

# RETAIL IQ



REDEFINING EFFICIENCY  
AND BUILDING THE  
FOUNDATION FOR NEXT-GEN  
STORE OPERATIONS

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## 04

### Maturity Ladder:

#### Next-Gen Store Operations

The *RIS News Retail IQ Report Maturity Ladder* is a diagnostic measurement tool for a retailer's state of technology advancement in a specific category. There are four key phases: **1. Basic** – minimal capabilities, **2. Intermediate** – mostly basic with some advanced capabilities, **3. Advanced** – mostly advanced capabilities with some limitations, and **4. State-of-the-Art** – comprehensive capabilities are fully integrated and up to date. Note that it is possible to be on more than one step of the ladder simultaneously as specific technology components and processes are upgraded in phases.

## 03

### 4. STATE-OF-THE-ART

- Retailers increase IT spending and invest in modernized networks.
- Retailers replace legacy-based networks with web-enabled conduits that improve business operations and “future-proof” their companies.
- Brands put networks in the cloud to simplify and streamline communications, and gain network flexibility. Also called Network-as-a-Service (NaaS), retailers use bandwidth on an as-needed basis, a move that lowers the total cost of ownership.
- Companies use NaaS for failover network support. By relocating virtual machines in the cloud, the backup network, which stays online independent of the offline network, processes digital traffic without disrupting business operations.

## 02

### 3. ADVANCED

- Retailers make the move to a unified shopping experience, one that enables multi-channel shoppers to conclude their omnichannel experience at store-level.
- In their transition to create a unified shopping experience, retailers give shoppers real-time access to enterprise-wide inventory levels, a move that personalizes their path to purchase.
- Retailers begin accepting mobile wallets at store-level. The evolving payment option gives retailers another means to speed up checkout and drive customer loyalty.
- Retailers adopt mPOS as a means of putting associates in front of shoppers and driving engagement. It not only helps fulfill the last mile of a customer's shopping experience, but on the back-end, as an interactive interface, keeps associates on point with their daily responsibilities and projects.

## 01

### 2. INTERMEDIATE

- Retailers legacy systems and complicated networks are too rigid to support emerging omnichannel capabilities.
- Retailers transition legacy-based systems and networks to more agile infrastructures, such as broadband networks, in hopes of streamlining increasingly-complex operations.
- Brands begin adopting mobility strategies to connect with customers in real-time.

### 1. BASIC

- Retailers adopt omnichannel operations as a means of streamlining the customer's path-to-purchase.
- Brands continue to add new network connections to support transactional, voice and video data — a move that becomes complicated, and causes data and operational silos.
- Retailers' existing legacy systems are not robust or secure enough to handle increasing web-enabled processes, store-level operations and supporting devices.



**When retailers first embarked on the all-channel retailing journey, they relied on complicated networks and solutions to present a more engaging shopping experience. As retailers continue to expand their digital operations, this complexity is taking a toll on the customer experience and behind-the-scenes processes. Retailers are ready to leave the complexity behind in favor of next-generation solutions and network options that can redefine operational efficiency and supercharge the in-store shopping experience.**



# 3.9%

**Retailers planned investment increase on in-store technology.**

Source: RIS News, "The 13th Annual Store Systems Study 2016: Retail Technology Spend Trends"

Contrary to industry observers' original predictions, the omnichannel retailing model did not demote stores to mere showrooms. Instead, the retail store has evolved into a hot bed for customer engagement. These retail destinations now use digital touch points to connect with shoppers in real-time throughout the shopping experience, offer new fulfillment and returns services, and in some cases, feature innovation labs to stay abreast of the newest ways to future-proof their business and further improve the last mile of the shopping experience.

It is such a priority that retailers planned a 3.9% increase in in-store technology spending this year, according to "The 13th Annual Store Systems Study 2016: Retail Technology Spend Trends," a report from *RIS News*. A bulk of this spending will be aimed at transforming channel-specific, siloed systems into a unified foundation, one that encompasses "a single version of the truth" for products, customers, transactions and sourcing locations. It will also be the premise needed to finally seamlessly merge the physical and digital worlds.

With more retailers committed to merging their brick-and-mortar and virtual operations, it is not surprising that incorporated digital and "smart" technology investments could contribute to an estimated \$11.1 trillion a year in economic value by 2025, according to "The Internet of Things: Mapping the Value Beyond the Hype," a report from McKinsey Global Institute. As retailers continue to adopt more next-generation point-of-sale (POS), self-checkout, digital or smart-driven customer engagement, and other digital solutions to streamline operations, the retail industry alone could contribute \$1.2 trillion annually, the report said.



An influx of technology continues to revolutionize every aspect of the store environment — both from a customer-facing perspective as well as when streamlining operations — and retailers' commitments show no signs of slowing.

## A Need for Speed

For the customer, their priorities are clear: they have “a need for speed.” They are demanding retailers adopt solutions that can enhance their user experience, engage them throughout the shopping journey, and remain instantly accessible — especially at store-level. The top priorities for customers' in-store experience include:

**Unified Shopping.** As consumers become conditioned to a shopping experience where they can channel-hop across touch points when pursuing a purchase, they now expect to be able to continue this digital experience right at store-level — without any back-end barriers or loss of information accrued through digital channels. For 85% of retailers, unified commerce is a top priority, as they shift their focus from channel integration to a holistic customer experience, according to “Unified Commerce is the Goal, ‘Faux’ Omnichannel is the Reality!,” a report from Boston Retail Partners (BRP). This is great news for consumers, as their favorite brands are making conscious efforts to transform their organizations, business processes and technologies to align with and satisfy demand.

**Enterprise-Wide Inventory Visibility.** As retailers break down the walls to create a seamless shopping experience, customers are accustomed to having access to pricing, promotions and recommendations across multiple touch points, in real-time. They want the same instant access to enterprise-wide inventory levels as a means of personalizing their path-to-purchase. To date, 48% of companies already feature this service, however, their cross-channel visibility is in need of improvement, according to BRP's report. Those that can make the improvement will create “endless aisle” capabilities, and the ability to “save the sale” by selling merchandise across channels — two moves that enhance customer service and loyalty.

**New Payment Options.** In an omnichannel world, retailers need to embrace digital payment options, especially those that speed up the

# \$11.1

## TRILLION

The estimated annual economic value that digital and “smart” technology investments could contribute to the economy by 2025.

Source: McKinsey Global Institute, “The Internet of Things: Mapping the Value Beyond the Hype”

**IAN PENNELL**

CMO, Cradlepoint

# Shaping Next-Gen Retail Operations

**Q: What are the biggest trends shaping next-gen retailing?****IAN PENNELL:** One of the hot buttons across retail organizations is how to utilize technology to adapt to customers' needs, demands, and expectations.

Over the last 20 years, retailers have been building networks based on a "build-your-own" model. This requires IT organizations to plan network infrastructure with the in-house IT team, then figure out how the solutions work, and finally configure and maintain the network. The problem with this model is it brings enormous costs and complexity. It also reduces agility and adaptability for new technologies to be added — like tablets and mobile devices.

Today, vendors are producing solutions that are less complicated, more cost-effective, quicker to deploy and easier to manage. For example, in-store operations, adopting LTE with cloud management and software-defined networks makes it easier — with less human capital and costs — to spin up new networks, manage current networks, and add devices and applications.

**Q: As retailers pursue the next-gen store environment, what are the biggest complexities they face?****PENNELL:** The biggest complexities involve adapting to the mobile environment. There is a mass movement away from the fixed cash register. Being able to use smartphones and tablets to process transactions throughout the store is vital.

Other keys include providing customer WiFi and using analytics to tailor customer messages for loyalty programs or to draw customers into a store.

Implementing flexible technologies like LTE, cloud management, and software-defined networking reduces complexity — and costs.

**Q: What role is cloud playing in supporting network connectivity?****PENNELL:** The cloud makes it possible for retailers to use wired and wireless connectivity to ensure a constant network connection with best-in-breed security and applications. A cloud management layer for distributed locations enables retail IT teams to configure, deploy, monitor, manage, load balance and get alerts in real time.

In the increasingly fluid retail space, incorporating the cloud is extremely cost-effective compared to the "build-your-own" network infrastructure. Organizations no longer need a data center or need to physically build out all of the infrastructure with expensive hardware.

**Q: How are retailers utilizing Networking-as-a-Service (NaaS)?****PENNELL:** Retailers are utilizing NaaS for insight into their network without all of the expensive hardware traditionally necessary at edge locations. NaaS provides a pay-as-you-go or scale-as-you-need model, which is a big advantage when managing hundreds or thousands of locations. This provides the flexibility to respond to constantly changing consumer expectations and operational needs.

The foundation of next-generation retail store operations are flexible, secure networks with stable connectivity. The combination of LTE, the cloud, and software-defined Networks-as-a-Service makes it all possible.

“Cradlepoint makes complex connectivity simple by enabling our customers to successfully design smarter networks and more intelligently connect their business, employees, and devices.”



Cradlepoint is the global leader in cloud-based network solutions for connecting people, places, and things over wired and wireless broadband. Cradlepoint NetCloud is a software and services platform that extends the company's 4G LTE-enabled multi-function routers and ruggedized M2M/IoT gateways with cloud-based management and software-defined network services. Learn more at [www.cradlepoint.com](http://www.cradlepoint.com)



**Retailers that are making unified commerce a top priority as they shift their focus from channel integration to a holistic customer experience.**

Source: Boston Retail Partners, "Unified Commerce is the Goal, 'Faux' Omnichannel is the Reality!"

checkout experience. Enter the value of mobile wallets. Whether it's Samsung Pay, Apple Pay, Google Wallet, or PayPal, mobile wallet options are emerging on a seemingly daily basis. These personal apps store users' debit and credit card numbers, and enable shoppers to pay for orders via their smartphones.

Near field communications (NFC) electronically initiate and secure payments between contactless payment terminals and shoppers' smart devices, a process that is helping speed up the checkout process both via mobile channels and in-store. Currently, less than one-third (28%) of retailers accept mobile payments in store, according to "State of the Industry Research Series 2015: Customer Context Power — A Success Imperative," a report from EKN Research. However, change is on the horizon, as 54% of retailers planned to adopt mobile payments within the next 24 months, the report said.

One of the best examples of a mobile payment pioneer is Starbucks. Accepting NFC payments as far back as 2011, Starbucks' Mobile app for iOS or Android supports mobile payment at store-level checkout and through its Mobile Order & Pay functionality. And both features enable enrolled customers to earn stars for the Starbucks Rewards loyalty program. The coffee retailer said growth in the third quarter of 2016 was driven by increased Mobile Order & Pay transactions. More specifically, Starbucks Mobile Order and Pay usage reached 5% of all U.S. transactions in the third quarter 2016, up from 4% in Q2.

"When you look at our busiest stores at peak, when Mobile Order & Pay is most valuable to our customers and most effective at unlocking capacity in our stores, we see an even more impressive trend," Kevin Johnson, president and chief operating officer and director said. "In more than 2,700 stores across the U.S., Mobile Order & Pay represents more than 10% of total transactions at peak. In several hundred of those U.S. stores, Mobile Order & Pay represents more than 20% of transactions at peak."

## Keeping Up the Pace

As consumers demand these solutions at store-level, retailers' customer-



**CHAD GOLDSMITH**Industry Principal,  
Retail Solutions, NetSuite

# Omnichannel Redefines Store Operations

**Q: How is digital retailing continuing to increase the value of the physical retail store?**

**CHAD GOLDSMITH:** Brick and mortar retail stores have been able to expand their product assortments by leveraging digital technologies to sell products to customers that don't physically exist in the store. This "endless aisle" strategy has shown big wins for retailers deploying even at a small scale. Retailers that began with store associates leveraging existing e-commerce technologies are now investing in mobile in-store solutions that give additional visibility into the enterprise supply chain, as well as the ability to support additional strategies, such as BOPIS.

**Q: What does next-gen store ops mean to you?**

**GOLDSMITH:** Retail omnichannel strategies have brought a number of new operational responsibilities into the store. Functions include ship-from-store, pickup-in-store, return-in-store, and save-the-sale or "endless aisle" strategies. These are all new operational tasks that have entered into the brick and mortar world just recently. The key to success is empowering the store associate with access to data beyond the four walls to include inventory at other store locations, online-only merchandise, access to customer wish lists, and the ability to support blended transactions made up of both cash-and-carry and shipped products. Mobile in-store applications have been key to bringing that data into the store associate's hands, allowing her to engage with the customer in a more effective way.

**Q: What areas do retailers still struggle with in this journey?**

**GOLDSMITH:** "Endless aisle" and omnichannel strategies live and die on the basis of inventory accuracy. Retailers that struggle to maintain acceptable inventory accuracy rates are finding it difficult to provide positive experiences for their customers. A promise for pickup in store can end badly when a customer shows up and their merchandise isn't there. Moving to an accurate and real-time view of enterprise inventory should be a first step to remediate issues. Retailers are also struggling with methods to train and incentivize store associates to engage with customers in new areas such as add-on product recommendations. SPIFF programs can be an important part of the store roll-out. And finally, task management and prioritization to include all of the new operational tasks needs to be addressed as more operational assignments are given to store employees.

**Q: What are the next-gen solutions that retailers should be adopting in an effort to achieve truly unified commerce?**

**GOLDSMITH:** The foundation for unified commerce is enterprise-wide inventory and customer visibility. From that vantage point, a mobile in-store solution can be a powerful way to more effectively engage with customers that are browsing, shopping or returning merchandise. Blending traditional e-commerce tools such as product recommendations, detailed product information, and wish lists, together with in-store promotions and full inventory visibility can lead to additional revenue and higher customer satisfaction. A purchase in a unified commerce world can include a product exchange, an upsell accessory item, a purchase from a wish list, and a gift item shipping to another individual, all in one seamless transaction for the customer.

“The key to success is empowering the store associate with access to data beyond the four walls to include inventory at other store locations, online-only merchandise, access to customer wish lists, and the ability to support blended transactions.”



NetSuite is a leading end-to-end cloud commerce solution for multi-channel and multi-location retailers and is the only cloud system to unify in-store and e-commerce on a single platform with your core operational business systems — inventory and order management, CRM, business intelligence and financials. For more information visit [www.netsuite.com/retail](http://www.netsuite.com/retail).



# 28%

Retailers that accept mobile payments in store.

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# 54%

Retailers that planned to adopt mobile payments within the next 24 months.

Source: EKN Research, "State of the Industry Research Series 2015: Customer Context Power — A Success Imperative"

facing workforce must also keep up the pace if they want to help shoppers complete the last mile in their path to purchase. Front-line associates have a very short window to engage shoppers, and they need the proper tools that grant the same insight and information that consumers can access. For many companies, mobile platforms fit the bill.

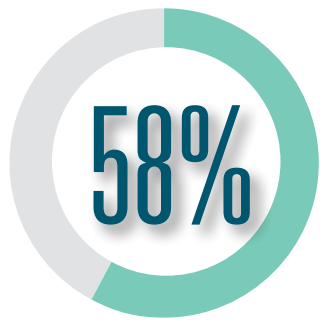
Mobile platforms were among the top three digital business priorities for 58% of retailers in 2015, according to "The State of Retailing Online 2015: Key Metrics, Initiatives, And Mobile Benchmarks," a report from Forrester Research. The top two store operations this transition supports are mPOS and an empowered workforce.

The role of POS is transitioning away from a tendering device and into an interactive hub that can link users to customer information, shopping history and purchasing behavior across channels with the simple swipe of a finger. With traditional POS system lifecycles peaking at approximately 6.9 years, according to "State of the Industry Research Series: 2015 Retail Point-of-Sale Blueprint, a report from EKN Research, the timing is ripe to adopt mobile-based POS systems. Besides enabling companies to future-proof their front-end, it streamlines delivery of customer- and enterprise-specific information to flexible mobile devices and tablets — functionality that untethers users from the stationary cash wrap, and enables associates to engage shoppers directly on the sales floor.

As the power of POS moves away from the cash wrap and into the hands of customer-facing associates, the concept of engagement is getting a make-over. Associates can personally interact with shoppers directly on the sales floor as they make their buying decisions, investigate inventory levels to avoid a lost sale due to out-of-stock situations, and place or tender an order in real-time, driving further customer service. It could become the mission-critical tool for 68% of retailers eager to utilize new technology to improve the customer experience, identify customers, and access customer-specific information in real-time, according to the "The 17th Annual POS/Customer Engagement Survey 2016," from Boston Retail Partners.

Lovesac, a manufacturer and retailer of patented foam-filled furniture, is one company rolling out mobile POS to unify the physical and





**Retailers that placed mobile platforms among their top three digital business priorities for 2015.**

Source: Forrester Research, "The State Of Retailing Online 2015: Key Metrics, Initiatives, And Mobile Benchmarks"

digital shopping experiences. As the customer enters the store they are welcomed by sales associates who have an iPad which accesses existing customer profiles or can create a new one. Associates have the ability to look up a customer’s personal purchase history, find items for the customer and filter them based on attributes such as the item’s color family or season.

Further, mobile task management solutions help keep employees on task when it comes to their daily responsibilities. Whether they are using smartphones, tablets or wearables, mobile task management solutions grant associates the ability to execute and verify projects, and gives managers visibility into statuses.

### Buyer Beware

While digital strategies are transforming customer- and employee-facing operations, there are challenges to overcome. The biggest struggles lie in existing supporting networks. Just as omnichannel retailing has taken time to evolve and move into an integrated process, brands’ networks need to play catch-up.

Early voice networks did not provide enough bandwidth to support the data flowing between channels and emerging digital touch points. As such, retailers continually added new wireless connections to support their digital strategies. In the process however, retailers created a siloed, complex network infrastructure that became costly to maintain and difficult to manage.

The good news is that as retailers increase their IT spending, retailers are clearly focused on transforming siloed processes into a unified system — one that can truly support store-level omnichannel operations. Among one of the top priorities is reducing the complexity of these tangled networks — a move that promises to sustain connectivity, cut operating costs, and give customers and associates faster access to the information needed to complete the last mile of their purchase journey.

With 29% of companies focused on bolstering in-store digital capabilities, wide area network (WAN) and WiFi upgrades are among retailers’ top five priorities this year, according to *RIS News*’ “The 13th Annual



Store Systems Study 2016: Retail Technology Spend Trends” report.

One way to streamline these upgrades is to manage networks in the cloud. Eager to offset their legacy systems, especially complicated land-lines and cable-based networks, retailers are exploring the cloud due to its flexibility and scalability. Also called Network-as-a-Service (NaaS), cloud-based networks provide retailers an alternative to manage network services virtually over the Internet on a pay-per-use, or monthly subscription basis, which lowers their total cost of ownership.

NaaS is also an ideal environment for failover network support. By relocating virtual machines in the cloud, the backup network, which stays online independent of the offline network, can process digital traffic without disrupting business operations.

David’s Bridal knows the value of cloud-based failover first-hand. The company historically used a 1X wireless air interface and 3G networking configuration to deliver basic network connectivity to the company’s distributed locations. As 4G LTE became an increasingly sound alternative however, David’s Bridal knew it needed to future-proof the network. This lit a fire under Kevin Weaver, David’s Bridal’s director of infrastructure, to find the most efficient and affordable way to take advantage of 4G technology.

He set out to modernize his network backup system, and add more capabilities and features that leveraged 4G LTE. Considering the IT staff also managed a 330-plus device network in a fairly manual way, the new solution needed to provide central management of connectivity at all their distributed locations. Following proof-of-concept tests, David’s Bridal chose a network management and application platform to manage the broad network enterprise-wide, as well as integrated a cloud-managed 3G/4G/LTE failover networking solution.

“From a network architecture standpoint, switching to the new configuration allowed us to standardize on one device with one setup, and then manage it all in one single place,” Weaver said.

With more data flowing over the network than ever before, David’s Bridal also couldn’t take a chance on connection losses, which can come from a variety of sources. First, the new network affords the specialty



Source: EKN Research, “State of the Industry Research Series: 2015 Retail Point-of-Sale Blueprint”



# 68%

**Retailers that are eager to utilize new technology to improve the customer experience, identify customers, and access customer-specific information in real-time.**

Source: Boston Research Partners, "The 17th Annual POS/Customer Engagement Survey 2016"

retailer more bandwidth so that voice-over IP (VOIP) and other applications could continue to function optimally. The configuration also enables David's Bridal to deliver new services without having to purchase new equipment.

Meanwhile, the threat of data breaches are not going away, and David's Bridal needs to be able to protect their network in minutes, not hours. The new NaaS solution enables Weaver and his team to respond immediately to defend against threats, and keep the network online.

## Conclusion

The complicated, siloed networks that supported the early stages of omnichannel retailing have no place in an always-on retailing world. As retailers expand their digital operations through the addition of mobility, new payment options, and store-level customer engagement processes, retailers need to consider a new foundation to keep processes efficient and customers happy.

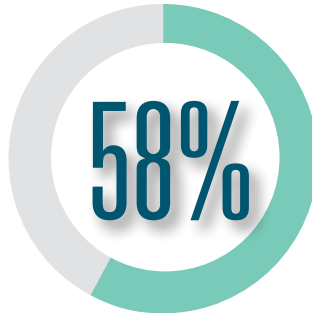
By adding new networking solutions, especially those managed in the cloud, retailers can bolster in-store digital capabilities, ensure business data continues to flow without interruption, and speed up the customer experience — all in the name of improving the last mile of the shopping experience.



3.9%

Retailers planned investment increase on in-store technology.

Source: RIS News, "The 13th Annual Store Systems Study 2016: Retail Technology Spend Trends"



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TRILLION

The estimated annual economic value that digital and "smart" technology investments could contribute to the economy by 2025.

Source: McKinsey Global Institute, "The Internet of Things: Mapping the Value Beyond the Hype"



6.9 YEARS

A traditional POS system lifecycle.

Source: EKN Research, "State of the Industry Research Series: 2015 Retail Point-of-Sale Blueprint"



Retailers that are making unified commerce a top priority as they shift their focus from channel integration to a holistic customer experience.

Source: Boston Retail Partners, "Unified Commerce is the Goal, 'Faux' Omnichannel is the Reality!"

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