A SUPPLEMENT TO RIS NEWS

13TH ANNUAL

STORE SYSTEMS STUDY 2016

RETAIL TECHNOLOGY SPEND TRENDS

Brave New World of Unified Commerce

Tracking the emergence of a long-term strategy to achieve unified commerce

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Store Systems Evolution

Over the course of *RIS News'* three decades of covering retail technology, evolution has become standard procedure. For example, 13 years ago we began a great collaboration with the IHL Group on a benchmark study that was devoted to current and future investment trends for POS systems. This quickly evolved into a study that covers the full range of hardware and software systems that are essential to running a chain of stores at large regional and national organizations.

This year the IHL Group and *RIS* take another step in our evolution and begin exploring the long-term strategy of unified commerce. The best way to understand unified commerce is to note that technology stacks and sales channels are built in silos. This has occurred for different reasons, but the end result is the same — back-end systems that frequently do not deliver smooth interoperability and often produce frustration for customers who expect a seamless experience between digital and physical sales channels.

This multi-channel, multi-silo approach is also a source of frustration for retailers because it is expensive to manage and maintain, delivers untrustworthy data integrity across silos, becomes a chokepoint for rolling out advancements, and basically requires a massive IT transformation to fundamentally fix the problem.

This transformation is something we call "unified commerce" and it has become a major component of the study. For unified commerce to become a reality, retailers need to embrace two core components: **1.** Foundational systems that operate with one consolidated version of the truth with retail applications layered on top; and **2.** A presentation to the customer that appears seamless and without evidence of back-end barriers that prevent delivering quick and easy convenience through a host of retail services.

In last year's report we looked closely at distributed order management (DOM) as a key element in the emerging unified commerce evolution. The reason DOM is a good starting point is that it forces a retailer to create a consolidated view of inventory status. This foundational element can then be used to deliver accurate and seamless fulfillment, customer purchase histories, enterprise-wide transaction reporting, and much more.

Although much has changed in the study over the years, one thing has remained constant — the close collaboration between *RIS News* and the IHL Group, especially Greg Buzek and Lee Holman, the chief analysts and authors of this report. In this instance, the more things change the more they stay the same and all of us get the best of both worlds.

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Unified Commerce Awakens

Tracking the transformation from technology and sales channels silos to unified commerce

By Lee Holman and Greg Buzek

For the past 13 years, *RIS News* and IHL Group have collaborated to bring the retail industry the definitive Store Systems Study that examines coming trends for the year in the area of technological advances that impact store operations, growth plans, budgets and planned purchases.

Historically, retailers have established a technology silo for their first sales channel, which for the vast majority was a brick-and-mortar store. In the rush to bring subsequent sales channels on board, these retailers chose to establish additional silos rather than attempting integration with the first silo. The end result was multiple silos for multiple channels, which is not only expensive to establish and maintain, but it offers little in the way of data integrity across silos.

In the process of acknowledging this, retailers have slowly been embracing technologies that will ultimately enable them to streamline offerings and services to their customers regardless of channel. From an analyst's perspective, we see this process transitioning from single channel to multi-channel to cross-channel to omnichannel (a term that is generally understood if not well defined).

The next step is something we call "unified commerce" and it is where retailers are moving to now and are on the verge of achieving. This transition affects every retailer in game-changing ways and therefore has a major impact on the mission of this study. Unified commerce is now a major component of this study and we address many of the most pertinent aspects of the current transformation as well as some macro trends in the current economic climate that will have an impact on technology strategies.

Major Trends for 2016

Retailers plan to increase their IT spending for the coming year. For example, enterprise IT spending will grow 4.6% and store IT spending will rise 3.9%. The store IT figure has rebounded nicely from last year's figure, which was the lowest since 2008.

We can draw some pretty strong conclusions from several key areas of data in the study. These include:

- Retailers will expand their store counts by 5.0% overall and expect to conduct 4.0% more store remodels than in 2015.
- Expansion of stores and remodels translates into expansion of IT so it is validating to see the enterprise IT growth of 4.6% match the expansion/remodel figures. Store systems and cloud technologies will get the biggest bump in the spending numbers.
- Nearly a third of retailers are planning to make a new POS decision in the next 12 months (31% for software and 23% for hardware). These are encouraging figures after last year's study.
- Overall retailers say that 26% of software spending in 2016 will be on cloud-based solutions. Of the spending in the following categories here are the percentages that will go toward cloud-based solutions: 51% on e-commerce, 38% on sales/marketing and 28% on BI software.
- Only 18% of retailers made the October 2015 EMV deadline. The primary reason for the missed deadline was delays caused by financial institutions/processors (claimed by 38% of retailers).
- There is a rapid increase in the amount of software development happening internally. Many leading retailers are writing their own code as mergers, acquisitions and cloud deployments homogenize systems. Building, rather than buying is a

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IHL Group is an independent business-consulting organization headquartered in Franklin, TN. It specializes in business consulting, professional and technology referral, market analysis and business planning for retailers and technology companies that focus on the retail industry. Anyone who wants more detailed data and analysis about this study can contact IHL Group at www.ihlservices.com.

way of keeping competitive advantage.

- Nearly 18% of retailers currently use five or more of the unified commerce capabilities presented in this study.
- 53% currently check inventory at other stores.
- 43% claim they can order inventory at other stores and 39% claim they can return an online purchase at the store.
- 15% say they have true holistic merchandise/assortment planning across all channels.

It bears noting that this report is a summary of the overall data and analysis. Two items in particular that are not covered here are: The rapid change in the profitability of multi-channel customers and which software vendors retailers are planning to increase business with, decrease business with or simply won't work with in the future. Those interested in these or other details can learn more about the complete study charts and analysis at **www.ihlservices.com.**

CHART 1
Retail Segments

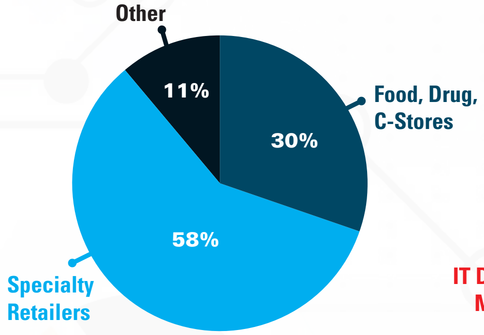


CHART 2
Job Title

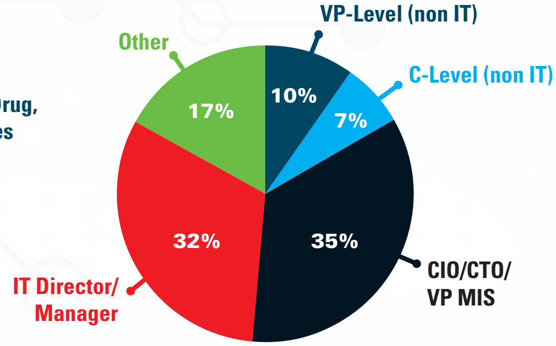


CHART 3
Revenue Segment

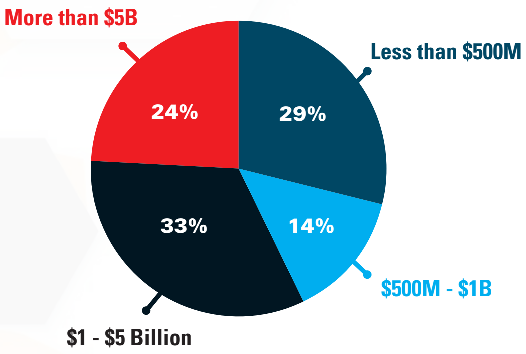
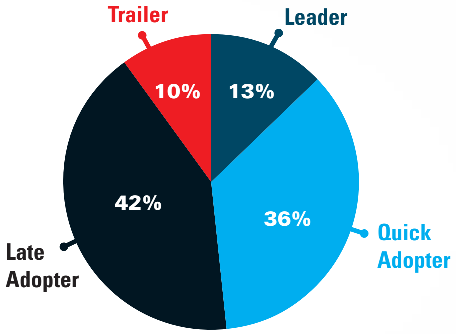


CHART 4
Tech Profile



Methodology

In this year's study 57% of the responses came from retailers with more than $1 billion in annual revenue and includes such retailers as Home Depot, Costco, Ann Taylor, Best Buy, Rooms To Go, Walgreens and GAP. Of the total, 20 had revenue in excess of $5 billion. The responses of the larger retailers are highly valued since they drive total IT spending in the industry as well as technology proliferation throughout the marketplace.

Tier 2 retailers (annual revenue ranging between $500 million and $1 billion) were well represented with 14% of the responses. Another 29% consisted of retailers with less than $500 million in revenue. These smaller retailers tend to be forward-thinking, with excellent financial results that stem from their view of technology as a means to drive store execution and deliver a superior customer experience. They are also often among the fastest growing retailers in the country.

Note that all respondents are headquarters staff and no field representatives or store personnel were included. The survey took place in October and November of 2015.

Developing a Long-Game Strategy

A positive environment for growth fuels investment strategies that lead retailers to the long-term goal of unified commerce — seamless front and back-end systems

For the sixth consecutive year retailers report they plan to increase their store counts and remodels, which indicates the majority of retailers are predicting a positive environment for business growth in spite of a sluggish economy and serious drags on their ability to invest in IT due to security issues and requirements such as EMV.

The biggest growth segment in store counts is food/drug/convenience stores (FDC), which is planning a solid 7.0% increase for 2016. General merchandise stores (GMS) plan a 4.1% store expansion. When it comes to remodels, GMS plans a 4.1% increase and FDC a 3.8% gain.

A deeper look into retail segments reveals that convenience stores plan to increase their store count by double digits and drug stores plan to grow 5.5%. In the area of store remodels, convenience stores will increase their activity 5.6% over 2015 and specialty hard goods retailers will increase 4.2%.

In the area of hiring IT staff, specialty retailers have the most ambitious growth plans, with soft goods planning an increase of 4.1% and hard goods 4.0%.

Strong IT Spending for 2016

Enterprise IT spending is moving up 4.6% from last year. In 2015 the figure was 4.0%. And once again it outpaces store IT spending, which will rise 3.9%.

CHART 1

Store Count & Remodel Growth Plans

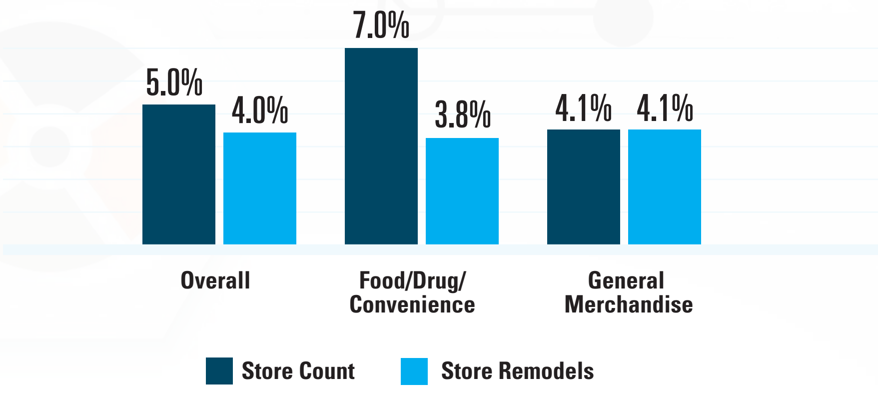
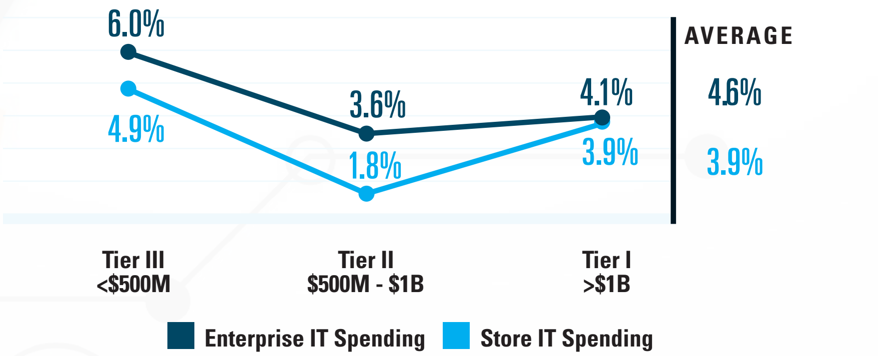


CHART 2

IT Spending Growth in 2016



"Capital spending for store expansion and capital spending for technology go hand in hand. The flip side is also valid: retailers who anticipate a net decrease in store count for 2016 do not expect to see much of an increase in IT spending."

The bulk of enterprise spending in 2016 will most likely be aimed at the transformation process currently underway to convert channel-specific, siloed systems into a unified system that encompasses "one version of the truth" for products, customers, transactions and sourcing locations. This transformation is expected to require significant initial investment, but once it is up and running the new systems should enable retailers to achieve ROI as the costs for maintaining siloed systems becomes unnecessary.

Retailers that have plans for increasing their store count in 2016 are obviously more inclined to plan an increase in store IT spending and they indeed show a growth rate that is 34% above average. Enterprise IT spending for these retailers is 18% above average. This serves to demonstrate that capital spending for store expansion and capital spending for technology go hand in hand. The flip side is also valid: retailers who anticipate a net decrease in store count for 2016 do not expect to see much of an increase in IT spending — just a 0.5% increase for enterprise IT spending and a 3.1% decline in store IT investment.

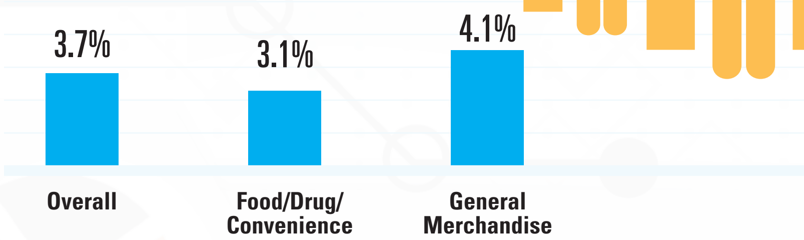
Looking a bit closer at the data, 72% of respondents plan to increase their enterprise IT

59%

Retailers who missed the EMV deadline

CHART 3

IT Hiring Growth in 2016



3.9%

Average increase in-store technology spending in 2016

spending next year, which is up from 65% last year. For store IT spending, 66% plan an increase for 2016, which is up from 57% last year. The average increase for retailers who plan an increase is 5.5%, which is down from last year's 6.9%. The key purchase areas for these retailers are POS software and mobile POS (36% of these retailers plan to purchase both), POS hardware (30%) and mobile device for managers (29%).

Despite solid growth plans for the majority of retailers, 30% say their IT spending will be flat in 2016 at the store. For these retailers, the key spending targets for 2016 are digital signage (29%) and mobile devices for associates (24%).

Top Store Priorities for 2016

We asked retailers what their top store priorities were this year and anticipated that their responses might be somewhat tempered as a result of the shift to embrace unified commerce functionality, but we needn't have worried. Retailer store priorities run a wide gamut.

The leading priority for 2016 is advanced CRM/Loyalty, which is a perennial leader in this category and has ranked in the top five on our list for each of the past 10 years. This year more than half of retailers (52%) say

CHART 4

Top Store System Priorities for 2016

5%

Average growth in store count expansion

they have new investment plans for CRM and loyalty systems. In last year's study we found that 50% of retailers said they couldn't effectively use their existing shopper loyalty profiles in the store. So, what's going on? Are retailers making progress in implementing effective CRM and loyalty software or not?

We didn't ask the question in the same way this year but can surmise that as retailers simultaneously upgrade their CRM capabilities and embrace the "single version of the truth" approach, most problems they are trying to solve might not vanish overnight, but they will be seriously cut down in size. Once the back-end issues are resolved, then these solutions can be used successfully by associates to provide services to individual customers in stores.

> **"Store level BI/analytics has seen a significant jump in the priority rankings in the last two years, moving from 9th place in 2014 to 3rd in 2016."**

Mobility for associates has been a top-five priority in each of the last five years and this year it ranks number two, which is up a notch from last year. While we think the first wave of experiences with in-store mobility has been a net positive for retailers, we also think some of the novelty has worn off and more rational thought is being applied to future roll outs.

As a priority for 2016, mobile for associates was selected by 42% of all retailers. For GMS the figure was 50% and for FDC it was 23%. The low rate for FDC is attributable to that fact that margins are historically lower than other segments and IT spending is frequently focused on lane transaction speed.

Store-level BI/analytics has seen a significant jump in the rankings in the last two years, moving from 9th place in 2014 to 3rd place in 2016, where it was selected by 35% of respondents.

As retailers move to deliver more data to the sales floor, inventory visibility (32%) takes on added significance and a growing number of retailers are incorporating this functionality in their mobile solutions.

Rounding out the top five priorities for 2016 is store WAN/WiFi upgrades, (29%), which are a necessity for the growing increase in associate and consumer digital capabilities in the store as well as the emerging unified commerce data transfer needs.

EMV Was a Hiccup, Not a Strategy

What do Sarbanes-Oxley, PCI compliance, affordable healthcare, and most recently EMV have in common? None of them were initiated by retailers. More than any other industry, retailers have borne the brunt of both financial costs and lost opportunities due to mandates that have sapped their resources in recent years.

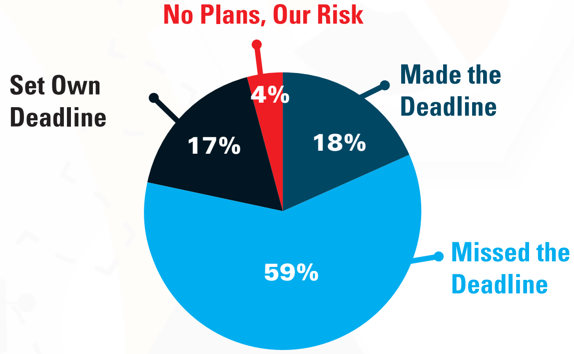
We have been vocal about the problems retailers face deploying such initiatives, and we have presented myth-busting facts that explode the overblown claims made for these initiatives. Most recently, the IHL Group published what some have described as the definitive report on EMV entitled "EMV: Retail's $35 Billion 'Money Pit.'" In it we showed not only that the issuing banks and card networks were more concerned about revenue streams and market share than providing actual security to retailers, but also that within the retailer's own ranks there was a significant gap between fact and reality when it came to EMV's effect on transaction times. What we found is that C-level and marketing executives believe that transaction times will decrease at checkout, while development personnel (the ones who are actually working with transaction times) know that they will increase by an average of 1.3 seconds for fixed stations and for mobile it will be 2.5 seconds.

All that said, the deadline for the liability shift from the issuing banks to retailers was October 2015. We asked retailers if they made the deadline or not and only 18% said they made it and 79% of these were tier-one retailers. More than one in five retailers (21%) said that they paid no attention to the deadline, by either ignoring it altogether and accepting the risk (4%) or establishing their own deadline that made more sense than during the immediate run-up to the Christmas shopping season (17%).

Nearly three in five retailers (59%) attempted to make the deadline and failed. Of those that failed, 38% blamed the issuing bank/processor, 36% blamed the software vendor, and 20% blamed the hardware vendor. A modest 7% blamed their internal organization. •

CHART 5

EMV Deadline Status — Few Retailers Made It!



"More than one in five retailers (21%) said they paid no attention to the EMV deadline by ignoring it and accepting the risk or by establishing their own deadline after the run up to the Christmas shopping season."

4.6%

Average increase in spending on enterprise technologies in 2016

Moving Beyond Channels

Charting the brave new world of cloud software, unified commerce and emerging technologies

The results from last year's study left us with the impression that 2015 would be a fairly lean year in terms of POS hardware and software investments and we wondered if this was the beginning of a multi-year trend. This year, however, we are seeing a pretty good recovery of investment plans in traditional POS systems with 31% saying they expect to make a POS software purchase in 2016 and 23% expecting to make a POS hardware decision.

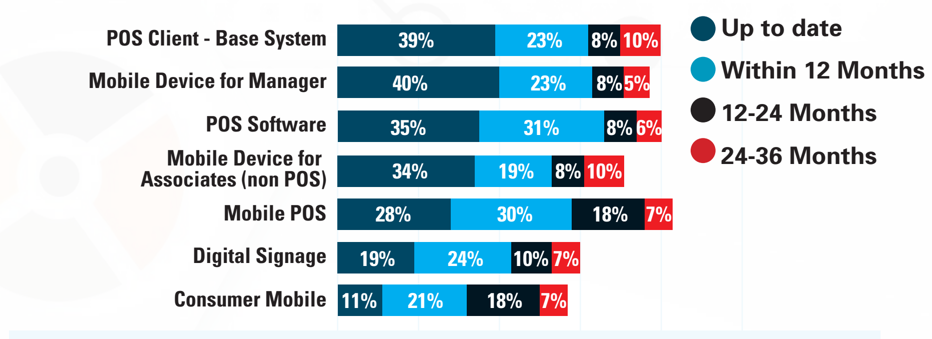
This is not a repudiation of the fact that we have witnessed a sharp advancement in mobile POS over the past few years and have also noted a slow but steady de-emphasis on traditional POS systems. Indeed, we view this year's results as a confirmation that current mobile POS strategy is thought of as being "in addition to traditional POS" rather than as a "replacement for traditional POS."

Leading all segments for POS hardware sales opportunities in the coming year are the specialty soft goods retailers (36%) followed by specialty hard goods (21%). The food/grocery segment reports just a 7% increase in POS hardware investments. This is caused, in part, because grocers tend to hold onto their POS hardware two to three times longer than other retail segments.

The figures for POS software follow the hardware trend with

CHART 1

Store Systems Purchase Timeframe

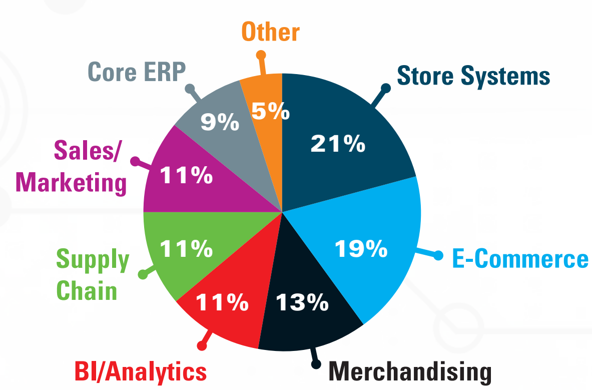


68% of retailers' have associate WiFi in stores

37% of retailers' have customer WiFi in stores

CHART 2

Top Software Spending Categories for 2016



specialty soft goods leading the way at 43% followed by specialty hard goods at 28%, and food/grocery at 21%.

Mobile POS surges to a new level this year and, essentially, parallels consumer interest in all things mobile. We find that 30% of all retailers claim they will make a mobile POS purchase decision in 2016. We view this as an indication that the first wave of mobile POS, which was a learning experience for many retailers, is emerging as a positive experience for those who took the plunge (and for those who observed from the sidelines). Now that the hype is over and reality has set in, retailers are beginning to make realistic and rational decisions about deploying mobile POS.

Specialty retailers continue to be the leaders when it comes to mobile POS. Nearly half (48%) of specialty hard goods retailers are planning a mobile POS decision in the next 12 months and 29% of specialty soft goods retailers.

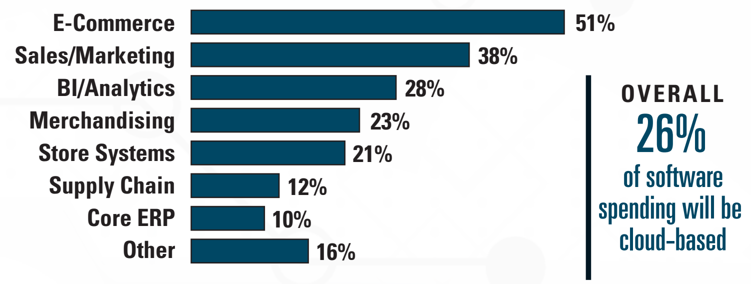
Nearly a quarter (24%) of all retailers are looking to make a digital signage investment in 2016. Of these 32% are specialty hard goods retailers and 26% are food/grocery. Nearly three quarters (72%) of those looking to add mobile devices for managers are specialty retailers. Overall, 23% of retailers want to add them in 2016.

When we look at software investment plans we find that store systems, which refers to solutions that are essential to all aspect of store operations, is the top software category at 21%. The segment most prone to franchising was the leader in store-system investment — convenience stores (37%). Interestingly, the next biggest chunk of software spending is, like store systems, heavily involved in transactions — e-commerce at 19%. In this area, specialty retailers led the way with soft goods at 25% and hard goods at 22%.

Merchandising software was the next highest software segment at 13%. Specialty soft goods retailers (23%) led here probably due to the apparel segment's need to be up-to-date with software to keep pace with

CHART 3

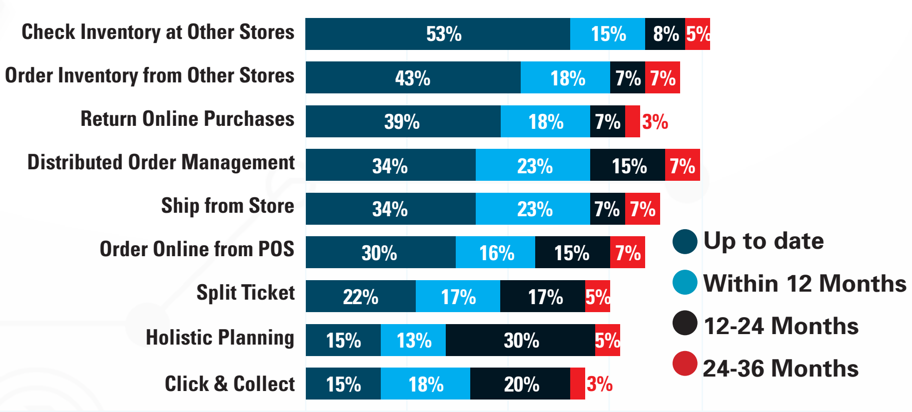
Cloud Portion of Software Spending in 2016



"When we look at software investment plans we find that store systems, which refers to solutions that are essential to all aspects of store operations, is the top software category at 21%."

CHART 4

Timeframe for Unified Commerce Capabilities



fast-changing fashion trends. Father down the list of major software investment categories are: BI/analytics (11%), supply chain (11%), sales/marketing (11%) and core ERP (9%).

Software in the Cloud

The debate has gone on for some time about whether or not cloud-based systems have come of age in retail. Since 2014 we have been citing such positive benefits as using thin clients and fewer servers at the store level. We have also cited a key negative that retailers worry about — requiring a reliable fallback plan if web connectivity goes down.

In this study, we asked retailers how much of their planned 2016 software investment plans were going to cloud-based solutions and discovered the figure is a hefty 26% overall. The top breakouts include: 51% for e-commerce software, 38% for sales/marketing, 28% for BI/analytics, merchandising 23%, and store systems 21%. Coming in at the bottom of the cloud-solution list are supply chain and core ERP solutions.

The figures for general merchandise (GMS) and food/drug/convenience (FDC) retailers are 25% and 24% respectively. Key areas for GMS are in e-commerce (46% of planned software spend), sales/marketing (35%) and BI/analytics (32%). For FDC the breakouts include e-commerce (56%), sales/marketing (36%) and BI/analytics (29%).

Unified Commerce

Major trends in retail IT over the past few years have moved from single-channel to multi-channel to cross-channel and then to omnichannel, an all-in effort to describe the reality that retailers can

26%

Amount of planned software budget that will go to cloud-based solutions

"Correctly deployed, distributed order management becomes an essential element in delivering "one version of the truth" and a seamless experience to the customer."

no longer silo their customers and go-to-business approaches by individual sales channels.

The problem with these "channel" terms is that consumers don't think this way and the fact that retailers need to focus on commerce as a whole and not just channel-specific engagements and business models. Because of this reality we believe that the best way to describe the road ahead in retail is by using the term "unified commerce."

This term encompasses the idea that regardless of what types of channels a retailer embraces or how many there are two things need to happen: **1.** Foundational systems, on top of which are layered commonly used retail business applications, need to operate with one consolidated version of the truth; and **2.** Retailer presentation to the customer needs to appear seamless and without evidence of back-end barriers to delivering quick and easy convenience and services.

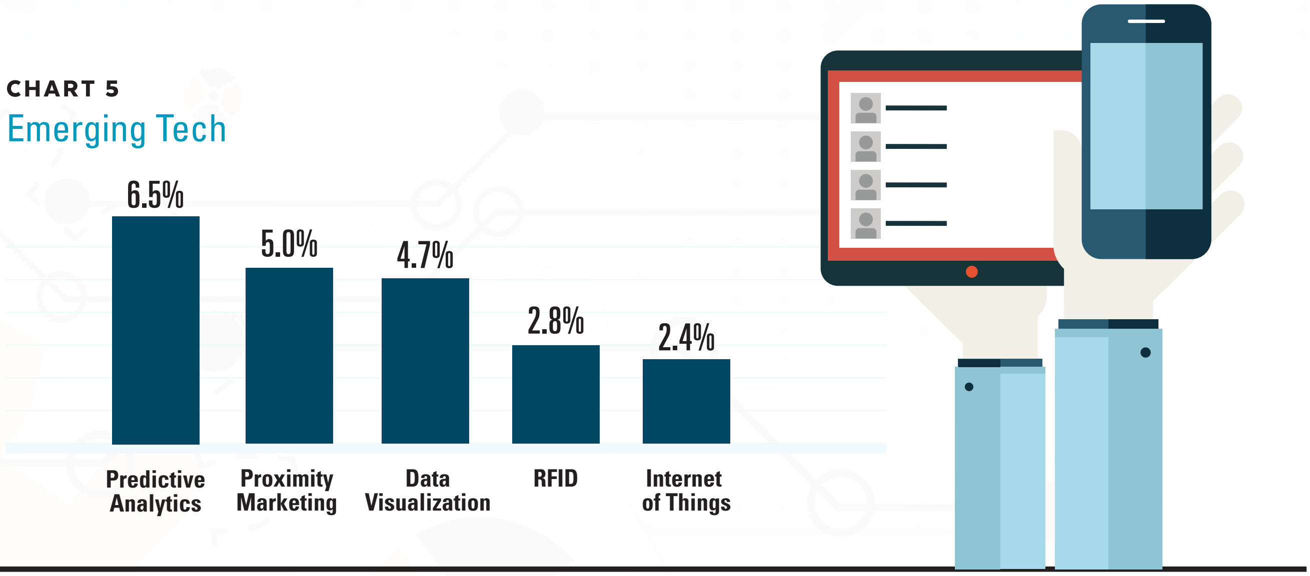
Last year, we looked closely at distributed order management (DOM), as a key element in a unified commerce engine that would serve as a foundational system for a consolidated view into inventory status, fulfillment, customer purchases, transactions and sourcing locations regardless of channel. The DOM application is intended to be flexible enough for retailers to add any POS front-end of their choosing and accommodate current or future mobile or e-commerce enhancements. Correctly deployed, DOM becomes an essential element in delivering "one version of the truth" and a seamless experience to the customer.

Retailers are working hard to get unified commerce and DOM right. For example, the ability to check inventory at other stores: 53% of retailers can currently do it while 43% can order inventory from other stores. These are essential unified commerce capabilities that help retailers make endless aisle sales even if the product is out of stock in one particular store.

In fact, unified commerce capabilities are well suited to drive customers to brick-and-mortar

CHART 5

Emerging Tech



stores and ensure that when they leave they are satisfied after their visit. Returning online purchases in stores falls into this category and we find that 39% of retailers currently have this capability and another 18% plan to acquire it in 2016.

Other capabilities that help retailers convert their stores into hubs of omnichannel capabilities include: ship from store (34% have now and 23% have near-term plans to add) and order online from POS (30% have now and 16% will add soon).

We opened this segment with some analysis that touched on the importance of distributed order management as an essential element in the long-term vision of unified commerce, so it is a validating point to find that more than a third of retailers (34%) have already embraced the technology. Nearly two-thirds of these are tier one retailers. We also find that nearly a quarter (23%) of retailers plan to add DOM in 2016 and, surprisingly, nearly half are tier-three retailers.

The last word here belongs to Holistic Planning, which refers to planning across all channels holistically as opposed to planning across each channel separately and then rolling up the numbers after the fact. Currently, only 15% of retailers claim they currently have this capability. We do not view this as a low number. Retailers have a lot of consolidation work to do to get to "one version of the truth." Once they get there, then and only then can they effectively do holistic planning. Going forward, this number will increase slowly and steadily.

Emerging Technologies

Doing this study annually enables us to get a front row seat at the dawn of new and exciting technologies that emerge in retail. We explore several of these emerging technologies in the study, but the list is by no means meant to be comprehensive. Instead, it is meant to analyze technologies that retailers are realistically planning to adopt as opposed to bleeding-edge technologies that have yet to figure out a way to deliver business value.

Predictive analytics is a solution that has been gaining notice among retailers over the past few years and has steadily matured. This technology uses large volumes of data to do what-if scenario modeling and algorithms to calculate outcomes of future decisions. Retailers say that in 2016 they plan to spend 6.5% more on predictive analytics than they did in 2015. This is the largest dollar increase among the emerging technologies we tracked. We found that 61% of retailers (mostly in the specialty hard goods and soft goods segments) are planning to increase their spending on predictive analytics.

Proximity marketing (which typically but not exclusively refers to beacons) has also received a large amount of attention in the past couple of years. Some major retailers have moved forward with significant proximity marketing deployments, such as Apple Stores, Macy's and Lord & Taylor. Beacons and similar technology push alerts to customers inside a store informing them of relevant promotions and sales.

This technology is most effective when linked to both analytics and CRM solutions. In an ideal scenario, proximity marketing can mimic one-to-one marketing. In 2016, 41% of retailers plan to increase their spending on some kind of proximity marketing technology. •