



POS/CUSTOMER ENGAGEMENT SURVEY



18TH ANNUAL
SURVEY

2017

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Executive Summary

The customer experience is the foundation for retail. However, meeting the expectations of today's customer has become extremely challenging. With the advent of online and mobile shopping, consumers now demand a seamless experience across all channels – in real-time.

The new retail paradigm is a personalized customer experience that is channel-agnostic. Consumers don't think in terms of stores or Website or mobile – it is one holistic brand experience.



As we analyze the findings of the 2017 POS/Customer Engagement Survey we segment the topics into four key areas of the customer experience: personal, mobile, seamless, and secure. Personalization of the customer experience is key and offering more mobile options and real-time retail are necessary to make the experience seamless across channels. To ensure the trust and loyalty of the customer, data security is also critical. With these tenets in mind, we identify how retailers are fairing in their quest to ensure that the four key pillars that define the required customer experience are in place to deliver unified commerce that is: **personal, mobile, seamless and secure.**

KEY FINDINGS:

PERSONAL



75% 

plan to use Wi-Fi to ID customers with their mobile devices in the store by the end of 2019

80% 

will suggestive sell based on previous purchases within 3 years

MOBILE



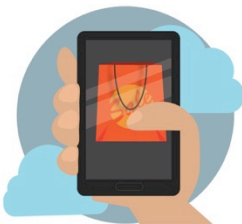
89% 

will offer mobile solutions for associates within 3 years

84% 

will use mobile POS within 3 years

SEAMLESS



71% 

plan to have a unified commerce platform by the end of 2019

60% 

plan to have centralized POS within 2 years

SECURE



96% 

will have end-to-end encryption (E2EE) by the end of 2019

73% 

will offer a single token solution across the enterprise within 3 years

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“Unified commerce goes beyond omni-channel, putting the customer experience first, breaking down the walls between internal channel silos and leveraging a common commerce platform. Retailers are moving in this direction with 71% planning to have a unified commerce platform within three years.”

Brian Brunk, BRP principal

The New Retail Paradigm

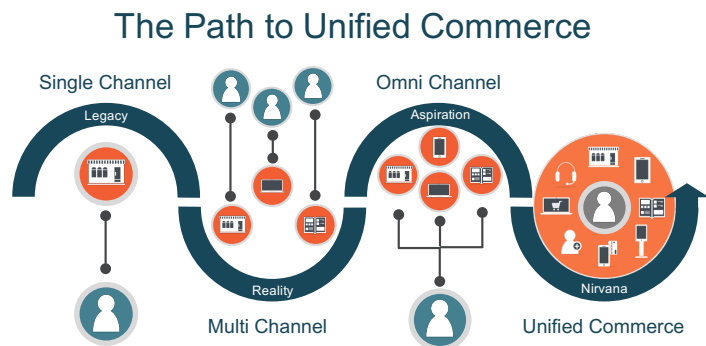
The mobilization of retail and a renewed focus on customer centricity is the catalyst for the new retail paradigm of anywhere, anytime, anyhow shopping – in other words, unified commerce.

Retail models are quickly changing. Stores still represent the majority of retail purchases, but the definition of store is rapidly changing. Unified commerce is the new retail nirvana and the store of the future represents a unique point of customer engagement with physical opportunities more than a point of purchase. This, coupled with digital experiences that are increasingly personal and mobile, has blurred the lines between channels and created the expectation of anywhere, anytime, anyhow shopping. This is fundamentally redefining the retail store experience, requiring a balanced blend of physical and digital that works seamlessly with any customer touch point, creating a holistic brand experience. To enable this experience and support it as it continues to rapidly evolve requires a different technology approach.

Retail’s legacy technology of channel silos does not support this new retail paradigm; unified commerce requires a common platform.

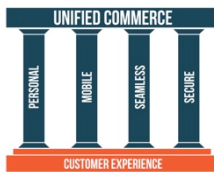
For decades, retailers added new technology as they moved into new channels and separate systems were implemented for each channel without normalizing the use-cases. This model has been perpetuated and nearly all retailers have ended up with disparate technology and duplicated cost structures at almost every customer touch point. For instance, when e-commerce was introduced, retailers implemented disparate stand-alone systems, and in many cases support staff and inventory that weren’t integrated with other channels like the store. They often had separate inventories and unique, redundant systems for order management, customer relationship management (CRM) and merchandising – and they were only synchronized at the end of the day or week.

In the past, networks were unreliable, slow and expensive, thereby creating a decentralized store technology model – generally updated with yesterday’s data – based on necessity. With today’s robust, reliable and resilient network technology, retailers can truly achieve 100% uptime, with real-time customer and product information, removing the last perceived hurdle to moving away from decentralized commerce solutions that have been the model for decades. As retailers are deploying more applications in the cloud, the network plays a central, key enabler role in the future of unified commerce platforms.



The future of retail and unified commerce requires a common commerce platform that enables real-time visibility and integration across every customer touch point. No longer can retailers afford to think about a transaction or an order as occurring at one point in time or in one channel. True unified commerce requires holistic experiences, transactions and orders that move seamlessly with the customer. Legacy retail technology has focused primarily on the point of purchase. This must change to realize unified commerce and shift the focus to robust, personalized and seamless customer engagement.

It is in this environment that BRP conducted the 18th Annual POS/Customer Engagement Benchmarking Survey to understand retailers' current priorities and initiatives.



The Customer Experience is the Foundation

Unified commerce starts with defining the ideal customer journey. This determines the necessary business capabilities, which then shape the technology choices.

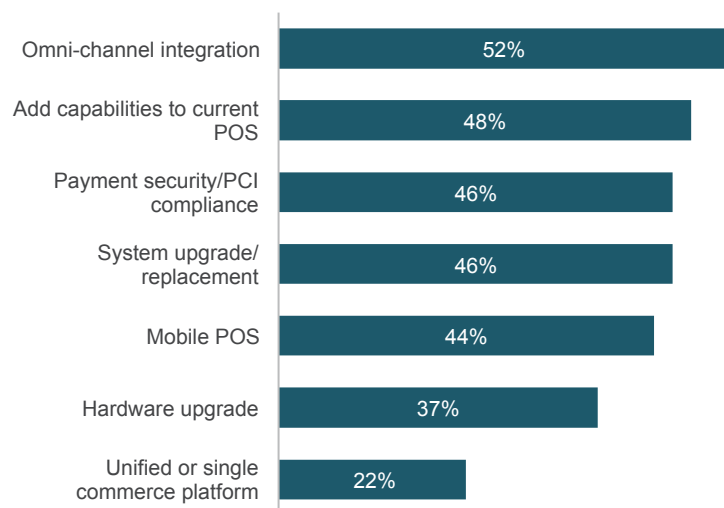
Engaging the customer to enhance the shopping experience through personalization and relevance is the key to winning and keeping customers, and a unified commerce platform, along with real-time retail, is the solution to support this seamless customer experience.

Customers have the ability to search and compare products, promotions, rewards and prices online, read customer reviews and get instant feedback from their circle of friends via social media. This transparency makes the retailer's job more difficult as they can no longer differentiate on just product or price. In most cases, the customer experience is the key differentiator for a brand and it's what drives customer loyalty. Ever increasing customer expectations, retail transparency and today's anywhere, anytime, anyhow shopping have put the customer experience center stage for most retailers.

Working towards a seamless customer experience across channels is the focus of most retailers as they look at their point of sale (POS) priorities for the next year. Retailers' priorities this year follow closely last year's priorities with omni-channel integration and adding capabilities to current POS as the top two priorities (**Exhibit 1**).

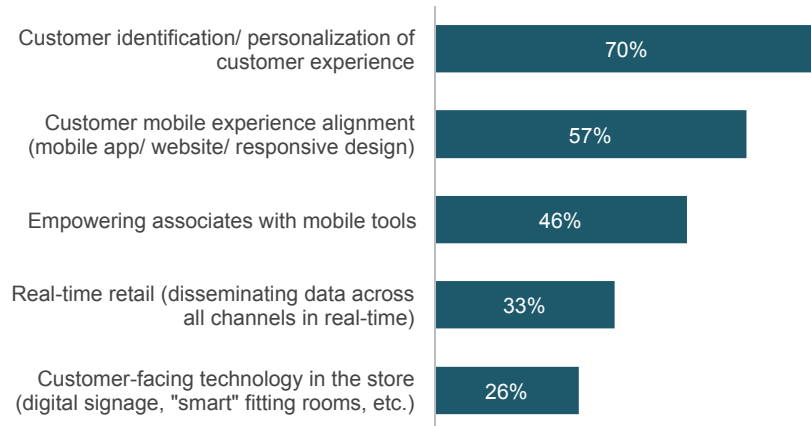
Customer expectations have been reshaped by the digital retail experience. Customers receive personalized offers and recommendations when shopping online or via mobile that they don't tend to receive when they shop in a store. This is an area of opportunity for retailers as digital and physical retail converge and the key to personalizing the experience is identification of the customer as soon as they enter the store. **70% of retailers indicate customer identification is their top customer engagement priority**, this is up from 62% last year (**Exhibit 2**).

Exhibit 1
Top POS Priorities for 2017



Other top priorities are focused on providing associates with the information they need to personalize the shopping experience. Empowering associates with mobile tools to access customer information based on their previous purchases and/or preferences is important to engage the customer. To effectively provide guided selling services, the sales associate needs up-to-date and readily available customer and product information – this is real-time retail.

Exhibit 2
Top Customer Engagement Priorities for 2017



Personal

Today's informed consumer researches products and shops anywhere and anytime and she expects a personalized experience wherever she shops.

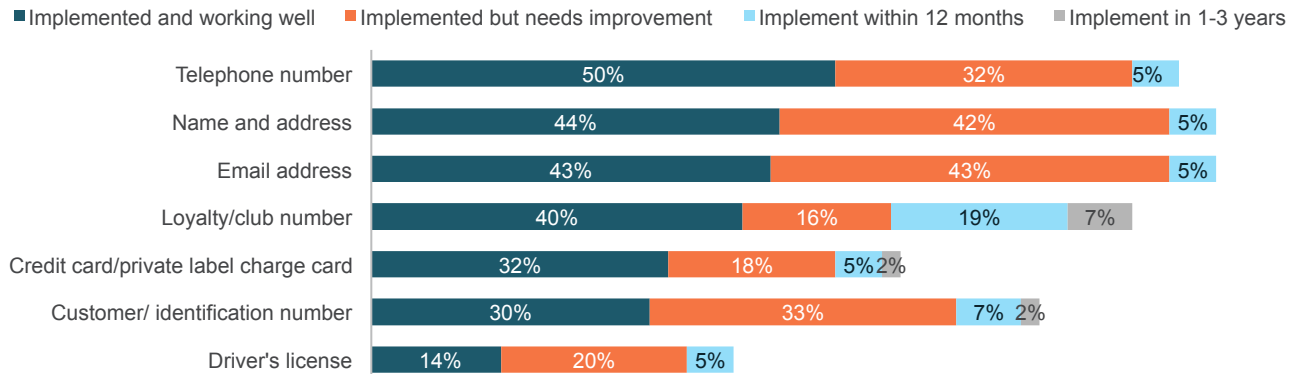
In many cases, the physical store is falling short of meeting customer expectations for personalization. Customer expectations have been reshaped by the digital retail experience. As consumers “check-in” on retailers’ e-commerce and mobile sites, they automatically receive personalized offers and recommendations based on their purchase and browsing history. However, most shoppers are still anonymous when shopping in a physical store so they don’t get the same level of personalized service. This is an area of opportunity for retailers as digital and physical retail converge and the key to personalizing the experience is identification of the customer as soon as they enter the store.

Unfortunately, many retailers currently are still playing “catch-up” by providing their associates with at least the same information and technology that the customer possesses. Putting mobile devices in the hands of store associates enables inventory look-up (enterprise-wide), even for products not immediately available or from external vendor inventories. It also empowers associates with information to offer enhanced customer assistance and even process a transaction anywhere in the store. With mobile devices, associates are free from the constraints of the checkout counter, which enables interaction with customers anywhere in the store.

Clienteling and guided selling are an important part of the personal equation to enhance the shopping experience. Clienteling empowers store associates to leverage customer data (purchase history, personal information, preferences, etc.) and deliver highly personalized customer engagement, provide exceptional in-store shopping experiences, and timely follow-up communication with customers. To be effective, guided selling and any other customer engagement tactics can’t operate with yesterday’s information – they need real-time data, context and analytics.

For traditional customer identification, utilizing a telephone number remains the top method of customer identification, increasing from 70% of retailers last year to 82% this year. However, many retailers are not satisfied with this method of identification (**Exhibit 3**).

Exhibit 3 Traditional Methods of Customer Identification



We are seeing some changes over the last few years in customer identification, as in-store technologies combined with a customer's mobile device become more prevalent. When we asked the question last year about utilizing newer technologies to identify customers in the store, most retailers responded that they still use 'traditional methods' which entail the customer providing information at the point of checkout.

This year, however, we are seeing significant progress and interest in newer technology methods utilized in tandem with the customer's mobile phone to identify customers when they enter the store. The most prevalent technologies that retailers are currently using to identify customers are Wi-Fi (43%) and mobile Websites (40%), however more than half of the retailers using these technologies indicated that they need improvement (**Exhibit 4**).

The big story in customer identification really lies in the plans that most retailers have to implement these technologies. Within three years, 75% of retailers plan to use Wi-Fi and 71% plan to use mobile apps to identify customers in their stores. Another interesting point is that there does not seem to be one technology choice that is 'winning' – retailers are embracing a number of different technologies to cast a wide net and identify and track as many customers as possible as soon as they enter the store.

Customer identification is critical, however, in most cases it is still happening at the point of checkout, which is too late to empower the associate to influence the current purchase decision. Without early identification of the customer, retailers can miss critical engagement opportunities,

Exhibit 4 Customer Identification via Mobile Device

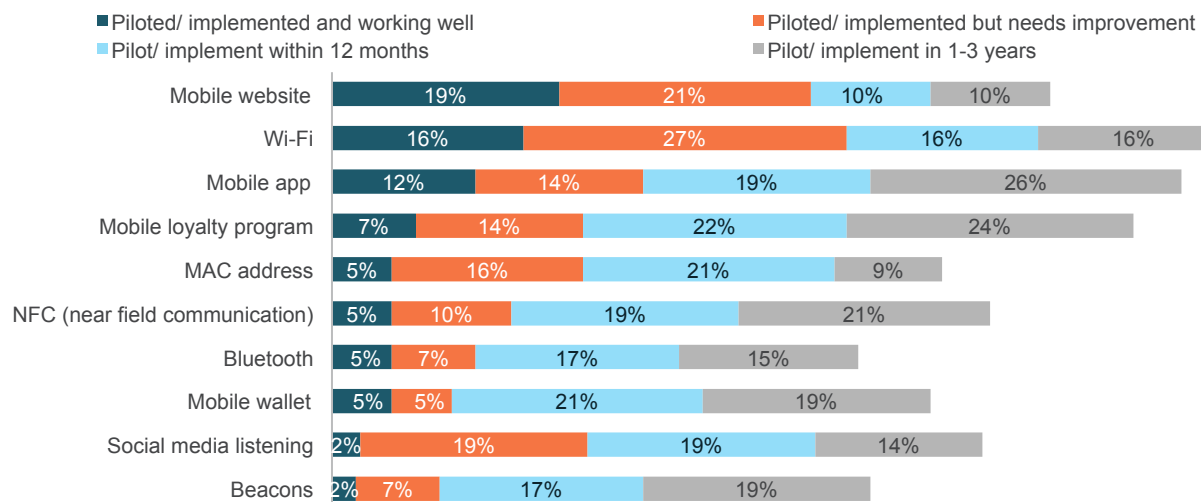
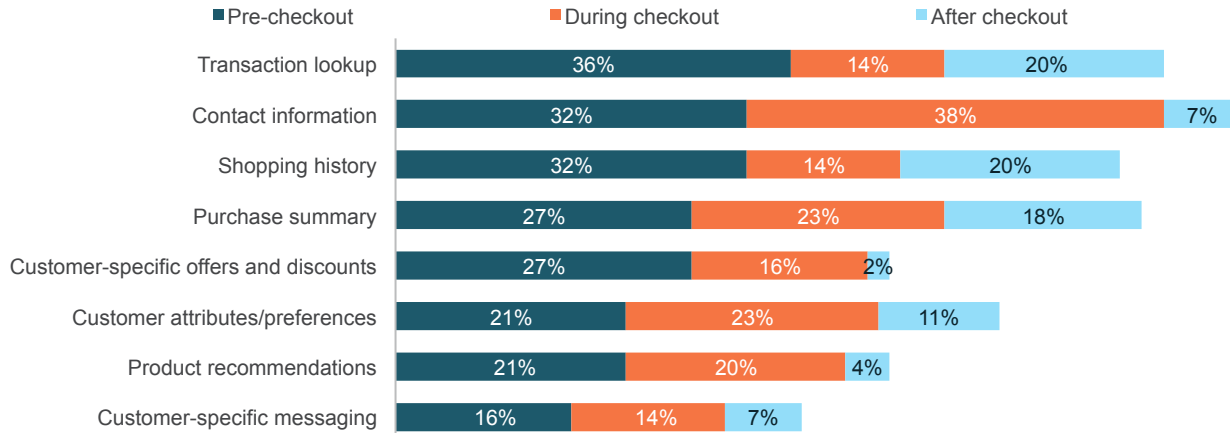


Exhibit 5
Customer Information Availability



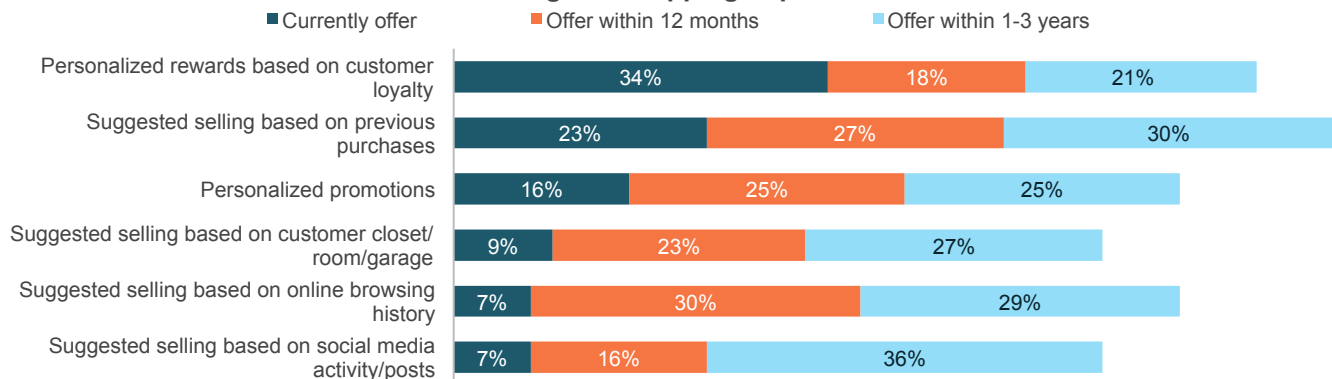
such as clienteling and guided selling, that can increase sales and deliver a better customer experience.

Once identified, retailers can personalize the shopping experience based on customer context. Customer context is the interrelated factors of customer insights and environmental conditions that make the shopping experience relevant. It enables retailers to personalize the shopping experience based on preferences, purchase history, their closet, their most recent online browsing history, time of day, weather and their physical location – all based on real-time information.

Overall, there is a positive trend in retailers' ability to access more customer information prior to checkout (**Exhibit 5**). The ability to look up a previous customer transaction increased from 20% last year to 36% this year, contact information availability increased from 22% to 32% and shopping history increased from 16% to 32%. This suggests that some retailers understand the missed opportunities that happen if associates can't access customer data until the customer is at the checkout. With customer data available pre-checkout, associates can increase sales by personalizing promotions and offering product suggestions to customers. The unfortunate point is that 79% of retailers are currently not providing customer attributes/preferences and product recommendations to associates pre-checkout so they can influence the sale – the missed sales opportunities are significant!

Delving deeper into how associates are able to tailor the customer's shopping experience based on available information uncovers that the capabilities are still limited but increasing (**Exhibit 6**). This is where we see significant engagement opportunities, but first retailers must have unified commerce platforms in place that enable real-time visibility and access to customer information, inventory,

Exhibit 6
Tailoring the Shopping Experience



product and pricing. Integrating all of this customer and product information to a clienteling solution and upfront customer identification is what will make these capabilities a reality in the store.

The most prevalent customer personalization capabilities involve offering personalized rewards based on customer loyalty and suggested selling based on previous purchases – both up significantly over last year. Last year, 14% of the retailers offered personalized rewards based on customer loyalty while this year 34% offer it. Suggested selling based on previous purchases also increased from 14% last year to 23% this year. Last year the big story was that retailers were planning to increase personalization of the shopping experience with more than 50% of retailers planning to offer personalization within three years. Obviously, retailers were focused on personalization in the past year, which bodes well for the customer.



Mobile

Having a constant, virtually unlimited array of information at our fingertips through mobile devices has changed the shopping experience and elevated customer expectations for customer service.

Consumers use their phones to research products, compare prices, complete purchases online and increasingly, to pay for in-store purchases. The proliferation of tablets and mobile phones also offers new opportunities for retailers to enhance customer service. Mobile point of sale (POS) enables associates to complete a customer's purchase on the sales floor at the moment the buying decision is made. It also frees the associate from the checkout area to allow for more personal interactions on the sales floor and simplifies the checkout process by eliminating the need to wait in line.

In the next two years, the use of tablets, hybrid POS terminals and mobile devices will increase tremendously along with a slight decrease in the use of traditional POS terminals (**Exhibit 7**). This is consistent with the trends we are seeing in the industry. Mobile POS lowers the overall cost of ownership by eliminating or minimizing the need for "big iron" (a thick-client cash register) at store-level and virtually eliminating annual hardware maintenance fees, as most units are disposable.

As further confirmation of retailers' plans to focus on mobile devices, this year 49% of retailers are using mobile solutions for associates, which is significantly more than the 31% last year. However

Exhibit 7
POS Hardware Plans by 2019

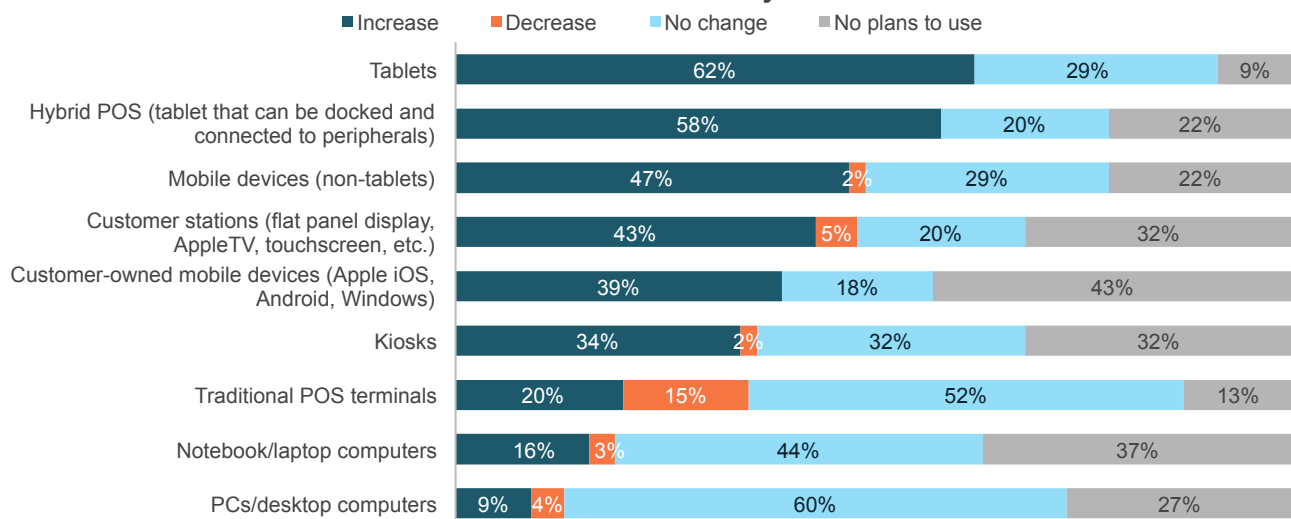
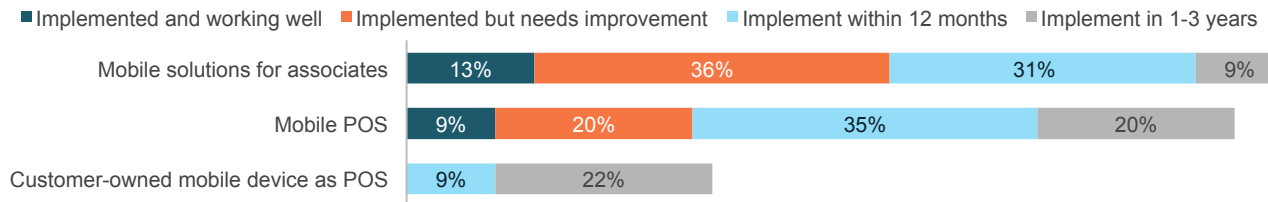


Exhibit 8 Implementation Status



most of those retailers indicate improvement is needed with these mobile solutions (**Exhibit 8**). Mobile POS usage has also increased to 29% this year compared to 20% last year although a majority still indicates that improvement is needed.

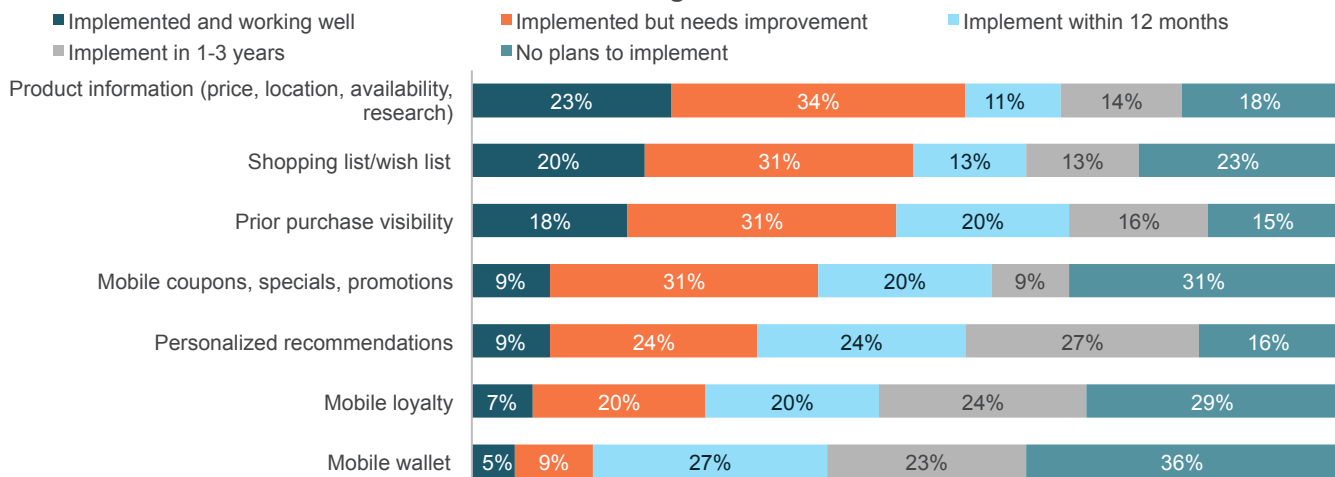
For most retailers, mobile POS has not become a substitute for a traditional fixed station POS. The majority of retailers continue to use traditional POS stations as their basic POS, adding mobile options and additional PCs or tablets as supplements. The transition from fixed station POS to a hybrid environment and more mobile solutions is underway but it is a slow process.

The proliferation of tablets and mobile phones is only the beginning. Internet-powered personal devices – ‘wearables’ – are now available to the masses and will likely strengthen the case for utilizing customer-owned mobile devices as POS. The future will likely see new and exciting ways that customers will utilize ‘wearables,’ which will shape their expectations and experience.

Utilizing customer-facing technology is a natural outcome from the proliferation of mobile devices and is a big part of the overall customer experience. As customers become more comfortable and proficient with utilizing mobile technology and researching information on their own, retailers need to offer expanded customer-facing mobile services to enhance the shopping experience.

The good news is that retailers are increasingly implementing customer-facing mobile services such as product information, shopping list capabilities, and personalized recommendations via mobile devices. The bad news is that there are still issues with how well these processes are working. In all cases, the ‘implemented but needs improvement’ category is larger than the ‘implemented and working well’ category, which likely indicates that the processes currently in place have been manually pieced together or rushed to production before they were fully tested and perfected (**Exhibit 9**). We expect this to improve as retailers embrace unified commerce and work on implementing a common commerce platform with real-time capabilities.

Exhibit 9 Customer-Facing Mobile Services



In many cases, these customer-facing mobile services are the same ones that retailers look to deploy to associates. Another benefit of unified commerce is that these capabilities or services can be built once and then deployed across various different use cases and clients, whether customer-facing or associate-facing.



Seamless

Real-time retail is the ability to deliver a seamless and personalized experience to the customer whenever, wherever and however she chooses to shop.

Real-time retail, through unified commerce, enables retailers to identify the customer and gather, analyze and disseminate customer, product, pricing, and inventory data across all channels – instantly. Consumers expect a seamless experience in the store, on the Web and via their mobile device - making real-time retail the new industry imperative.

Retailers are increasingly turning to a common, unified platform to deliver consistent, relevant shopping experiences across all channels. This centralizes data storage and application integration and allows easier real-time access to information across the ecosystem (stores, distribution centers, suppliers, etc.).

Currently, 9% of the retailers surveyed currently offer a single commerce platform with 62% planning to implement within one within three years (Exhibit 10).

As retailers and solution providers look for ways to accelerate the path to unified commerce, more and more capabilities are being centralized or offered as cloud-based services. Retailers are embracing this move to the cloud as they realize that it is key to accelerating their path to a unified commerce platform that is integrated, scalable and flexible to support evolving business needs. Further bolstering the move to the cloud is the availability of much more sophisticated networking technology. With today's network technology, retailers can truly achieve 100% uptime – removing the last perceived hurdle to moving away from decentralized commerce solutions that have been the norm for decades.

Cloud computing, either off or on-premise, offers the quickest and surest path to seamlessly connect all e-commerce, mobile commerce and in-store POS transactions to order management, inventory, marketing, financials, supply chain and customer service.

Many of the retailers surveyed are making a shift to the cloud over the next two years as a means of

CLOUD COMPUTING DEFINITIONS

Public cloud: Applications and/or data are stored on shared servers at third-party providers that supply cloud solutions to many clients.

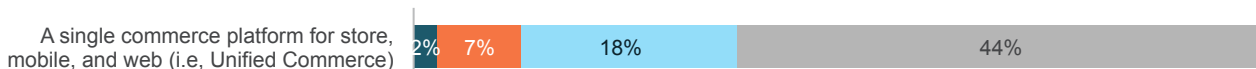
Private cloud: A cloud infrastructure operated solely for an individual organization. It can be managed by the organization or by a third party and may exist on or off premises.

Hybrid cloud: A cloud infrastructure composed of more than one cloud (private or public) that are bound together by standardized technology to enable data and application portability.

Exhibit 10

Unified Commerce Implementation Status

■ Implemented and working well ■ Implemented but needs improvement ■ Implement within 12 months ■ Implement in 1-3 years



A single commerce platform for store, mobile, and web (i.e., Unified Commerce)

centralizing their store systems **(Exhibit 11)**. Within two years, 60% of retailers plan to have centralized or cloud-based POS, up from 36% today. Retailers are recognizing the value of centralizing applications in the cloud: speed of deployment, faster software updates, lower software costs and a real-time, single version of the truth.

Many retailers have started down an omni-channel path by offering services that emulate the seamless holistic shopping experience that the customer expects, but in most cases the method is manual and involves complex integration across multiple systems and processes, and often doesn't work very well in real-time.

This year we have seen a sizeable increase in offering cross-channel and fulfillment services such as inventory visibility across channels and the ability for customers to buy online and pick up in the store **(Exhibit 12 and 13)**. In all cases, not only have the services increased since last year, but even better news, the ratio of working well to needs improvement has increased. More retailers have implemented additional services to offer customers the cross-channel experience they want, and retailers have worked on improving these services to ensure greater customer satisfaction and efficiencies within the organization.

Real-time visibility and access to product and customer information is critical to effectively execute cross channel fulfillment services. Without real-time data, information provided internally and externally is out-of-date and, therefore, risks being inaccurate and out of context.

Exhibit 11
Centralization of Store Systems

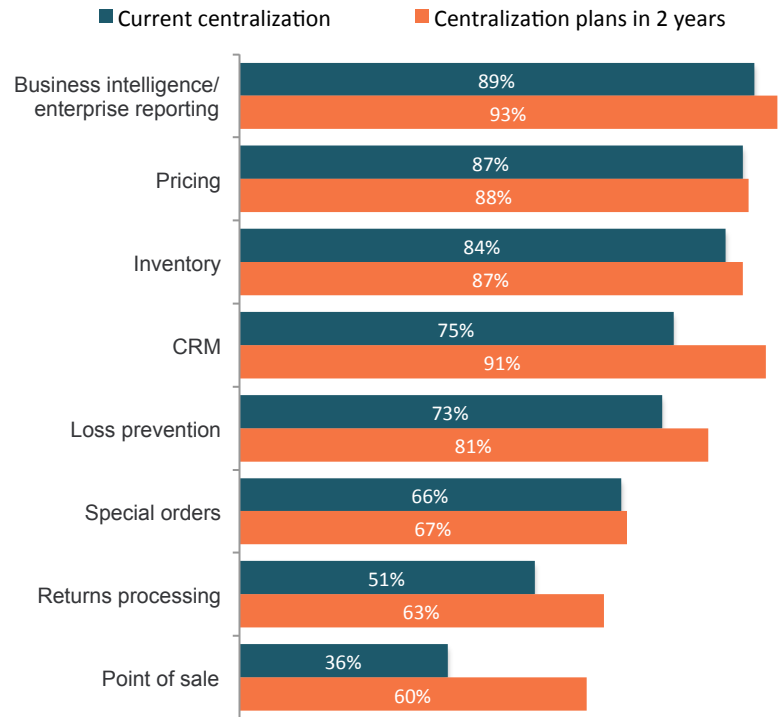


Exhibit 12
Cross-Channel Services

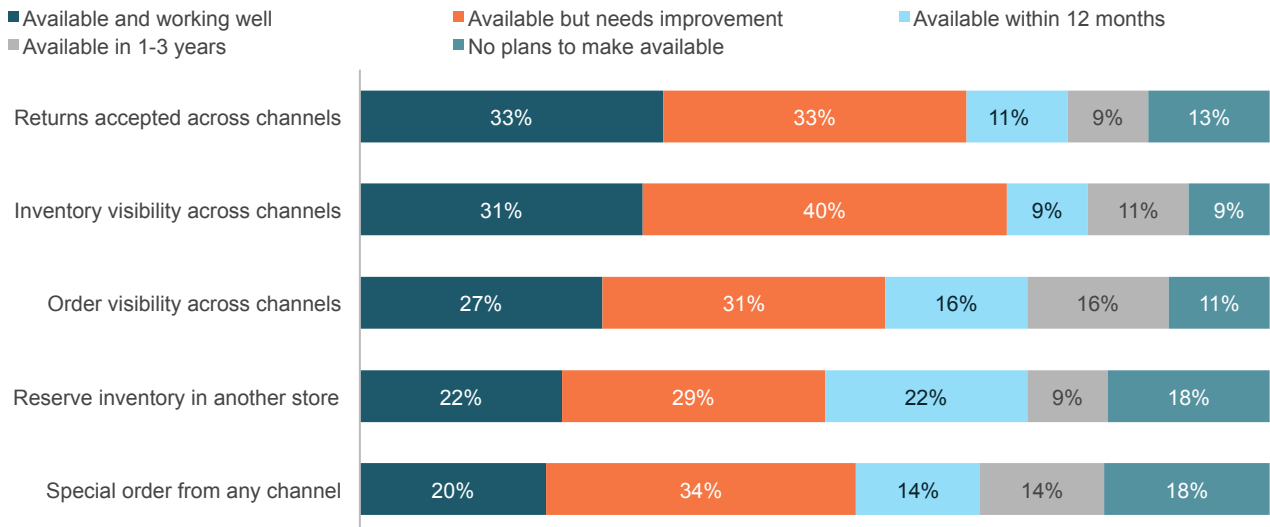
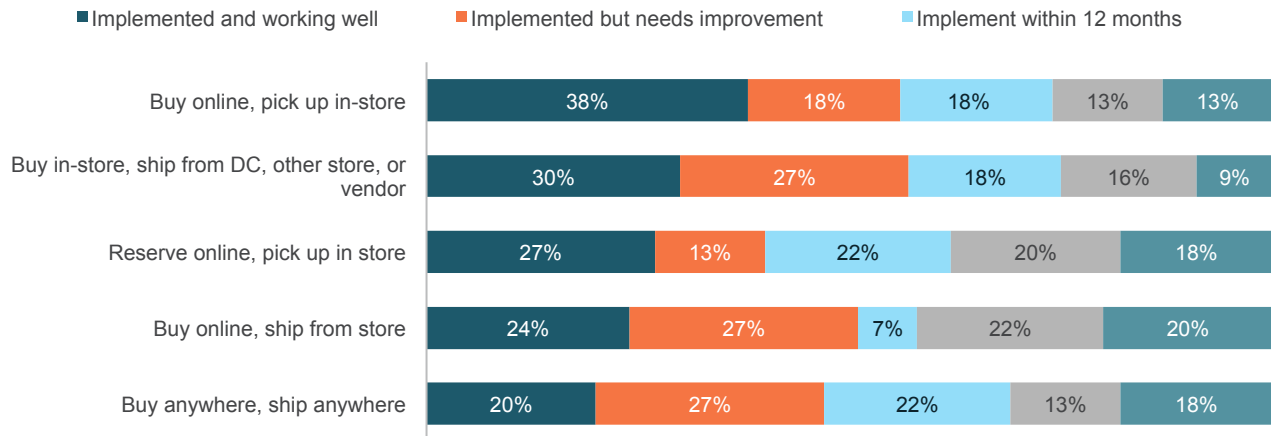


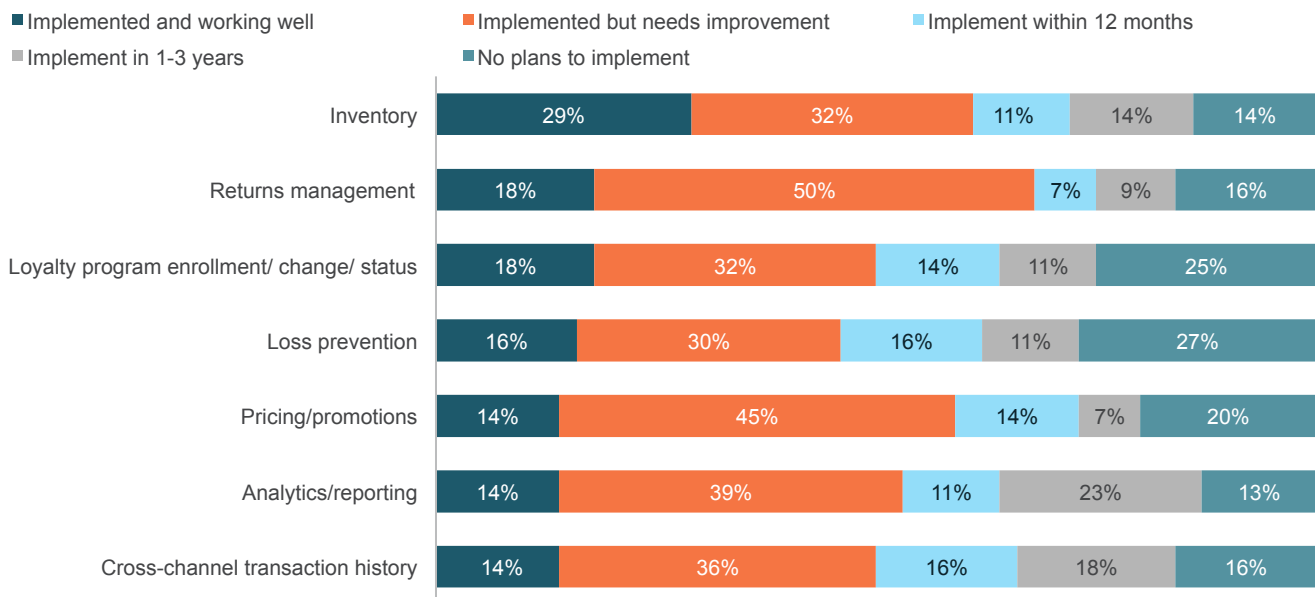
Exhibit 13
Fulfillment Services



It is still very challenging for retailers to effectively execute real-time retail. More than half of retailers can access inventory, returns management promotions and analytics in real-time but most of the processes still need improvement (**Exhibit 14**). It looks like retailers have made some progress in improving real-time inventory information availability with 18% last year stating it works well and 29% this year stating the same. The other category with some movement is loyalty program status with an increase from 12% to 18% of those programs working well.

Overall, the 'needs improvement' numbers have decreased some since last year and it seems that retailers are focused on providing real-time product and customer information and will work on the other areas once these have stabilized. Unfortunately, these processes are likely pieced together from disparate systems and retailers will need a common commerce platform as the foundation to be able to effectively monitor, access and analyze real-time information seamlessly.

Exhibit 14
Enterprise-wide Real-time Features





Secure

Today's retail environment requires security beyond retailers' current focus on payments and networks.

As retailers seek new ways to provide relevant information and experiences, like product recommendations via digital screens in the dressing rooms or facial recognition alerting an associate to a shopper's arrival, they must understand the impact on customer relationships. There is a fine line between clever personalization and concern over personal data.

While more information offers a more personalized experience, it also provides a greater opportunity for data theft and fraud. Retailers need to establish security policies that ensure the data privacy of their customers' information. Consumers want retailers to understand them as individuals – not put their personal information at risk.

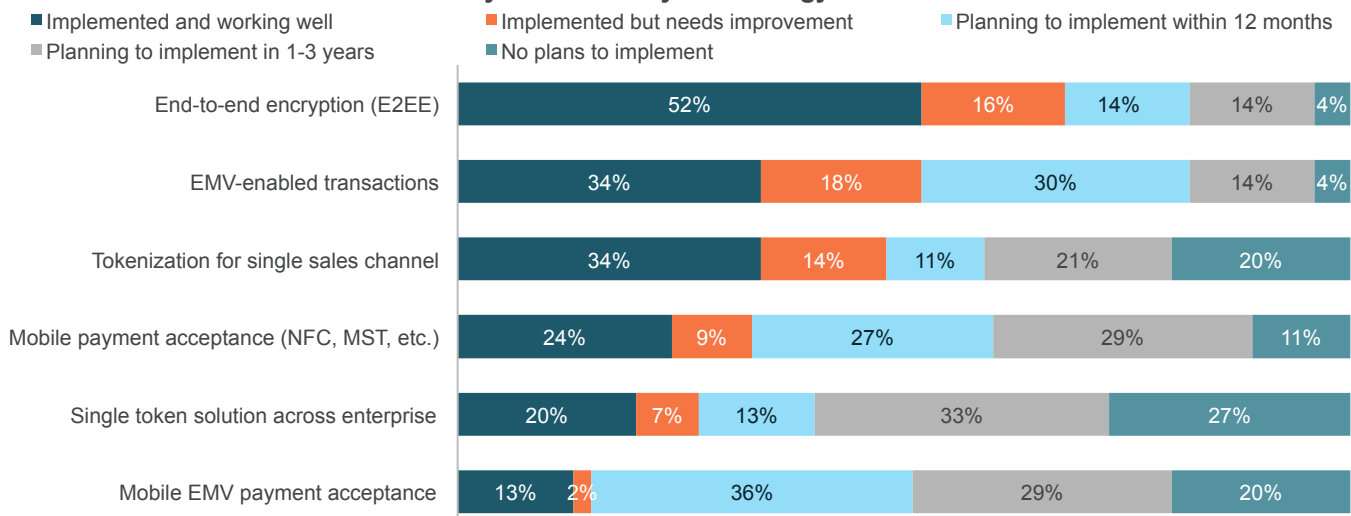
A secure environment becomes even more critical in this data-intensive world, as customers must have peace of mind that their data will not be stolen or misused.

While the liability shift associated with EMV (Europay, MasterCard and Visa) occurred in October 2015, many retailers are still working towards providing enabled EMV-capable transactions. Last year, just after the liability shift deadline, 22% of the retailers surveyed indicated that they supported EMV-based transactions while this year the number has increased dramatically to 52% supporting these transactions (**Exhibit 15**). While the dramatic increase is good news, it still indicates that nearly half of the retailers surveyed are not able to offer an EMV-enabled transaction.

In the store environment, many retailers (and customers) have realized that the average EMV-enabled transaction takes longer than a non-EMV transaction due to the processing times. In many physical stores this is a costly issue because it requires more checkout lanes and more staff to keep customer wait times manageable.

There are also online repercussions as the enhanced security of transactions in the store has forced fraudsters to look elsewhere for easy targets. Most retailers are seeing significant increases in "card not present" transaction fraud and are spending time and energy trying to increase the sophistication of their online fraud protection and analytics.

Exhibit 15
Payment Security Technology Plans



EMV doesn't really offer data security functionality, however, it is usually included in the same security upgrade projects because it involves the same partners, programs and hardware as the first line of defense, which is end-to-end encryption (E2EE). E2EE has increased significantly over the past year with a reported 68% of retailers utilizing it – up from 49% last year. E2EE prevents third parties from accessing data throughout the system because only the authorizing parties have access to the encryption keys.

The next protective layer involves tokenization, which enables retailers to remove sensitive information from the network by substituting payment card data with a token which is used as an identifier but has no exploitable value or meaning. 27% of the respondents have implemented a single token solution across the enterprise, up from 20% last year. This technology is also critical to offering customers a single unified commerce experience for returns, customer profiles and saved shopping carts retrieved across channels.

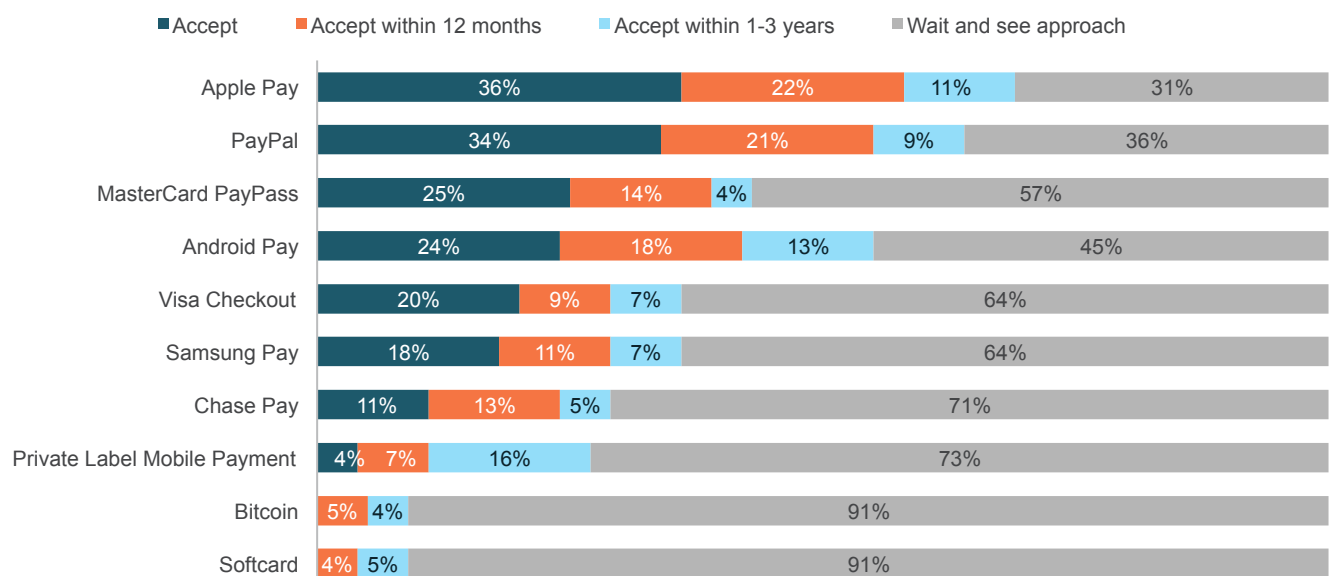
Payment security will remain a concern for retailers for the foreseeable future. Most of the retailers involved in our survey reported moving towards a security plan with multiple layers to protect sensitive customer and organization data.

Mobile payments enable customers to make purchases without their wallet (but with their ubiquitous smartphone) and provide an additional level of security that isn't available with credit cards, even EMV-enabled cards. Mobile payments in stores use tokenization so that the retailer never actually has the customer's card number, which significantly reduces the security risk.

There are a multitude of mobile wallets and payment apps on the market today, and the arena keeps changing. In the past year, we have seen the demise of the merchant-backed CurrentC and the rise of Walmart Pay. While adoption had generally been slow, this year we saw a big jump in adoption of some of these mobile payment options. This is yet another way to personalize and enhance the customer shopping experience by bundling loyalty and other features with a branded mobile payment app.

PayPal has been bumped out of its top spot in this year's survey with Apple Pay now being accepted at 36% of the retailers participating in the survey. This is up significantly from 16% last year and signals a growing acceptance by retailers and customers (**Exhibit 16**). This year fewer retailers are

Exhibit 16
Alternative Payment Types



adopting a wait and see approach for Apple Pay and PayPal – likely because of the growing support from the payment software ecosystem and the acceptance for these mobile payments by the public. One of the critical factors for any mobile payment success going forward is education. We have found repeatedly that not only are consumers unsure of how and when mobile payments can be used, but even more telling, associates are unsure. For mobile payments – or mobile wallets – to succeed, there must be further education at the point of sale to ensure that a transaction using a mobile device is not longer or more complicated than traditional payments methods for either the customer or associate. The other critical factor is explaining the value of tying mobile wallets to loyalty rewards programs. Customers need to feel that utilizing mobile payments enhances the shopping experience and that they are being rewarded for the experience – this will enable a win-win experience for retailers and customers.

While the pros and cons of each of these payment types – and future payment types – can be debated, what is most apparent is the number of retailers who are adopting a wait and see approach for the emerging payment platforms.



A Unified Commerce Platform

A common technology platform is key to enabling real-time visibility and one version of the truth – which are requirements for unified commerce.

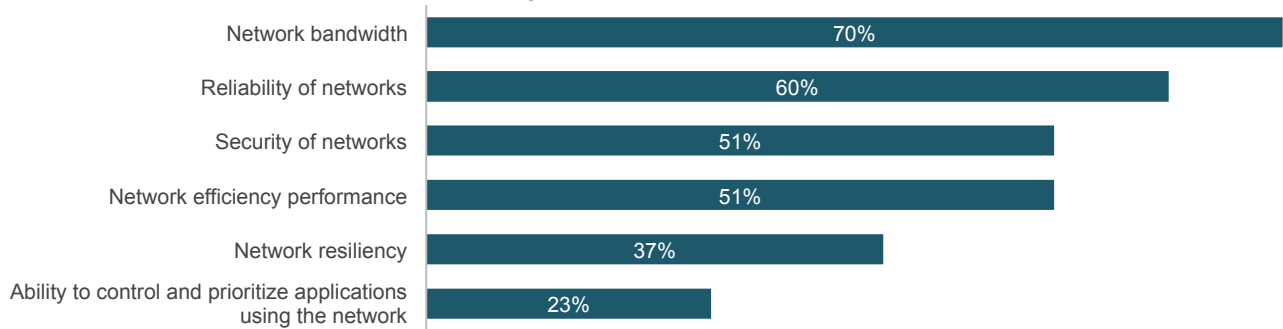
Unified commerce goes beyond omni-channel, putting the customer experience first, breaking down the walls between internal channel silos and leveraging a common commerce platform. A common, centralized, real-time platform for all customer engagement points is a key tenet of unified commerce. A unified commerce platform is not simply the future in-store or Web platform, but combines in-store POS, mobile, Web, order management, call center and clienteling into one integrated platform. It has become the new retail imperative.

A common commerce platform provides a single version of the truth across all channels to enable real-time visibility and availability of accurate inventory and customer information. Unified commerce, with a common commerce platform, supports all customer touch points and channels – this eliminates integration issues and supports real-time visibility, enabling an enterprise-wide, unified view of the customer, inventory, fulfillment, etc. To architect the optimum foundation, there are three major components of a unified commerce platform: networks, service-oriented architecture and order management.

Networks – The network is a critical element of the technology platform – providing connectivity, security and reliability. Today’s networks are robust, fast, reliable and resilient, which is key to supporting a common commerce platform across channels. As retailers are deploying more applications in the cloud, the new norm has become hybrid cloud environments, with a mix of private and public cloud-based services. This is where the network plays a central role in the future of unified commerce platforms. A robust, well-architected and properly managed network solution is imperative for unified commerce success in the cloud.

Bandwidth is the top network priority for 70% of retailers (**Exhibit 17**). Today’s always connected customer puts additional pressure on retailers to ensure that they can provide a reliable high-speed network to support the shopping environment. Many existing store networks do not have the capability to support current and future store infrastructures; therefore, it is not surprising that this is a main focus.

**Exhibit 17
Top Network Priorities**

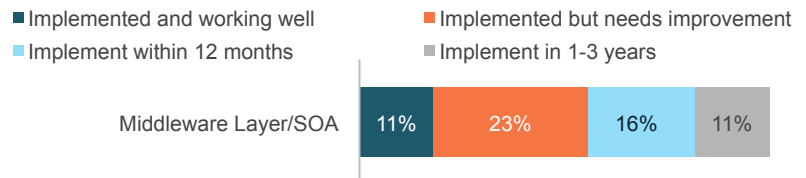


Service-Oriented Architecture – A robust middleware layer, or service-oriented architecture (SOA), is essential in effectively enabling real-time capabilities and uniting various retail systems to deliver unified commerce. Many customer interactions or retail transactions require data from various retail systems to be gathered, analyzed and disseminated in real-time. Therefore, every customer or associate transaction traverses the middleware layer, which brings the commerce platform to life.

Middleware/SOA layer implementations have increased from 18% total implemented last year to 34% implemented this year, although there is still much improvement needed (**Exhibit 18**).

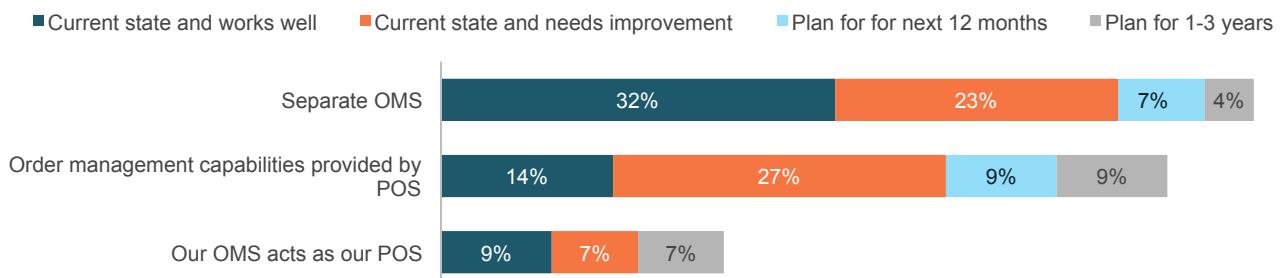
Order Management – Central to unified commerce is an order management system (OMS) designed to manage orders across all channels, including a POS user interface, complex fulfillment options and inventory in real-time. With significant advancements in order management systems, there is a convergence of OMS with traditional POS. More retailers are evolving to a single (unified) order management system to support all channels (**Exhibit 19**).

**Exhibit 18
Implementation Status**



While retailers understand the importance of moving to a unified commerce model, it can be a daunting project when considering the scope of a commerce platform that enables and supports every customer touch point – and in real-time. An additional complexity is the rapidly evolving solution landscape, as software vendors look to best position their solutions for unified commerce. Throughout this evolution, more capabilities are being moved out of point solutions like POS and

**Exhibit 19
POS/OMS Capabilities**



being centralized, or in many cases, enabled as cloud-based services. Retailers are embracing this move to centralized data as they realize that it is key to accelerating their path to a unified commerce platform that is integrated, scalable and flexible to support evolving business needs.

Given the move to the cloud for unified commerce and a growing preference by retailers for utility-based, as-a-service solutions, we see the next step in this evolution is “Unified Commerce-as-a-Service.” This is a real opportunity for retailers to accelerate their unified commerce journey with a one-stop-service, complete with hardware, infrastructure, applications, implementation and maintenance services. This bundled, all-inclusive approach can simplify and accelerate retailers’ path to achieving a unified commerce platform.

Current State of POS

The right technology foundation is essential to support the customer experience across channels.

With an increased focus on customer engagement and a convergence of the physical and digital retail worlds, POS and supporting technology play a critical role in shaping the customer shopping experience. With continuous changes in new technology, a POS system that is only a few years old may already be obsolete.

Retailers are looking to refresh their hardware with the latest offerings to take advantage of faster processor chips and larger storage needed to efficiently run more advanced software. Over the past two years, many retailers have upgraded or added mobile devices and almost all mobile POS devices are less than 5 years old (**Exhibit 20**). Mobile device usage continues to grow, but at a slower rate than projected in prior surveys. It appears to be tied to the trend of retailers replacing a portion of their current devices with mobile devices when they perform a hardware refresh. It is also partially driven by retailers realizing the shorter life cycle for mobile devices compared to traditional stationary POS terminals. Another contributing factor may be retailers putting mobile strategies on the back burner over the last year as they focused their attention on improving payment security.

According to this year’s survey, 22% of retailers are planning to keep their current mobile devices as a POS in use for more than five years, which similar to the response in last year’s survey. This seems a little unrealistic, considering the speed of technology change and the wear and tear on

Exhibit 20
Current Age

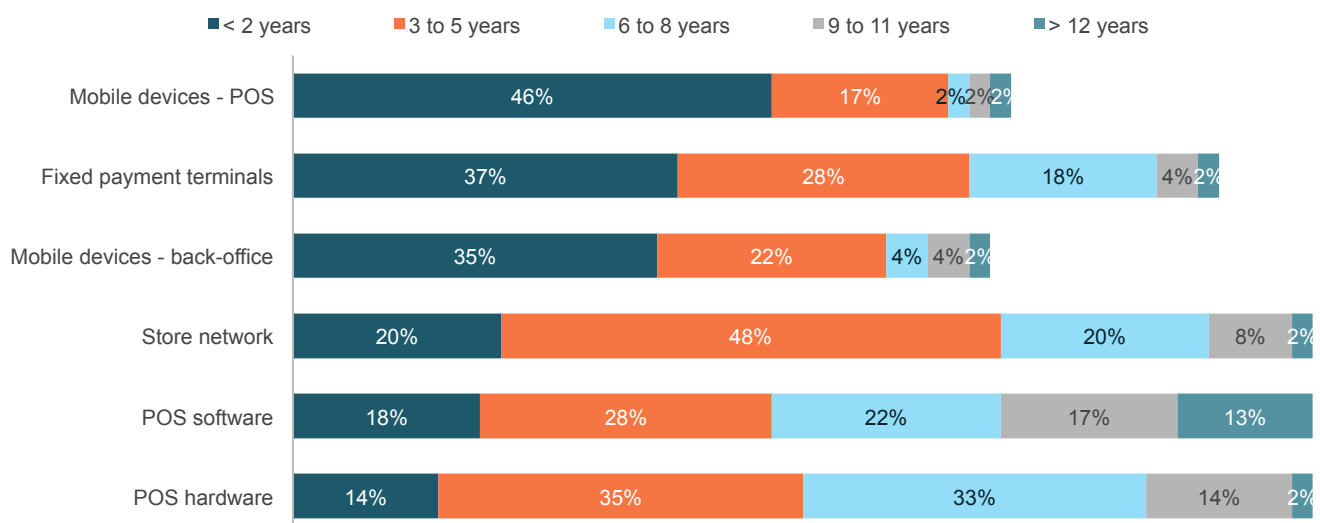
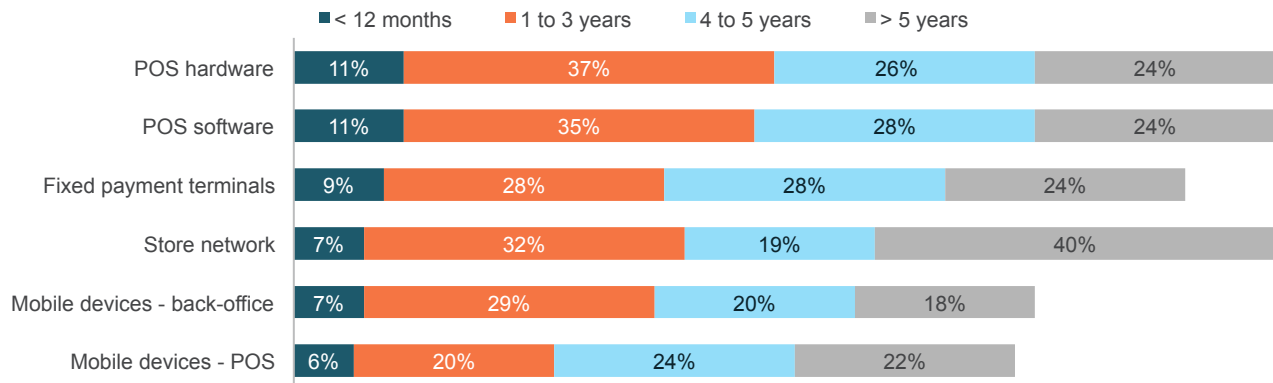


Exhibit 21
Planned Replacement Timeframe

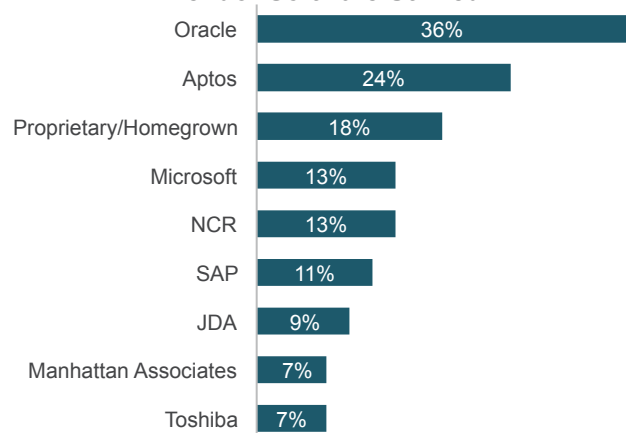


mobile devices is much greater on mobile than on stationary devices (**Exhibit 21**).

Retailers realize that POS software should be replaced regularly to take advantage of better, faster and more reliable technology. However, budgetary constraints and the complexity of a POS replacement project drives the age up, with 50% of retailers reporting POS software and hardware that is more than five years old. Retailers are planning some big upgrades in the next three years with nearly half of the retailers surveyed planning to replace their current POS software and hardware.

As retailers focus on engaging the customer and enhancing the in-store experience, choosing and utilizing the right software is important. As we have seen over the life of this survey, the POS software market is fragmented with several players with small pieces of the pie. With its recent acquisitions, Oracle currently holds the top spot with 36% of our respondents indicating they utilize point of sale software that falls under the Oracle umbrella. The number of retailers utilizing a proprietary/homegrown system has remained relatively constant over the last few surveys (**Exhibit 22**). We expect this mix to change as the solution marketplace for unified commerce evolves and matures.

Exhibit 22
Vendor Software Utilized



The Store of the Future

The physical store is the foundation of retail; however, we are on the cusp of significant and fundamental transformation in the store environment.

Stores must now encompass both worlds - the sensory experience generally available in the physical world, such as touching and feeling merchandise and personally interacting with a knowledgeable associate, married with the unique and personalized shopping experience common in the digital world. The physical and digital worlds will be forever intertwined as we look to the future.

The physical store is still the central point of shopping. However, the role of the store is quickly changing. The advent of the digital world offers consumers new ways and 'places' to research and

shop. These digital possibilities, along with mobility, have modified consumer expectations and behaviors, and retailers must transform to succeed.

While e-commerce and mobile continue to grow and garner attention, the store remains a key component of the customer’s overall brand experience. In fact, even pure-play e-commerce brands realize the value of stores, as demonstrated by Amazon’s pop-up stores and its announcement of Amazon Go.

We asked retailers about their store plans to understand what types of stores are gaining traction. While retailers are still opening traditional brick-and-mortar stores they are also looking at other options to have a store presence with pop-ups and store-within-a-store concepts (**Exhibit 23**).

As a means of increasing inventory options for customers, retailers realize that their brick-and-mortar locations can sell products without actually carrying the inventory within the stores. Rather than sourcing and warehousing large levels of inventory for each store, they can provide stores access to virtual inventory, which keeps customers in the store and away from the competition. As we saw in the retailers’ future store plans graph, 17% of retailers are increasing their number of showrooms, which ties together with the 46% who currently utilize virtual inventory and another 34% planning to implement within three years. The number of retailers using virtual inventory has continuously increased over the last three years, up from 33% in 2015 (**Exhibit 24**).

A majority of retailers plan to offer electronic receipts with personalized suggestions for their customers. The use of personalized receipts has increased from 26% of retailers offering them last year to 34% this year. Another 48% of retailers have placed this on the roadmap for implementation within the next three years. Offering customers an electronic receipt after a purchase in a brick-and-mortar store gives them the peace of mind that they’ll have a copy that won’t get lost by the time

Exhibit 23
Future Store Plans

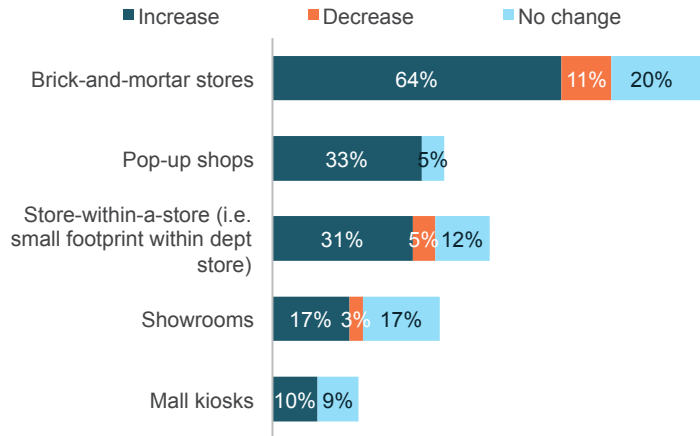
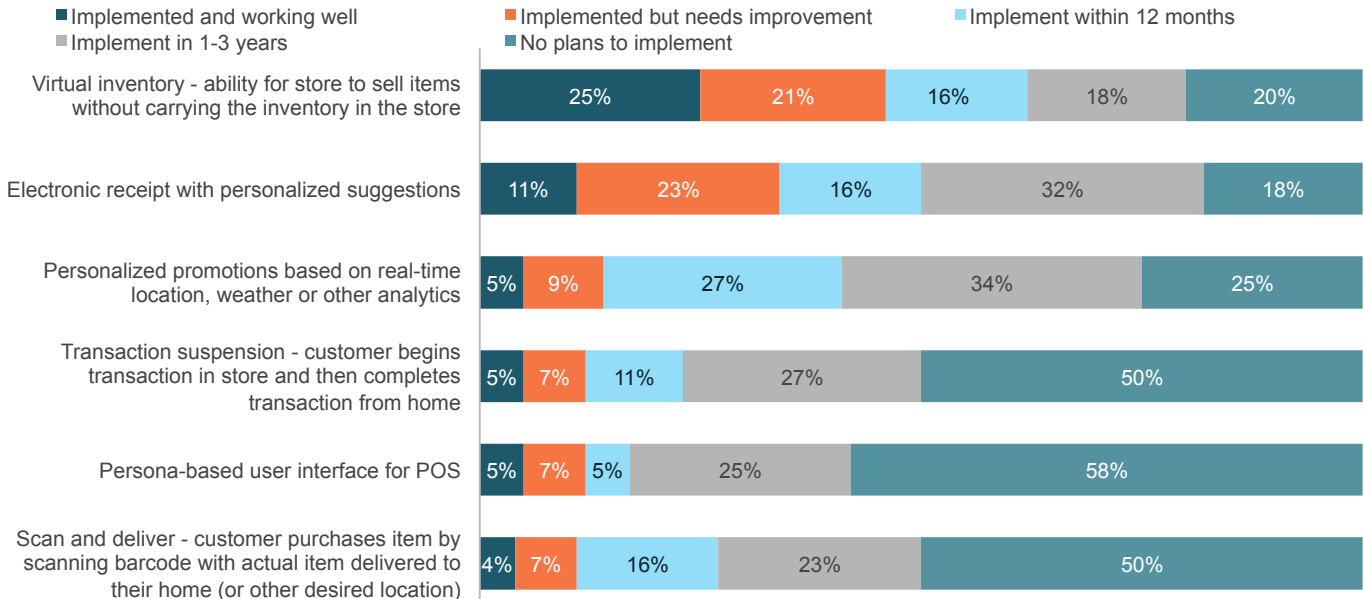


Exhibit 24

Potential Customer Services



they get home. In addition, retailers can use electronic receipts as a means for suggested selling by offering recommendations for potential purchases based on what they have already purchased, elevating the customer's current and future shopping experience.

Offering customers personalized promotions based on customer context is the future of the store environment and it is gaining traction with 14% having implemented and another 61% planning to implement this capability in the next three years.

Disruptive technologies such as artificial intelligence, virtual reality and the Internet of Things (IoT), offer further possibilities for the convergence of physical and digital environments (**Exhibit 25**).

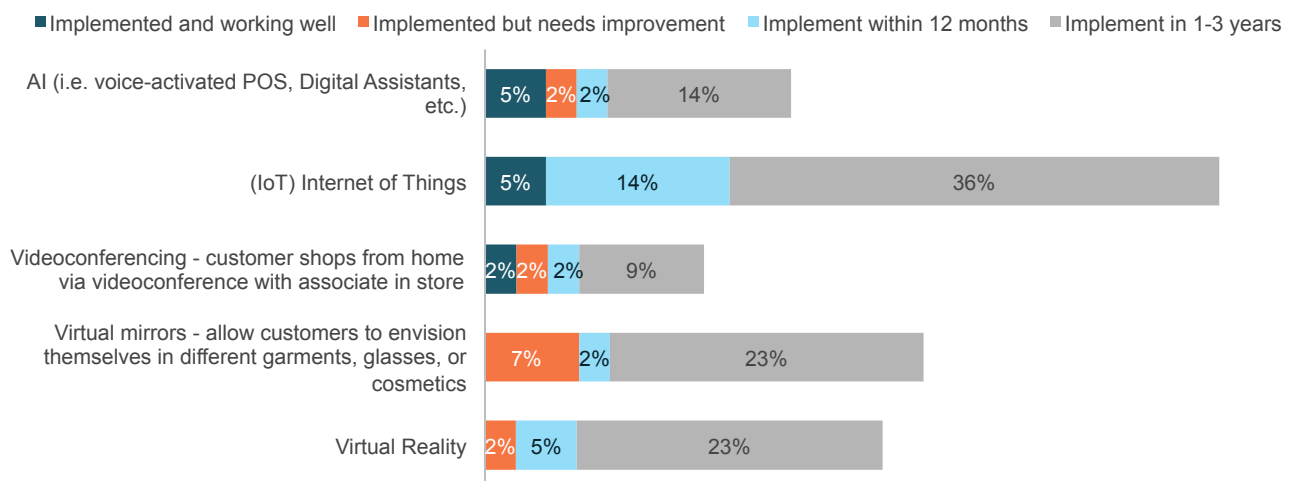
Artificial Intelligence (AI) offers the ability to pair with the vast amounts of data gathered on customers and their preferences, and turns the information around to help personalize the customer experience. We are currently seeing some retailers experiment with AI to offer purchasing suggestions based on answers to a series of questions.

The disruptive technology that is of most interest to retailers is the IoT, with 55% of retailers planning to have this capability within three years. IoT describes an environment where the Internet is connected to physical objects embedded with sensors that can then communicate. The IoT is not just about gathering data but also about the analysis and usage of that data. It has the potential to change the way the customer shops and will also change the checkout experience and transform the point of sale yet again. With sensors embedded in merchandise and mounted within the store, customers have further control over their shopping experience as they can choose the items they want to buy and the purchase will automatically be charged to their credit card on file as they leave the store. We see IoT and similar technology as great examples of how unified commerce will continue to evolve into the future and further shape the customer's experience and their associated expectations.

Virtual reality and augmented reality are hot topics this year with the introduction of Pokémon Go and virtual reality glasses, such as Google Cardboard, putting the technology in everyone's hands. Both areas have the potential to impact the store of the future.

'Smart' fitting rooms utilize virtual mirrors or motion sensors to interact with customers to offer product information, suggest complementary products or notify an associate that a different size is needed. Virtual mirrors allow shoppers to easily envision themselves in different garments, glasses or cosmetics. These technologies coupled with a personal digital assistant can make

Exhibit 25
Disruptive Technologies



recommendations based on customer information, purchase history and current promotions within the store. Currently, 9% of the retailers surveyed offer virtual mirrors to their customers.

Customer engagement in the future may allow a customer to videoconference with their favorite store associate – from home. The customer could request to see different products and even get a better understanding of size and color options based on interaction with an associate. 4% of the retailers surveyed already offer this service to their customers.

As they say, the opportunities are endless, and retailers who continue to look for additional opportunities to enhance the customer experience will have a better chance at success – a unified commerce platform is really just the beginning.

Survey Methodology

Boston Retail Partners conducted the 18th Annual POS/Customer Engagement Benchmarking Survey in November and December of 2016 by contacting more than 500 top North American retailers.

Through an online survey system, BRP gained insight into retailers' planned initiatives, priorities and future trends.

This report summarizes the results and key findings of the survey, offers insight based on our client engagements and overall retail experience, and identifies current and future trends in the industry. These insights are intended to help retailers compare their customer-facing operations and technology and identify opportunities to enhance their customers' experience.

The primary retail segments of the survey respondents were specialty hard goods with 41% of respondents and specialty soft goods with 28% of respondents (**Exhibit 26**). The remainder fell into various other categories such as general merchandise and grocery, food and beverage. This focus on the specialty retail segment remains consistent. Last year's survey also focused on the specialty retail segment with 32% falling into the specialty soft goods category and 35% in the specialty hard goods category.

Of the retailers surveyed, the breakdown in size based on gross annual revenue included a broad selection of Tier 1, 2 and 3 retailers, with 54% of the retailers having more than \$1B in sales (**Exhibit 27**). Overall, the retailers that responded this year were slightly larger than last year when 44% of the respondents had more than \$1B in sales.

This year's survey recognizes the challenges that retailers face as they shift from a single channel environment towards an omni-channel environment as most of the respondents (63%) are multi-channel retailers (**Exhibit 28**).

The specific respondents for each company were primarily vice presidents and directors of store systems or IT and C-level executives.

Exhibit 26
Company Category

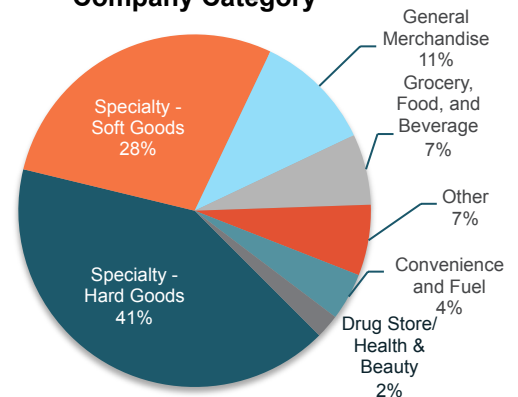


Exhibit 27
Annual Revenue

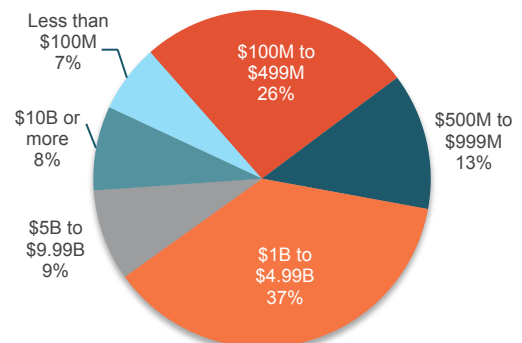
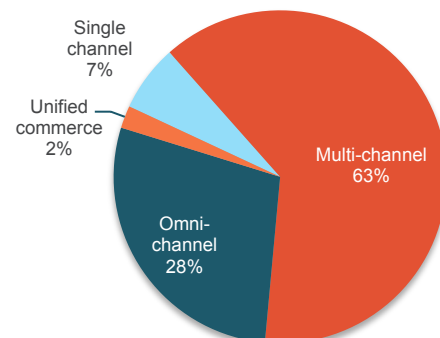


Exhibit 28
Current Channel Integration





About BRP

Boston Retail Partners (BRP) is an innovative and independent retail management consulting firm dedicated to providing superior service and enduring value to our clients. BRP combines its consultants' deep retail business knowledge and cross-functional capabilities to deliver superior design and implementation of strategy, technology, and process solutions. The firm's unique combination of industry focus, knowledge-based approach, and rapid, end-to-end solution deployment helps clients to achieve their business potential.

BRP's consulting services include:

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CRM
Order Management
Supply Chain

Business Intelligence
Mobile POS
Unified Commerce
E-Commerce
Networks

Business Process Optimization
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Customer Experience & Engagement
Merchandise Management
Private Equity

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With an installed base of more than 1 million EPOS systems worldwide, Diebold Nixdorf provides leading technologies for automating checkout processes. We leverage our expertise in seamless omnichannel retailing, store transformation and global delivery excellence, to help retailers achieve their business objectives and engage consumers.

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Visit us at <http://www.fujitsu.com/us/solutions/industry/retail/>

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PCMS

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With over 30 years of experience, PCMS has developed and delivered commerce solutions for many of the world's most prestigious retailers. With over 140 customers in 57 countries and more than 250,000 selling points, PCMS provides the VISION Commerce Suite of solutions to meet the ever changing needs of the retail market. Whether it is mobile POS, new self-service technology, or a conduit between ecommerce and brick-and-mortar store systems, PCMS has the products and solutions to meet retail technology needs.

VISION BeanStore and VISION OnDemand, PCMS' cornerstone offerings, provide global-ready, point-of-sale solutions and a portfolio of rich applications, data and services that can be used by existing applications or plugged into solutions from other vendors. This allows retailers to have a single-view of the customer and to create a true unified commerce experience. Moreover, VISION BeanStore enables global retailers to control costs by using the same technology and the same system worldwide across multiple sectors, geographies, currencies, tax scenarios, and languages.

PCMS also provides "Cloud Solutions" to the retail sector including private hosting, remote monitoring and management, and 24/7 help desk support. All provided in a secure offering, as PCMS has delivered EMV compliant solutions to the world for over a decade.

For more information about how PCMS enables retail commerce, please visit <http://www.pcmsdatafit.com>

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About the Salesforce Commerce Cloud

The Salesforce Commerce Cloud empowers retailers to unify customer experiences across all points of commerce, including Web, social, mobile and store. From shopping to fulfillment to customer service, the Commerce Cloud delivers 1-to-1 shopping experiences that consistently delight customers, driving increased engagement, loyalty and conversion. With embedded predictive intelligence and a robust partner ecosystem, the Commerce Cloud delivers customer satisfaction and growth from planning to launch and beyond.

For more information, visit commercecloud.com, call +1-888-553-9216 or email commercecloud@salesforce.com

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