helps shoppers get their products quickly and on their schedule, while eliminating shipping expenses and driving in-store sales for retailers. But this increasingly popular fulfillment method requires sophisticated coordination between retail commerce technology and store associates, making it challenging to implement and maintain. Consequently, the implementation of these solutions are mixed with some very successful while others fall well short of expectations.

*Exhibit 2: Does your organization currently offer or plan to support CLICK AND COLLECT/BUY ONLINE PICKUP IN STORE (BOPIS) services?*



Key issues such as underestimating the cost of BOPIS/click and collect (including the addition of service fees to certain transaction sizes), adequately addressing the customer experience, better management of returns processing are all areas retailers are looking to address. An additional key focal point for BOPIS modernization is around customer communication and better leveraging mobile channels to proactively communicate with customers especially when facing pickup delays. Successful BOPIS implementations are filling orders in less time than committed to whereas unsuccessful implementations are missing commitment windows substantially and also not effectively communicating with customers

about order status. A critical misstep by many retailers is failing to better manage customer communications through automated systems (such as texts or emails) altering shoppers about the arrival of their items or offering vouchers to incentivize prompt collection during off peak hours.

*Exhibit 3: What are the top 3 challenges to implementing CLICK AND COLLECT/BUY ONLINE PICKUP IN STORE (BOPIS) services?*

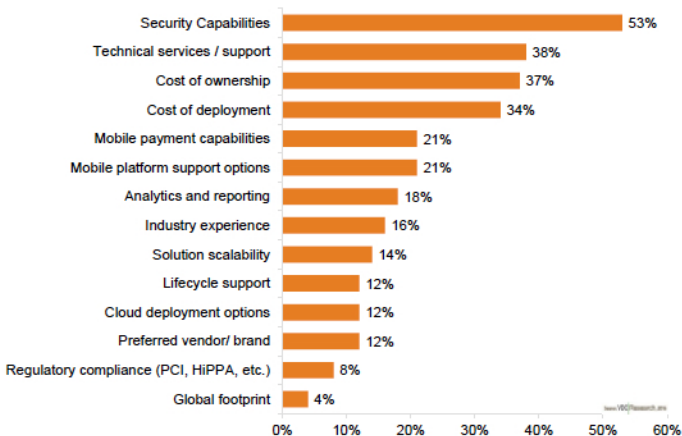


## Security: The Next Competitive Differentiator

It's well established that businesses need to protect themselves from different sources and different types of threats. But it's not just the portability and connectivity of smartphones and tablets that are exacerbating risks. While mobile devices have for all intents and purposes blown up the notion of a corporate network perimeter, threats now extend much further than devices: vulnerabilities, such as malware, direct attacks, data interception, exploitation, and social engineering, are evolving and remain a threat on endpoints in our hands, at our desks, on our networks, and in our service providers' datacenters.

In addition to managing these attack vectors and ensuring that data is being properly encrypted, another critical component of any robust and comprehensive security solution requires clear oversight covering all mobile assets. These security support services ensure that organizations can quickly locate devices at all times, effectively manage these devices remotely – and quickly intervene when necessary – monitor data on these mobile endpoints and how they are being used. In a recent poll conducted by VDC Research retail technology investment decision makers identified security capabilities as the leading criteria when evaluating retail solution providers. In addition to core security skillsets, solution providers are selected based on a variety of technical service and support capabilities that address mobile platform support, lifecycle support, with a critical emphasis on cost of deployment and minimizing overall cost of ownership.

*Exhibit 4: When evaluating mobile retail solution providers, what are the three most important selection criteria?*



As mobile investments become ever more strategic to retail operations, requirements to support these solutions are predictably changing. Among retail decision makers, the mobility issues of greatest concern to them range from ensuring that mobile solution uptime is optimized to minimize any disruption to operations, delivering intuitive and user friendliness of mobile solutions and making sure that mobile support costs are minimized. Retailers are increasingly looking toward third party solution providers to deliver those mobile asset management and lifecycle support requirements.

This is precisely why the concept of defense-in-depth resonates and is widely practiced. While there are great tools to secure your networks, lock down devices, and even individual applications, more advanced security solutions will be required – particularly once your organization becomes more reliant and sophisticated in the way it leverages mobility, modern operating systems (OSs), new applications, and new “things” that are being instrumented and connected with electronic tags and sensors. Finally, next-generation mobile security solutions have to ensure that the user experience is constant whatever the device. Mobile security applications and services should be easy to use and not put too much burden on the end user.

From a retailer's perspective security breaches also carry a very public face, directly impacting the organization's reputation and include significant remediation costs to the business. For example, the Target breach – which included the compromise of 100M customer records – at least in part contributed to a 46% YoY sales drop in the quarter following the incident. While many of the organizations experiencing the most significant breaches over the last several years have been able to rebound, and most accept that creating an impenetrable shield is not realistic, retailers are clearly looking for solution providers that best address their security requirements and can efficiently respond when a breach does occur. This was supported by research conducted by VDC Research which identified “security capabilities” as by far the leading mobile retail solution provider selection criteria.

With the growing risk of security breaches, implementation of security best practices will represent a competitive differentiator for retailers moving forward. This means not only implementing a layered approach to security from the ground up. In addition – and perhaps even more important – is ensuring that if (or when) a breach occurs, the response is proactive and well managed. Key mobile security best practices for retailers to follow include:

- **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 is 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.
- **Layered approach to mobile security solutions:** Mobile enablement introduces threats to enterprise IT that cannot be offset, mitigated, or prevented by a single technology solution. Combating those threats requires a layered approach to security to ensure the protection of corporate data.
- **Mobile solution lifecycle support services:** With limited IT resources support many retailers' digital initiatives, third party mobile managed service providers are filling a growing void in the market. From deployment services to mobile asset management and tracking, software and application management and retirement and upgrades, these solution providers offer comprehensive mobile lifecycle support solutions.

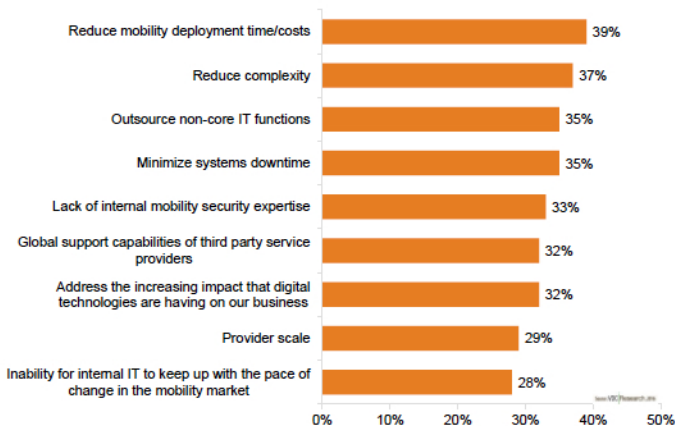


## Mobile Service Modernization: Designing for the Retail Business of Today and Tomorrow

CIOs and IT departments have never been under immense pressure to do more with less. With the vast majority of a typical retail organization's transactions running on legacy applications, the spotlight increasingly is focused on how well the application portfolio can drive business results and support innovation while keeping costs under control. At the same time retailers are facing extensive disruption to traditional retail business models and the pressure to find new and innovative ways to reach and engage with customers. From investing in next generation mobile solutions for customer engagement to modernizing legacy supply chain mobility solutions to meet today's omni-channel operations, for many retailers keeping up with these demands presents a significant resource challenge.

According to VDC's research, retailers are clearly committed to their mobility and digital transformation initiatives with nine in ten organizations stating that mobility solutions were more critical this year than the previous. However, a large share of retailers are frustrated with the pace of mobile development and digital transformation initiatives within their organizations. When pressed, retailer decision makers point out that "Lack of resources to fully support mobility initiatives" is the third highest rated barrier behind "Data and file security" and "Interoperability with legacy systems". Retail technology decision makers are actively looking to reduce mobility deployment costs and complexity associated with these solutions, opening the door for third party solution providers to fill that void."

*Exhibit 5: What are the primary drivers behind your organization's decision to invest in third party enterprise mobility professional services?*



As retailers come to grips with these market realities, they are increasingly looking for qualified IT solution and service partners to bridge their capabilities gaps. Managed mobility services are increasingly attractive for the opportunity to reduce downtime while cutting maintenance and management costs. Forward-looking organizations are turning this into

a competitive advantage by leveraging advances in mobile technologies to drive operational efficiencies and achieve more intimate and engaging customer interactions.

Device-centric services, such as maintenance and break/fix, are core to the enterprise mobility professional services opportunity; however, as mobile deployments expand, we continue to see organizations gravitate toward solution-oriented value propositions. We see a marked shift toward more strategic mobile enablement around collaboration and customer engagement. As demand for more sophisticated mobile solutions grows, professional services vendors will begin to see traction for vertically oriented mobility consulting services.

*Exhibit 6: Retail Mobility Support Requirements*

Mobile Support Service	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 Multi-national footprint
Depot Services/Provisioning	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 Compliance and governance Mobile device location tracking
Telecom Expense Management (TEM)	Monitor, manage and reduce telecom expenses	Remote feature management Sync restrictions International travel/roaming policy management User self-service
Mobile Application Management	Address full lifecycle services for mobile apps	Application lifecycle services Application acquisition, provisioning, distribution and tracking
Content Management	Platform to extend corporate content securely for mobile employees, contract workers and partners	File sync and share Reduce physical content creation costs Provide centralized locker to enterprise content
Monitoring & Analytics	Monitor and report on device, service and compliance	Solution use tracking KPI measure Workflow analytics
Lifecycle Support Services	Decommission devices upon departure, upgrade or EOL	Turnkey lifecycle management services

Based on VDC's research, key considerations when evaluating and selecting next generation mobility service providers include:

- > **Rapid deployment services:** The ability to fast-track projects while helping customers understand the ROI potential of their investments.
- > **Mobile application lifecycle services capabilities:** The ability to both develop and manage mobile applications will be increasingly desired going forward.
- > **Retail sector and sub-sector expertise** to cater to the variable requirements that are unique to your business.
- > **Provide service and support capabilities for all connected end-points, not just mobile devices.** Instrumenting legacy systems is becoming a key priority, as organizations are beginning to capitalize on the idea of connected devices and their associated business benefits.
- > **Advanced monitoring and analytics capabilities:** The ability to leverage cloud service and deliver real-time remote monitoring capabilities will be a key area for competitive differentiation moving forward.
- > **Global service footprint:** A critical element to being able to cater to multi-national requirements.

The stakes have never been higher for retailers. With the ever increasing impact of digital channels on consumer behavior retailers are increasingly challenged to optimize the consumer experience to better manage and maintain mindshare. Technology will play a vital role supporting retail strategies. However, it is equally important to not let technology dictate that strategy. The management of the customer journey through various channels remains the critical challenge for retailers heading into 2017 to ensure consistency of message and experience. However, it is equally important to realize that almost 90% of retail transaction continue to occur in physical retail facilities, and leveraging these as a competitive advantage is essential. From digital in-store experiences to omni-channel optimization, retail decision makers are facing significant investment options. Addressing these without compromising security and cost of ownership and support will represent a critical balancing act for many organizations.

## 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 STRATIX

Stratix specializes in the design, delivery and support of mobile solutions in the Enterprise. With the explosive growth of mobile in every area of the enterprise, the demands for mobile expertise, deployment resources and support specialists are growing exponentially. Stratix has the people, process and technology to focus exclusively on your mobile challenges, so you can get back to the business of running your business. [www.stratixcorp.com](http://www.stratixcorp.com)



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