

For: CIOs

# The Retail CIO Agenda 2015: Secure And Innovate

by George Lawrie, February 19, 2015

## KEY TAKEAWAYS

### **Security And Governance Are Top Priorities For Retail CIOs**

Retail CIOs understandably prioritize data security, given the high-profile breaches in the past year and the proliferation of new technologies and mobile apps that their business colleagues want to introduce. Retail CIOs look for structures to exercise appropriate governance and thrift while fostering innovation to create business value.

### **Resource Constraints Drive Retail CIOs To Tap Existing Investments For Innovation**

Retail CIOs must manage a mounting burden of maintenance to keep their legacy portfolios running. Moreover, tight budgets and resources mean they must use existing investments to deliver compelling guest experiences. They agree on the objective and definition of “omnichannel” retailing but are still developing a clear path to implementation.

### **Modern Retail CIOs Manage Portfolios Rather Than Projects**

Retail CIOs are reinventing themselves as managers of portfolios of partnerships, services, and applications while balancing risk, costs, and rewards to deliver on their firms’ brand promises to the most demanding of highly empowered customers.



## The Retail CIO Agenda 2015: Secure And Innovate

by [George Lawrie](#)  
with [Sharyn Leaver](#) and Victoria Boutan

### WHY READ THIS REPORT

In December 2014, Forrester partnered with the National Retail Federation (NRF) for its annual survey of retail CIOs to understand their most important challenges and opportunities for the upcoming year. Additionally, this study explores the efforts of retail CIOs to support an all-touchpoint, unified, and differentiated customer experience that delivers on their brand promise to highly empowered consumers while managing the increasingly sophisticated security threats of a digital world. This report outlines the results of the survey, together with the NRF CIO Council discussion at its January meeting and the retail CIO panel session at the 2015 NRF BIG Show, and compares these results with similar data from the 2013 and 2014 studies. The study also illuminates the development of a new style of retail CIO, one who successfully collaborates with other C-suite executives to drive growth and skillfully manages technology partnerships and costs while defending the organization from sophisticated cyberthreats.

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Forrester surveyed and interviewed 84 members of the National Retail Federation's CIO Council.

#### Related Research Documents

[Predictions 2015: Systems Of Engagement Will Shape The Retail And CPG Application Landscape](#)

November 19, 2014

[Brick And Mortar Retail Fights Back](#)

May 1, 2014

[Prioritize Retail Technology Management Investments To Stay Competitive](#)

February 6, 2014



## CIOs BALANCE THE DUAL PRIORITIES OF SECURITY AND DIGITAL INNOVATION

In December 2014, Forrester partnered with the National Retail Federation to survey 84 top retail CIOs about their priorities for 2015. We also reviewed the survey results with the NRF CIO Council at a private session and conducted a public panel discussion at the NRF BIG Show in January 2015. Not surprisingly, there is intense concern about data security, but retail CIOs also expressed a strong — and equally compelling — need to work closely with their line-of-business colleagues to create more business value and foster innovation. Driving the practical execution of “omnichannel” strategies to support the customer’s choice of shopping experience is top of mind for retail CIOs.

### Security And Governance Are The Most Urgent Concerns

Almost a third of CIOs (30%) expect their budget to be flat for 2015, and just slightly more (34%) expect an increase of less than 10% to their budget (see Figure 1). With most retail CIOs working with flat or modest budget increases in 2015, they must choose their priorities wisely. Topping the list are intense concerns around:

- **Data security.** With last year’s data breaches in mind, retail CIOs are acutely conscious of the increasing threat to security by sophisticated cybercriminals.<sup>1</sup> As expected, almost all IT executives surveyed (97%) consider managing data security to be one of their top five considerations in 2015 (see Figure 2). Retail CIOs know that data is an asset yielding high value to legitimate analysis, but they are equally aware that confidential data about their customers is an attractive target for well-organized criminal enterprises. They are interested in data management and collaborative services to help maintain customer confidence.

“It’s not just perimeter defense — it’s prevention, it’s detection, and it’s remediation and communication, and you need to be on top of all of those areas and constantly innovating in those areas.” (Member of the NRF CIO Council)

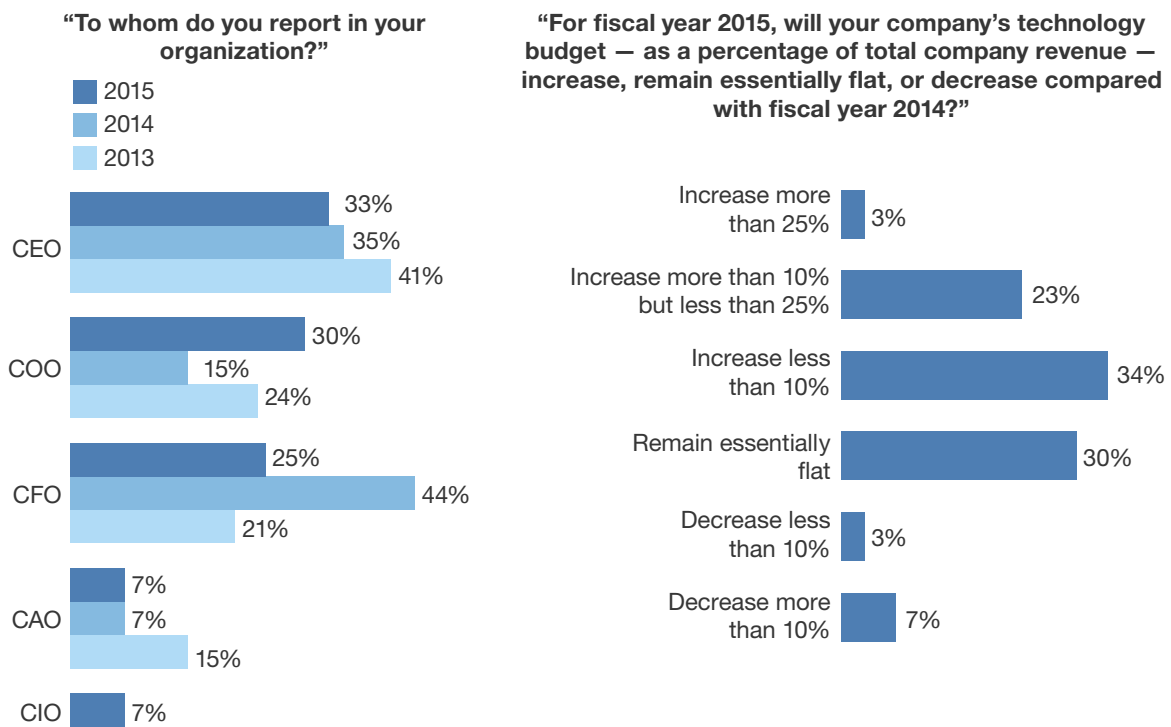
“The role of the CIO is going to be very important in pulling all of these things together and helping to create the cultural DNA that’s necessary for the organization to adopt [the idea of] security not as an IT problem but as a business problem.” (Member of the NRF CIO Council)

- **Technology governance.** Fully focused on securing the existing portfolio from security threats, retail CIOs are understandably concerned that their line-of-business colleagues may become impatient and invest independently in everything from location technologies and independently developed mobile apps to software-as-a-service business intelligence solutions. Given the potential implications of “rogue” technology investments that can result in portfolios of disconnected applications, retail CIOs are justifiably concerned about the business requirement for strong corporate-level technology governance. In 2015, effective governance was second only to data security, with 78% of retail CIOs reporting it as one of their top five concerns — up from a mere 24% of CIOs in 2014 and even fewer (20%) in 2013.

“Our focus on security has left pent-up demand for other priorities. For example, we define P2P [point-to-point] encryption as ‘maintenance’ even though it does drive value to the extent that it mitigates quantifiable risk. It’s just hard to explain to our peers who are looking for something shiny, exciting, and customer-facing.” (Member of the NRF CIO Council)

“We need a consistent, systematic way to determine what we do and what we don’t do.” (Member of the NRF CIO Council)

**Figure 1** Survey Respondents’ Reporting Lines And Budget Expectations



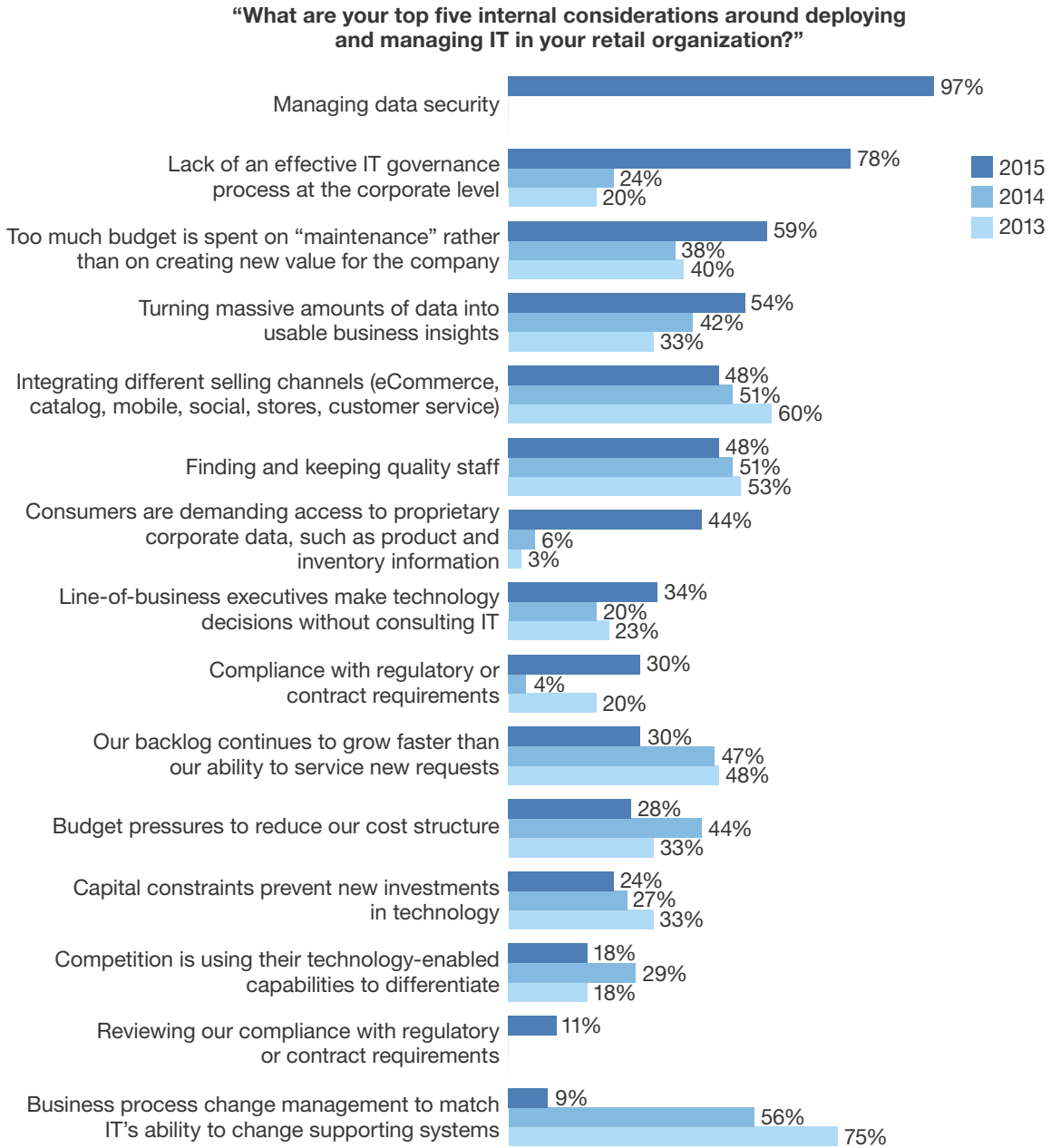
Base: 84 retail CIOs/IT executives

Source: NRF CIO Council Agenda Surveys, 2013 to 2015

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**Figure 2** Retailers Still Prioritize Security, Now Seek Strong Corporate-Level Tech Governance, Too



Base: 84 retail CIOs/IT executives

Source: NRF CIO Council Agenda Surveys, 2013 to 2015

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## Top-Line And Margin Responsibilities Fuel Innovation Priorities

CIOs have loosened their reporting ties to chief financial officers (CFOs) and increasingly report to executives with overall top-line and margin responsibility. Compared with 2014 and 2013, fewer report to the CFO and more to the CEO (33%) or chief operations officer (30%). With more pressure to help their firms grow revenues, retail CIOs are stepping up to deliver:

- **High-value innovation.** Retail CIOs know that maintaining existing applications and services is consuming an increasing proportion of their budget. However, “maintenance” now is closely tied to both security and innovation and is no longer simply a matter of “keeping the lights on” for the existing technology portfolio. For example, executives noted that “maintenance” must include securing the existing application portfolio against cybercrime. In 2013, 40% of retail CIOs surveyed included the dwindling proportion of budget for value-generating innovation among their top five concerns; the percentage increased to 59% by 2015. However, retail CIOs also noted that leveraging further the very systems that they already have in place and actively maintain presents a key opportunity to create additional value for the business.

“It’s about ‘squeezing the juice.’ We have pretty sophisticated systems — for example, demand forecasting. But we need to take the time to see if we can do better — for example, [getting] an extra inventory turn. With buy-in and involvement from the exec team, we can do this.”  
(Member of the NRF CIO Council)

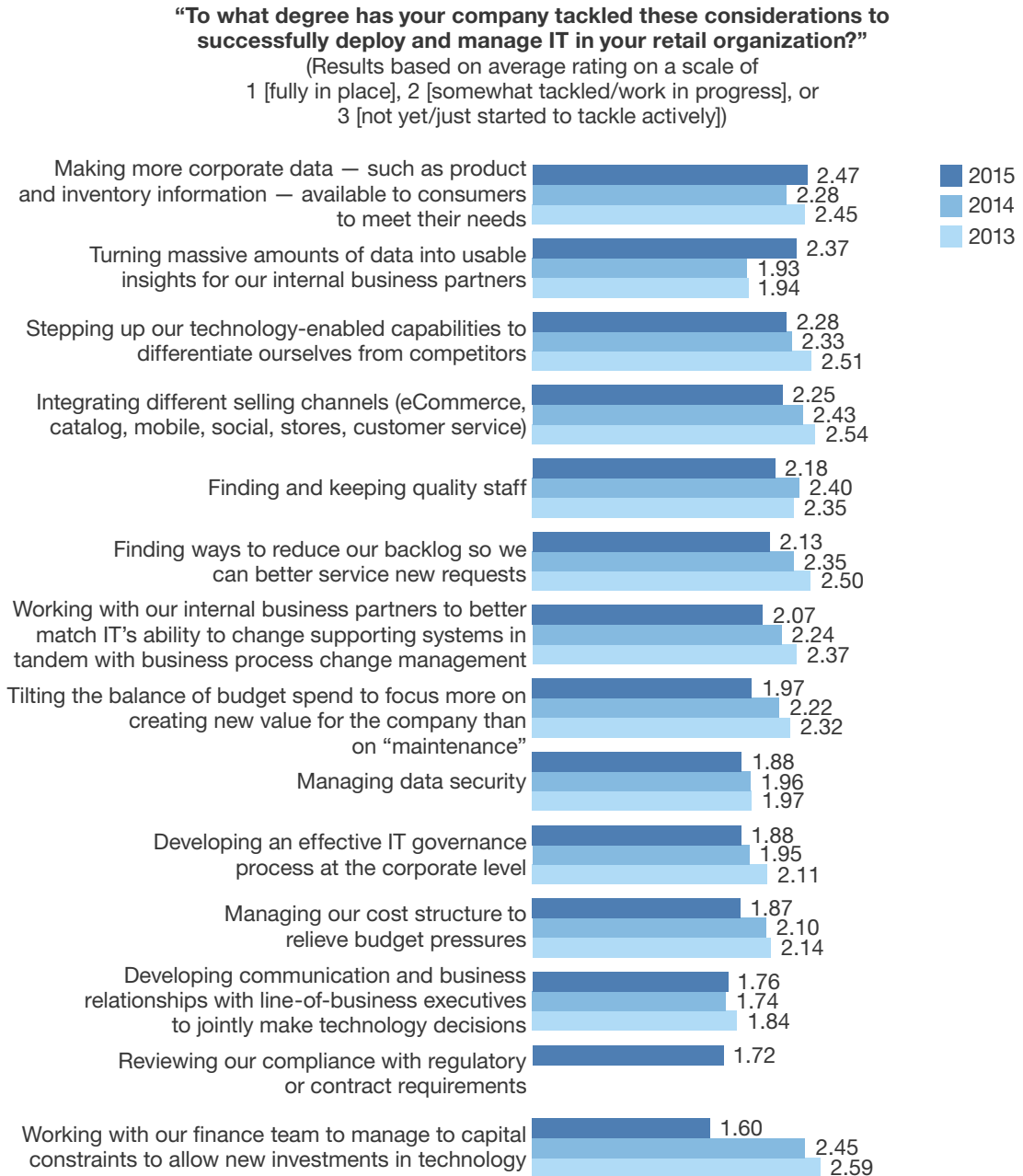
- **Responsiveness to revenue-focused lines of business.** Retail CIOs rated the degree to which they have tackled a number of issues on a scale of 1 to 3, where 1 indicates fully accomplished, 2 indicates work in progress, and 3 indicates not yet or only just started to tackle. The CIOs surveyed claimed most success in working with their finance teams to manage within capital constraints, rating themselves a healthy average of 1.60 this year, compared with 2.45 in 2014 and just 2.59 in 2013 (see Figure 3). The CIOs surveyed also noted progress in tilting the balance of budget spend to focus more on creating new value for the company than on maintenance, steadily improving from 2.32 in 2013 to 1.97 in 2015.

They also reported some improvement in developing better communication and business relationships with line-of-business colleagues, with the index improving from 1.84 in 2013 to 1.76 in 2015. These closer relationships with the business owners will be crucial for CIOs to make further progress in other areas. For example, CIOs understand the enterprisewide need for making more product and inventory data available to customers (barely moving from 2.45 in 2013 to 2.47 in 2015) and integrating different selling channels (just starting to gain momentum, improving to 2.25 in 2015 from 2.54 in 2013). It is imperative for the entire C-suite team to collaborate closely to achieve these goals, both of which certainly depend not only on technology but also on resolving fundamental issues spanning organizational structure, compensation, marketing, and more to make them a reality for the customer.

- **Actionable insight from big data.** CIOs reported that the degree to which they have tackled turning massive amounts of data into usable insights actually deteriorated from 1.94 in 2013 to 2.37 in 2015. Why? Retail CIOs understand the opportunity that the proliferation of new data sources offers to drive customer engagement. They can visualize where they want to be, but they also know it will require tight coordination and co-creation with business peers to decide which data they want to use and which combinations of variables can guide smart, timely decisions as well as contextualized and personalized customer experiences.

“The key to big data in the abstract is ‘anonymization’ and aggregation — that’s great for trends and lots of [other] things, but for personalization, it needs to be an intimate relationship with your customer, and it needs to be on an opt-in basis.” (Member of the NRF CIO Council)

**Figure 3** CIOs Made Most Apparent Progress With Value, Least With Line-Of-Business Relationships



Base: 84 retail CIOs/IT executives

Source: NRF CIO Council Agenda Surveys, 2013 to 2015

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## Omnichannel Priorities Focus On Execution

Retail CIOs broadly agree on the importance and nature of “omnichannel.” They have a clear idea of what omnichannel capabilities they need to deliver. However, they, along with the rest of the business, still grapple with the “how” — in particular, how to find best practices and resources to:

- **Support customers’ expectations.** CIOs know that customers shop brands, not channels — that’s why they expect to return online purchases in stores, for example. Our survey responses showed increased urgency around integrating selling channels. Second only to data security management, more than three-quarters (76%) of CIOs surveyed included integrating the selling channels to enable an omnichannel face to the customer in their top three 2015 priorities, up from 64% in 2013 (see Figure 4).

“Channel integration/omnichannel is still relevant, but isn’t it really about letting the customer shop on her terms, not our terms?” (Member of the NRF CIO Council)

“As you move down that omnichannel road map, it exposes your store processes — whether it’s in the fulfillment, the return, and so on — [so we’re] trying to understand what the most efficient process is and how we get there.” (Member of the NRF CIO Council)

- **Manage conflicting priorities.** Retail CIOs believe that the omnichannel vision is clear but that other more urgent initiatives are frustrating its full implementation. In particular, most retailers must resolve organizational and accountability issues.

“The vision of how omnichannel will come together has crystalized. It’s now about figuring out ‘what are we going to do?’ We are working on figuring out how it will get done. With the focus on data security — it is urgent, but omnichannel is [also] important. Right now, we are giving priority to the urgent requirement.” (Member of the NRF CIO Council)

“We know that more IT spend is headed toward marketing, so how do we bring some of the structure and process that IT has to the agility and flexibility that marketing has [in order] to build those relationships and collaboration that output [these] kinds of projects?” (Member of the NRF CIO Council)

- **Modernize merchandising systems to optimize assortment, pricing, and inventory.** Retailers’ merchandising applications must manage an extended range of merchandise to woo customers who are spoiled by a vast array of choices from online specialist retailers.<sup>2</sup> They must manage more vendors and more merchandise with shorter life cycles than previously. They also need to support more frequent price changes to compete with the automated pricing of Internet specialists like Amazon.com. Legacy back-office applications won’t be able to keep up as-is, which explains why 63% of CIOs surveyed ranked overhauling merchandise systems in their top three priorities over the next 12 to 18 months, on par with 62% in 2013.

“As the volume [of store-fulfilled orders] grows, we’re finding that we lack clarity in the demand signals. So, what is that store location’s primary assortment, [and] what should it be? It’s becoming much more complicated to delineate between what the appropriate assortment should be on the upfront buy as opposed to what is being influenced by the digital channels.” (Member of the NRF CIO Council)

- **Amass and enrich high-quality customer data.** Given the urgent need for consistency across touchpoints, it wasn’t surprising that our respondents chose customer data as one of their top-priority technology projects for 2015, followed by selecting a next-generation point-of-sale solution and delivering a digital shopping experience (see Figure 5). The right customer data in context is a critical ingredient of applications that deliver differentiating experiences.<sup>3</sup>

“We would like to pre-identify the customer coming to the store [and] also review their pre-store visit research in order to offer appointments with store associates equipped to deliver excellent personal service.” (Member of the NRF CIO Council)

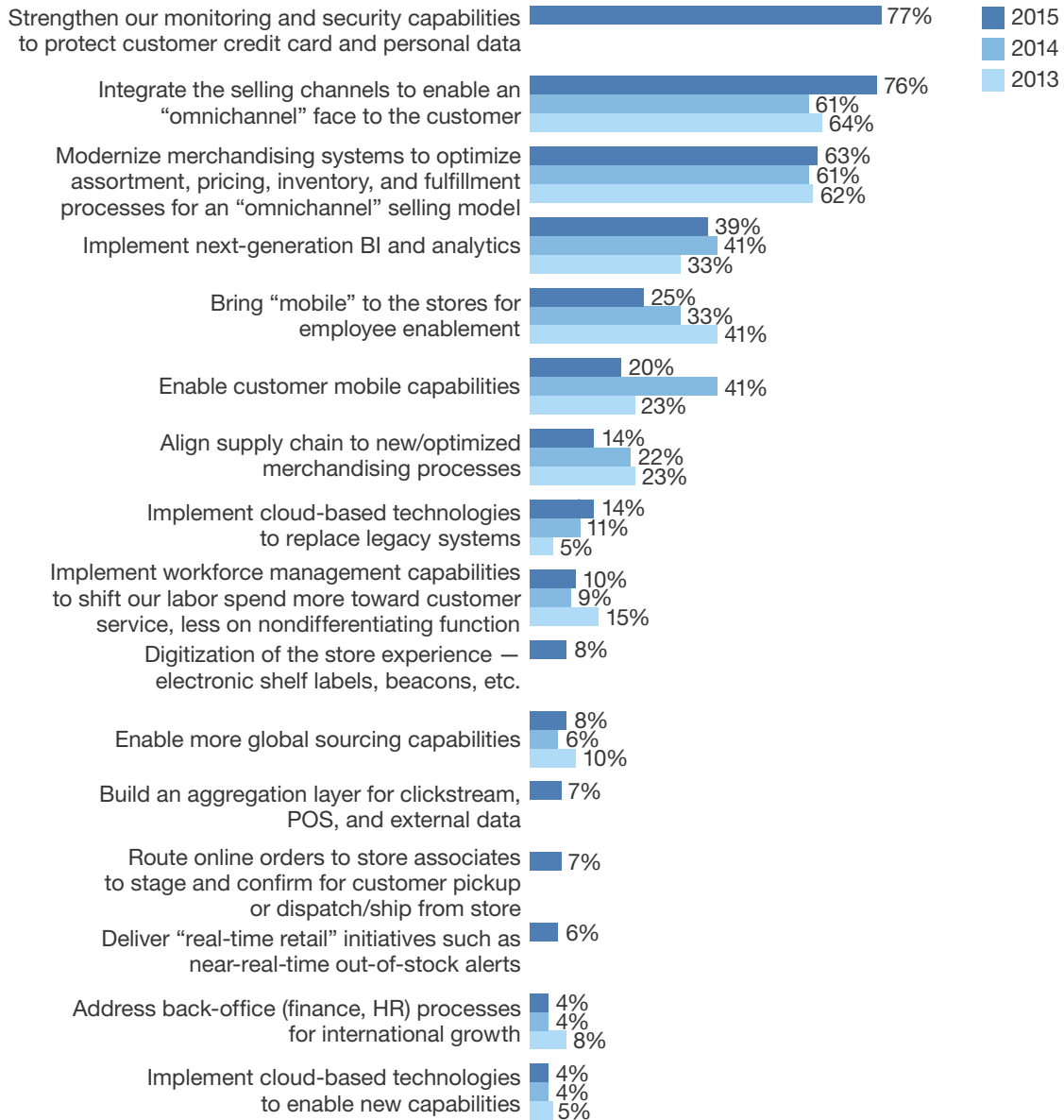
“Data governance is going to be really important — having a real and honest conversation about what your internal data governance policy is and about how the data is used and what happens to you if the data is misappropriated.” (Member of the NRF CIO Council)

- **Upgrade point-of-sale (POS) systems.** Retail CIOs also ranked POS upgrades among their highest-priority technology projects in 2015 in pursuit of their omnichannel objectives. Almost all the CIOs surveyed are engaged in Europay, MasterCard, and Visa (EMV) compliance projects, and most are confident of meeting the October 2015 deadline, with 66% expecting to be in pilot or partial rollout by then (see Figure 6). CIOs expressed concern that US banks weren’t going far enough by just implementing chip and signature and expected retailers to take their own measures to better secure data and safeguard against fraud. One-third of CIOs explained that they were executing three in-store projects simultaneously — EMV, P2P encryption, and mobile payments or near field communication (NFC) — in order to drive differentiated “guest experiences.”

“Our objective is to provide a compelling guest experience. POS is merely a placeholder name for a guest experience project. When you hear POS, you think of the box itself — rather than what connects our guests to our associates in the most effective way.” (Member of the NRF CIO Council)

**Figure 4** CIOs Prioritize The Growing Urgency Of Assorted Omnichannel Challenges

**“From the following list, please choose your company’s top three business priorities for IT in the next 12 to 18 months.”**  
(Please choose a maximum of three.)



Base: 84 retail CIOs/IT executives

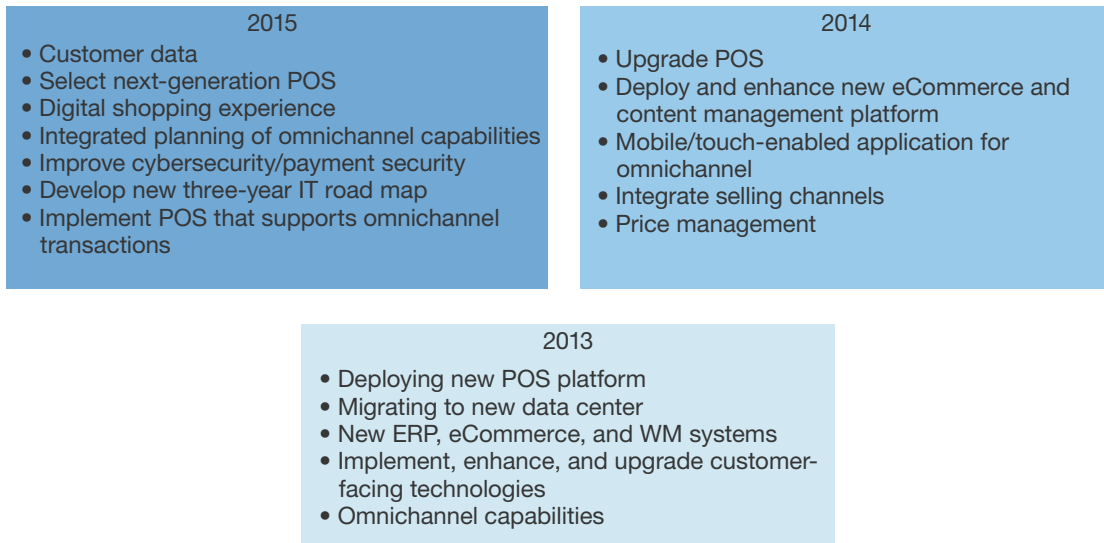
Source: NRF CIO Council Agenda Surveys, 2013 to 2015

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**Figure 5** Customer Data Tops The 2015 List, But POS Upgrades Remain A Priority

**“Please describe the three to five highest-priority technology projects for your company in 2015 (for example, ‘implementing responsive design’ or ‘upgrading POS with provider Y,’ etc.)”** (Please be as descriptive as possible.)



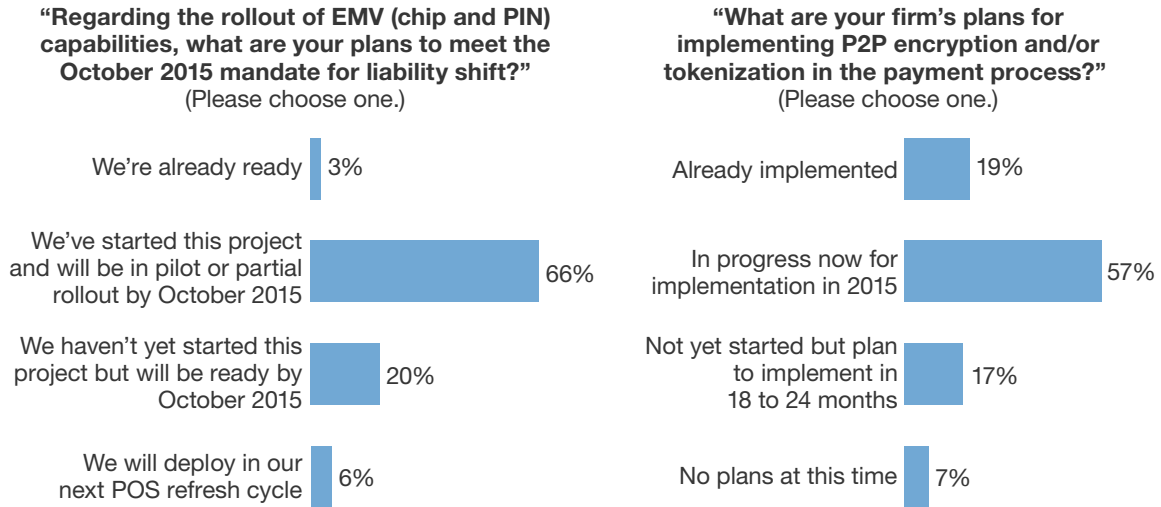
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**Figure 6** US Retail CIOs Are Confident About Meeting The EMV Deadline



Base: 84 retail CIOs/IT executives

Note: Responses from firms whose EMV plans are not established yet have been omitted.

Source: NRF CIO Council Agenda Survey, 2015

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WHAT IT MEANS

**RETAIL CIOs PURSUE A SHARED AGENDA**

Retail CIOs understand that they must rise above their traditional focus on project- and service-level delivery to help their brands adapt to a new world of customer empowerment. 2015 will be a defining year for them as they work side by side with their business peers — especially CMOs — to:

- **Create a shared business technology innovation agenda.** The requirement of maintenance is real, but so is the need to innovate. CIOs will link arms with CMOs and other business peers to create a comprehensive business technology innovation agenda that focuses on solutions that help win, serve, and retain customers. The agenda will support line-of-business, marketing, and in-store innovation, as well as innovation in the data center. Expect fast proofs of concept within a governance umbrella driven by the brand’s objectives and more outside perspectives to spark ideas. One CIO noted using an advisory board of noncompetitive retailers and digital consultants to help drive the innovation agenda, while another even tried a temporary “CIO swap” to bring fresh perspective to the business.
- **Design systems of engagement that deliver a compelling customer experience.** Future marketing innovations and streams of data likely to yield insight are so unpredictable that CIOs cannot afford to think in simple terms about applications like POS, eCommerce, or

order management. Instead, they will develop an aggregation layer from which to drive insight into systems of engagement that deliver highly personalized customer experiences. CIOs and their teams will need input from CMOs, customer insights professionals, and other line-of-business peers who understand what their customers expect throughout their overall journey and life cycle with the brand.

- **Re-assess partner and technology portfolios.** To release funding and time for innovation, CIOs will review the match between their core competencies and all the claims on their resources. Expect mundane IT activities such as infrastructure management or sunsetting applications to be outsourced. Meanwhile, they will look for new design and development skills to bring in-house, offering new resources for line-of-business peers to partner with. That doesn't mean CIOs will ignore legacy apps. New, innovative systems of engagement will fall flat if they can't work with legacy applications that manage vendors and merchandise.

## SUPPLEMENTAL MATERIAL

### Methodology

The National Retail Federation (NRF) and Forrester Research annually survey retail CIOs regarding their key areas of focus. The NRF CIO Council Agenda Survey, 2015 was fielded in December 2014 and included questions about reporting lines, budgets, and respondents' project priorities for 2015.

The NRF/Forrester survey resulted in 84 complete and partial responses. Respondents included executives in apparel and accessories, books and media, department stores, footwear, health and beauty, home furnishings and decor, sporting goods, and specialty store retail categories.

Forrester also reviewed and discussed the results with the NRF CIO Council at a private session and conducted a public panel discussion at the NRF BIG Show in January 2015.

## ENDNOTES

<sup>1</sup> Email Addresses And Passwords, Credit Card Numbers, Social Security Numbers, Account Log-In Credentials, And Other Personal Information Are All Data That Cybercriminals Can Use To Commit A Wide Range Of Crimes, From Identity Theft To Fraud To Reselling In The Underground Market Economy. Cybercriminals Can Also Use Compromised User Machines As A Launching Pad For The Distribution Of Malware Or As A Conduit For Other Malicious Cyberactivity. See The August 6, 2014, "[The Cybercriminal's Prize: Your Customer Data And Competitive Advantage](#)" Report.

<sup>2</sup> Digital disruption means that current homegrown and spreadsheet approaches will fail to cope with contracting product life cycles and vastly increased ranges of merchandise. See the September 5, 2013, "[Retool Your Retail Applications To Thrive On Digital Disruption](#)" report.

- <sup>3</sup> High-quality customer data is required to support every point in the customer journey. The right customer information in context allows companies to deliver positive customer experiences, which can increase customer loyalty and revenue. Yet data management capabilities in customer relationship management (CRM) applications are not sufficient to manage data quality, especially when companies use multiple systems of record, have complex account hierarchies, or require sophisticated customer intelligence and customer views for engagement and processes. See the November 25, 2014, [“Better Customer Relationships Require Trusted Data”](#) report.

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« CAROL ITO, client persona representing CIOs

