



# Retalix 10 Store Suite — Single-Engine Software to Drive Multichannel Convergence

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WHITE PAPER

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## EXECUTIVE SUMMARY

IDC Retail Insights believes that the emergence of "same shopper" sales is the key retail measure, as it shows how well a retailer has grown sales to an individual customer across channels. Nowadays a retail brand is represented across many channels: retailers have to consider the value of cross-channel influence in order to be true to their brand's promise. For example, store sales influenced by online research are now three to five times larger than total ecommerce sales. We find that investments in exposed technology — those applications and tools that the customer interacts with directly — will raise the profile of the CIO to the role of business contributor. For the exposed technology to deliver the experience to the shopper, new investments should enable:

- **One differentiated brand experience.** Enabled by a harmonized process execution across all customer touch points, real-time customer insights, and interactions regardless of channel. Quicker time-to-market capabilities become imperative for retailers in order to differentiate their brand, improve business ROI, and drive larger, more frequent, and profitable transactions while attracting customers not familiar nor in proximity with the brand to the secondary channels.
- **Integration with embedded technology.** In crucial enterprise areas such as supply chain, product life-cycle, merchandising, demand planning, marketing, and loyalty management.
- **Unified, converged retailing.** It is vital for retailers to drive consistently multiple business rules, thus enabling personalized, converged multichannel interactions.

These requirements dictate the availability of a common engine that drives both customer transactions and interactions, underpinned by real-time information flows. Consumers already have clear expectations — now it is time for retailers to deliver the brand promise. Retalix 10, with its cross-channel harmonized real-time approach to all customer touch points and business processes, addresses retailers' needs and consumers' expectations in order to enable a new brand experience and improve business ROI.

## RETALIX 10 STORE SOFTWARE OVERVIEW

Retalix 10 store software is a suite of sales and store management applications architected with a single, unified engine that enables retailers to deploy, monitor, and take advantage of multiple in-store customer touch points, including POS, mobile, self-scanning, self-checkout, digital signage, and smart scales, integrated with online, catalogue, and other sales channels (see Figure 1).

**FIGURE 1**

Retalix 10 Suite, Unified Retail Services and Business Processes



Source: Retalix, 2011

The unique features of the Retalix 10 store software include:

- Single code base encompassing the core set of business rules that enable different applications and process flows.

- Underlying architecture based on a combination of item, customer, promotion, and transaction data. This combination enables personalization, customer-centric merchandising, and execution of store operation activities, along with sales channel support and planning possibilities to help achieve increased customer retention and spend.
- Architecture flexibility. Retailix 10 can be implemented with the following archetypes: fully centralized multichannel system architecture with thin clients in the store; traditional thick clients in the store and distributed store systems architecture requiring store-to-enterprise synchronization (and duplication); and smart store clients having local application resilience and operating under a hybrid architecture model, combining centralization with distribution.
- Retailix 10 is based on a test driven development (TDD) methodology and rapid software development principles.

The combination of Retailix 10 with Retailix's (or third-party) customer management and marketing/loyalty management applications can effectively enable retailers to manage personalized, targeted promotions and differentiated loyalty services through a single, highly integrated multichannel engine. Retailix 10 also includes a set of store and inventory management applications.

Figure 2 illustrates the high-level architecture of the Retailix 10 core software engine, built on retail services. The unique feature is the abstraction of data, business logic, and GUI into a single, self-contained engine that can effectively break the architecture silos of store systems (POS, self-service systems, etc.), therefore enabling a cohesive and converged multichannel system implementation.

Looking at the design and development principles of Retailix 10, we believe it should be able to deliver value to all stakeholders:

- Customers will benefit from a single, consistent brand experience, regardless of the touch point. Switching channels will no longer be an issue or involve duplication of tasks and actions. It will be an opportunity for consumers to use all channels as if they are just one.
- Merchants will benefit from both a line-of-business perspective (think time to market and top/bottom-line improvement opportunities) and from an IT perspective (reduced TCO, architecture flexibility, lower complexity to manage multichannel systems even in global and multisegment/multiformat retail operations).

**FIGURE 2**

Retalix 10 Store Software, Single-Engine Architecture



Source: Retalix/IDC Retail Insights, 2011

It also safeguards security, performance, and scalability requirements. From a performance/scalability angle, it is worth noting that the Retalix 10 performance and load tests are done automatically on a nightly basis.

### How Is Retalix 10 Addressing Global Retail Industry Trends and Requirements?

Does Retalix 10 match retail industry trends and meet the requirements of store/multichannel system buyers? Are there any significant gaps, or does Retalix 10 already bring real innovation to retailers? How future-proof is Retalix 10? In the following section we offer a comprehensive view of industry requirements that have fundamental implications on new store system investments. The following is based on primary research carried out over the years and on conversations with retailers around the world and across retail segments.

First things first. POS and store systems are long-term investments for retailers, with an average lifespan of 7 to 10 years, with spikes of up to 15–20 years in certain environments. Retailers that are considering replacing or upgrading their legacy POS system today should take into account the industry outlook for the next 5 to 10 years, at minimum, and anticipate the IT implications that may result from the possible industry dynamics and market requirements. To avoid veering out of the success track, business requires flexible and scalable store and

multichannel/multicommerce systems (with scalability to be intended here dynamically both upward to drive sales and downward to drive profits, depending on market conditions). Flexibility translates into the IT office's ability to minimize complexity, effort, and time for the implementation of new business requirements, which cannot be foreseen at the time of the initial implementation. This typically also results in lower TCO.

In our industry, IT plans tend, for the most part, to be concrete enough for a two- to three-year horizon, with longer-term visions and models defined by some of the industry leaders (for example, Tesco's global IT model to drive international expansion, METRO Group's RFID strategy, and Carrefour's multichannel strategy). What we firmly believe will reshape retail in the next 5 to 10 years is that consumers see one brand, and retail brands should deliver one unique customer experience, leveraging all the available touch points. This is what we call "omni-channel retailing" — in other words, a fully integrated channel approach that provides an immersive, single, and superior customer experience, regardless of the channel. The target customer is the "omni-channel" shopper, an evolution of the multichannel consumer who wants to use all channels — store, catalog, call center, Web, and mobile — simultaneously, not each channel in parallel. In order to make omni-channel the new retail reality, convergence and integration of both technologies and business processes must happen — both front and back office.

This is exactly the point where the store/multichannel system architecture discussion starts and where Retailix 10 and its flexible single-engine architecture can provide retailers with the relevant platform and features to support the business and IT goals. As we have seen over the past two to three years, retailers that are approaching the end of life of POS systems are moving from distributed architectures toward the adoption of centralized store systems. Retailers will continue to focus on the following two fundamental architectural models going forward:

- **Fully centralized architecture** — Typically preferred by retailers having fewer than 800–1,000 stores. POS clients, typically thin (fewer than 500 stores) or smart, are always connected to an enterprise POS/store system server, without the need to deploy back-office servers in each store. Smart clients can provide offline resilience in the event of network or central server failure.
- **Hybrid centralized architecture** — Typically preferred by retailers with more than 800–1,000 stores. A combination of real-time data exchanges and offline resilience with back-office servers deployed in each store. POS clients can be thick, thin, or smart. The hybrid approach functions as a centralized architecture that is based on multiple layers to further improve business continuity.

Whatever the architectural choice, retailers clearly recognize a distinction between centralized features and locally available data and functionalities (at minimum the data and features that are necessary to process transactions). Central store system resilience and store-to-

enterprise network redundancy, as well as disaster recovery systems, are effective mitigation steps for safeguarding mission-critical operations under centralized IT architectures.

Why is centralization such an important industry trend for the large majority of organizations? The following are the initial key drivers to store system centralization:

- Enabling real-time business visibility, decision support, and BPM.
- Enabling cross-channel customer visibility to support promo effectiveness and customer experience precision.
- Supporting the expansion of store locations and store systems technology refresh programs under a unified, standardized architecture (e.g., across systems, data, service-level agreements, and security), cost-efficiently.
- Supporting improved management efficiencies, time to market, and business performance of franchising and concessions models, and temporary and automated self-service stores.
- Reducing store system TCO while improving scalability, business continuity, and integration with back-end systems, and enabling simplified system governance.
- Improving store staff efficiency and productivity.
- Enabling effective enterprise policy discipline by improving enterprise control at a central level on decisions that are taken at a single-store or channel level, while ensuring the necessary degree of autonomy and flexibility for store/channel managers.
- Improving the customer experience, in other words delivering on the customer-centric promise.

Looking at these key drivers of centralization, it is clear that the key expectation for retailers is to obtain a better cost/benefit ratio from new store system investments. This suggests that retailers are focusing much more on improving the business ROI of new stores and multichannel system investments. Given the above requirements and their aims, we believe Retalix 10 is a viable option for retailers seeking to align IT and in-store/omni-channel business strategies.

How do retailers' requirements translate into store and multichannel system requirements? We advise on the following (see Table 1 for an analysis of the resulting technology implications):

- **Are store system vendors addressing the CIO challenge?** Retail CIOs are struggling to find a POS solution from a single vendor that can address the needs of their business across geographies, store formats, customers, and merchandising segments as needed for a highly dynamic, high-volume/high-complexity business. In the current market landscape, it is crucial to select POS/store

systems that can enable retailers to expand into different retail segments, geographies, and channels using the same platform. At the same time, the typical situation that we see today for multisegment/multiformat/multinational retailers is the deployment of multiple store systems that can cater to the specific needs of food stores, cosmetic and personal care stores, apparel/footwear/accessory stores, consumer electronic stores, convenience stores and petrol stations, and restaurants and quick serve locations, to name a few. When we project these issues on a global scale, the CIO challenge becomes even greater because store system vendors do not generally offer full application support in matching local requirements in every country (for example, tax, fiscal, accounting, and other regulatory requirements, but also the local, cultural consumer expectations and shopping patterns). CIOs will also have to take into account that the level of local support can fluctuate quite substantially across different geographies. The single-code base of Retailix 10, combined with its extensibility by design, meets the main needs of CIOs — simplification, standardization, and robustness — enabling different applications and process flows with a standard retail core.

- **The new POS: real-time retailing — now.** Modern POS systems, besides being mission-critical systems for retailers to process transactions, also exchange customer data for replenishment and inventory optimization, demand intelligence, merchandising, promo, price, and loyalty performance. POS systems collect and deliver the most precious data for retailers: detailed information on shoppers' behavior within a wider, virtual (online and mobile based), and physical (one or more stores) environment.
- **POS? No, thanks. Converged multicommerce systems.** The proliferation of in-store devices — for example self-service systems, self-checkouts, digital signage, electronic shelf labels, and retail mobile devices — is challenging retailers to achieve higher integration and data exchange flexibility among disparate store systems, as well as utilizing smart deployment and upgrade mechanisms.
- **How to beat the competition in a global, mature, high-complexity market? Time to market (TTM), differentiation, and customer focus.**
  - TTM should encompass the ability to sell new services that can drive incremental revenues, one day not three months after the business requirement drops into the IT organization. It includes the ability to speed up new store openings to enter new markets, manage and expand franchising networks more effectively, and enable pop-up store flexibility whenever the market calls for it. In essence, how can retailers attain quicker delivery of new functionality to the business without causing channel disruption or unavailability?

- Market differentiation requires the ability to influence customer perceptions (if not behavior), and drive engaging interactions, personalized loyalty, services, and support. In short, delivering immersive, personalized customer experiences by moving from a sales channel approach to an interaction channel model. It is one retail brand, one customer experience that consumers reward by leveraging the many available interaction opportunities.
- The ability to anticipate and shape demand through customer insight enables retailers to drive customer-specific promotions in addition to supplier-driven trade actions. Focus customer-specific actions on the combinations of top customers, channels, and sellers to simultaneously drive promo return rates, improve merchandising effectiveness, and reduce costs, in real time, to make the enterprise assets accessible to customers immediately as they walk into the stores or through the aisles, and not just after the checkout. The latter will drive not just impulse buying but, most importantly, will tailor the experience down to the individual. It will turn customers into *happy* customers simply because a retailer is helping them to save time (and not just money), offering products and services that are relevant to the individual consumer. This should also drive profitability when the necessary analytics and optimization tools are in place.
- **All of the above while achieving reduced cost of ownership (RCO) objectives?** This area alone could fill a whole new white paper. In short, retailers can achieve RCO for store systems leveraging GUI, which can drive cashier *and* in-store associate productivity; reduce store technology costs due to centralization and thinner deployment models; reduce onsite intervention for installation, maintenance, and support; and reduce help desk calls due to proven release upgrades. And more.
- **Are we forgetting payments and security?** Just two interesting highlights from our point of view. With Retailix 10, PCI compliance is achieved by architecture design, in other words based on the complete separation of payment processing modules and the rest of the system. End-to-end encryption, tokenization, and digital signing complements security functionalities.

**TABLE 1**

**Recommended Store/Multichannel System Buyer Approach**

| Industry Trend  | Key Implications and Requirements  |
|---|--|
| CIO challenge in multiformat, multisegment, multinational/global retail enterprises | Store systems should be architected to allow extensions and plug-ins for regional and customer-specific requirements, allowing rapid deployment and simplified governance.   |
| The new POS: real-time retailing  | The archetype of the networked store will enable the deployment of a centralized real-time database for an entire retail enterprise. This will make a major contribution to achieving both business consistency and simplification, and will allow store managers and executives to react quickly to shopping trends and retail decisions.   |
| POS? No, thanks: converged multicommerce systems                                    | A centralized architecture takes standalone and networked POS systems that batch process sales data to a real-time retail support infrastructure that can deliver instant sales performance information and drive operational excellence. An integrated retail technology environment where POS and other in-store technologies are tightly integrated with central enterprise applications such as supply chain, demand planning, merchandising and loyalty. A companywide networked multicommerce system, where stores are integrated with other retail channels such as online and mail order, is critical. |
| TTM   | Process, people, and technology alignment always come first. But the technology enablers are perhaps even more instrumental in this context. Agile, flexible deployment models should be available not only at the time of initial implementation, but throughout the useful lifetime of the store system. The Retailix 10 common code-based engine architecture is the most important technology piece, but testing and release management (whether for new functionalities and/or full store software upgrades) also play a crucial role.  |
| Differentiation and customer focus  | Converged multichannel system enabling the transition from multichannel to cross-channel to omni-channel customer experiences. Personalized interactions require real-time analytics that can drive actions regardless of the customer touch point. Offering multiple channels/touch points is instrumental in achieving strategic objectives.   |
| RCO: reduced cost of ownership  | Store system centralization with thin clients for maximum TCO reductions. Remote/reduced maintenance. Adaptable GUI. Data integration as opposed to fragmentation/duplication.   |
| Security  | PCI compliance and equivalent. Data encryption and tokenization. Seamless upgrading to future security requirements/standards, without the need to redeploy store/multichannel systems.  |

Source: IDC Retail Insights, 2011

**Lessons Learned From Retailers Adopting Retailix 10**

Retailix 10 is generally available to the market from this month (January) but has been evaluated and implemented by some large retailers across food and non-food segments since 2010. Among the

early adopters of Retailix 10, the following case studies highlight some interesting perspectives:

- A large grocery chain in Israel decided to centralize items, promotions, employees, store management, and transactions. The retailer implemented Retailix 10 POS and Retailix 10 Self Checkout and Retailix 10 Store Manager across several different formats and hundreds of supermarkets. An interesting aspect of the grocery chain implementation is the deployment model, based on thin POS and self-checkout (SCO) clients, two servers at each store, and backup servers at the enterprise level. As a result, the chain was able to deploy both POS and SCO on a single software code base along with consistent data and business logic management across customer touch points. The retailer also reported lower POS hardware and maintenance costs due to the central maintenance and support capability of the system.
- A leading department store chain in France completed the rollout of Retailix 10 POS, Retailix 10 Store Manager, and Retailix 10 Promotions Manager, all operated centrally as in the case of the Israeli grocery chain, with centrally based item, employee, and store management. The department store chain achieved a significant reduction in rollout time. The rollout of 550 POS systems at the chain's flagship store, for example, took just three weeks.
- A leading worldwide retailer is already in the process of upgrading its store solutions globally to Retailix 10 Store Suite, with rollout scheduled to start this year.

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## Benefits to Retailers

IDC Retail Insights has advocated the shift toward centralized store system architectures since 2008 (see *Retail Store Technologies Directions: Winning Formula Resides in the Architecture*, IDC Retail Insights #GRIT03Q, June 2008). The implementation of flexible, advanced, and centrally managed store systems is a key enabler for retailers to enhance consumer satisfaction, achieve store workforce productivity gains, and drive more profitable transactions. In the current business environment, the benefit to retailers that reach the omni-channel consumer is significant, as the omni-channel shopper now spends 20%–25% more than the multichannel consumer, which in turn already spends 15%–30% more than a consumer who purchases through a single channel. We expect that these gaps in consumer spending among omni, multi, and single-channel shoppers will increase going forward.

Over the past three years we assessed the following ROI metrics for centralized, demand-optimized store/multichannel management systems:

- 15%–35% increase in average transaction size

- 5%–25% sales lift when integrating targeted promos on self-scanning and/or interactive digital signage systems
- 30%–45% increase in online conversion rates
- 25%–30% reduction in promo cycle time, along with increased promo effectiveness and higher return rates from promotions
- 45%+ faster sell-through for markdowns
- 5%–10% increase in loyalty customer profitability
- 30%–50% increase in sales close rate with self-service kiosks that operate as guided selling systems
- 20%–60% reductions in inventory losses as a percentage of sales
- 2%–5% reduction in warehouse workforce costs
- Reduction of in-store labor costs (1%–5% depending on self-checkout system implementation scales in grocery retail)
- Higher customer throughput (up to 44%)
- Reduced waiting time (down 8%–25%) with self-checkout/self-payment systems
- 20%–35% reduction in store system TCO when implementing thin or smart clients

## FUTURE OUTLOOK

Consumer-facing technologies are quickly becoming the norm for younger generations, but also for high spenders and trend-setting consumers.

Looking 5 to 10 years ahead, the customer experience will most likely feature intelligent self-service, data-driven associates, "intuitive" touch, checkout "choice," personalized stealth marketing, consumer mobile device integration, 3D visualization, real-time stock availability, and order anywhere scenarios. The value chain will include custom inventory, store sensor networks, virtual sourcing, day-part pricing, and product freshness indicators. Private-label products will be increasingly important across retail segments, together with transparent customer analytics and item-level analytics. This highlights the importance of embedding customer experience targets back into supply chain and merchandise planning practices in order to achieve business excellence.

Mobility and digital marketing will dominate, as witnessed by the many merchants that have started to rethink their marketing strategies along these lines since 2009. Mobile is not just a third or fourth sales channel — mobile will become a key enabler to the other channels and can increase basket size, conversions, and retention rates, while

driving new customer acquisitions (think mobile-enabled loyalty and guided selling, context-aware, geo-localized mobile services and promotions, mobile customer assistance and checkout) As such, mobile consumer interaction tools and technologies will make the shopping experience ubiquitous and will allow retailers to create a highly valuable interaction that leverages customer mobile devices, retailer-branded mobile platforms, and other in-store technologies and enterprise systems. Why? Because mobile enables experience significance by dynamically adapting the experience to match specific customers' contexts whenever needed.

It does not stop here. Channel convergence also involves integration of social networks, blogs, and price comparison Web sites to attract and influence customers, to study demand patterns, and to support customers after their purchases are made. Social networked consumers are tribal, suspicious, viral, and addicted to the "digital system." In the medium to long term, we envision an open, consumer-driven, and retailer-participated social media space where all content can be shared effortlessly, crossing different media and channels as if they were one and the same — a space where retailers can provide timely and relevant perspectives on products, promotions, and services.

Within the context of the omni-channel retail convergence landscape, from a technology perspective we envision that the store may become a zero-software environment. The long-term expectation is that from the initial fragmentation across thick, thin, and smart store software client deployments — all consistently embracing a centralized architecture principle — retailers will transition toward a thin client approach to manage centrally converged channel opportunities. This will mean that store system infrastructures will most likely become cloud connected systems going forward.

As illustrated in this paper, a superior, immersive, omni-channel customer experience requires the blending of more than one technology-enabled touch point. The bottom line is that the combination of two or three customer-facing technologies provides a stronger offering within a selected domain. We identify four capability tracks or maturity steps that result from such powerful combinations: inform, influence, include, and immerse. These capability tracks — where typically food and non-food retailers opt to drive different paths forward — are not mutually exclusive. In fact, retailers can see the adoption roadmap as an integrated, gradual technology-enabled process that delivers strategic objectives for the organization. POS systems and other store-based customer touch point systems will be crucial components within the adoption roadmap and will become broader, centrally managed multicommerce systems that sit at the very heart of the new retail IT framework.

Back to the future, according to Shuky Sheffer, CEO of Retalix: "Retalix 10 takes the concept of store software solutions and architecture to a new level by efficiently and seamlessly combining major customer-centric retail functions — customer touch points, store management, targeted promotions, and loyalty — into a unified

solution based on one software 'engine,' while reducing TCO and facilitating quick delivery of new business capabilities."

## CONCLUSIONS

IDC Retail Insights has identified a clear trend toward consumer-facing technology convergence, and we believe that the Retailix 10 Store Suite and its single-engine architecture offers the necessary flexibility to address this requirement with an innovative yet pragmatic approach. Consumers demand choice, and will continue to reward retailers that can adapt quickly to different demographic requirements and lifestyle dynamics. Therefore the ability to adapt touch points to different customer usage scenarios drives personalized consumer services and precision retailing abilities. In this journey, the ability to digitally identify customers and enable them to build their own collections of items or paths of interest or shared communities, and make those personalized assets highly accessible throughout the organization, becomes central. Advancing precision-retailing disciplines and "clienteling" business models while balancing differentiated business strategies among fast-growing geographies and mature markets will be the biggest challenge and the greatest opportunity for retailers moving forward.

As a result, executing on customer-centric strategies requires the implementation of centralized, adaptive selling systems based on service-oriented integration capabilities as a foundation across the entire enterprise. Such a flexible store and multichannel management system — built on an agile and scalable infrastructure as the one observed with Retailix 10 — will also help simplify and improve operational workflows, benefiting both the retailer and the customer.

IDC Retail Insights recommends retailers to consider the following:

- Aggressively increase investment in immersive consumer experiences to serve omni-channel shoppers. This includes applying in-store technologies, improved call center capabilities, richer Web content, and greater reach through mobile commerce. The experience must be immersive so that it fits shoppers' circumstances rather than just impulsive to fit shoppers' urges.
- Ensure a unified, converged, omni-channel approach by supporting full technology and process integration between all of the selling channels to drive incremental rollouts of customer-facing technologies under a common, unified program. Enable a single, logical view of the shopper, the order, and the inventory regardless of the channel. Define a store-level integration framework based on SOA. The definition of a single, highly cohesive store system architecture across the many different technologies — including online — will result in the harmonized execution of every process across all customer touch points, private labels, and branded goods, as well as selling channels. Ensure tight front/back-end integration (supply chain, merchandise management, and customer selling).

- Strive to achieve excellence in targeting your most valuable consumer demographic segments based on individual interactions and services opportunities. Drive profits by focusing on same shopper sales and first-time buyers as key performance metrics. Differentiate the loyalty program member experience to overcome the average commodity usage that is currently evident in the industry. Adapt promotional strategies quickly, as advertising dollars are rapidly shifting to narrowcasting and digital. This requires an information foundation based on a retail demand intelligence platform. In the intelligent economy, all retail activities — merchandising, pricing, promotions, store layouts, etc. — must be defined by a deep understanding of customer preferences and behavior.
- Consider the timeliness of actionable intelligence. Real-time availability of transactional/POS and customer and inventory data will help maximize customer experience investment returns.
- Understand all the direct and indirect costs involved in customer-facing technology investments. Consider short-term payback opportunities and evaluate the long-term TCO impact — flexibility in undertaking future upgrades and scalability, IT management effort and maintenance, while enabling business differentiation to realize greater ROI.
- Define a three- to five-year strategic plan on mobile, and launch now. Use mobile as *the* enabler to the other channels. Transparent integration of mobile consumer and retailer devices, online channels, and in-store technologies will result in highly differentiated customer experiences. Therefore we advise retailers to consider the implementation of a mobile consumer interaction platform, as opposed to delivering just an iPhone app or equivalent. Such a mobile platform should be scalable, mobile device/OS agnostic, and fully integrated with back-end, core planning, and customer selling systems. Ensuring consumer appetite for context-relevant promotions and interactions (geo-marketing applications) will result in personalized interactions that will drive loyalty as well as larger, more profitable transactions. In practice, retailers will be capable of fostering same shopper sales as a key pillar for success through mobile.
- Emphasize shopper usability when evaluating new customer-facing technology investments. Front-end interfaces must be consumer-centric and ergonomic for all demographic segments. In turn, adaptable system management and store operation management tools will provide merchants with workflow-centric and role-based user interfaces that require limited employee intervention for the benefit of staff productivity and customer satisfaction.

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