



C-Store Technology Insight

Insight Report

**Report: Lessons Learned from COVID-19
and What's Ahead for C-Stores**

A new paradigm

COVID-19 brought all sense of normalcy to a standstill, forcing retailers, hospitality businesses and restaurants to suddenly close their doors. While others shut down their operations, convenience store retailers were deemed “essential” and have been positioned at the frontlines since the beginning of this pandemic battle. Just as their grocery store counterparts, c-store offerings and services have been critical in serving consumers during this time.

As c-stores remained opened, they worked furiously to adapt to the new reality in front of them. This meant they had to critically review their technology priorities and initiatives so they could safely continue operations, serve shoppers with social distancing measures and create a clean and frictionless environment as they adopted new CDC guidelines.

However, convenience store retailers had been facing technological challenges even before COVID-19. A c-store retailer survey we conducted in 2019¹ demonstrated that the majority of c-store retailers at that time faced IT barriers when trying to adapt their store footprints:

- 96% of c-store directors and IT managers agreed that if it was easier to implement new applications and services, they would do so more often.
- Only 49% of respondents said their current store IT infrastructure was an engine for innovation and delivering new in-store customer experiences.

While real concerns existed last year, it's become clear to all of those in retail: COVID-19 has accelerated the need for change and, with this new reality, c-stores are reexamining what's possible and, more important, what's necessary to ensure their success.

As some parts of the world ease restrictions, Censuswide on behalf of NCR, polled c-store retailers across North America to identify how technology priorities have shifted amidst the pandemic. The survey uncovered lessons these retailers have learned during this time and what's in store for the future of convenience store technology.

The key takeaway: Legacy equals lagging behind

The majority of c-stores have faced IT obstacles during the pandemic as they looked to change some of their operations to effectively serve their customers in the "new normal."

63% of respondents said legacy infrastructure held them back from making changes and identified that an inflexible infrastructure delayed the speed at which they would have liked to adapt their store operations.

Methodology: Survey was conducted by Censuswide on behalf of NCR, which polled 103 senior level U.S. IT managers and business directors from large convenience and convenience fuel retail businesses with store estates ranging from a minimum of 20 to more than 500 stores and average revenue between \$10M to more than \$999M.

¹ <https://www.businesswire.com/news/home/20190904005028/en/37-C-Store-Retailers-Current-Store-Infrastructure-Prepared>

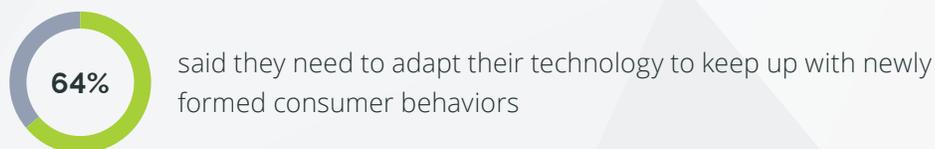
Lessons learned from COVID-19

The past few months of the coronavirus pandemic have merely accelerated many of the technology realizations c-stores were struggling with prior to the crisis. Rising labor costs coupled with day-to-day infrastructure, support and maintenance costs continue to eat into their operational efficiency. In parallel, the rapid changes in consumer buying habits due to social distancing, such as curbside collection, full-service fueling, click & collect, home delivery, grab & go and more, continue to place pressure on convenience fuel retail businesses.

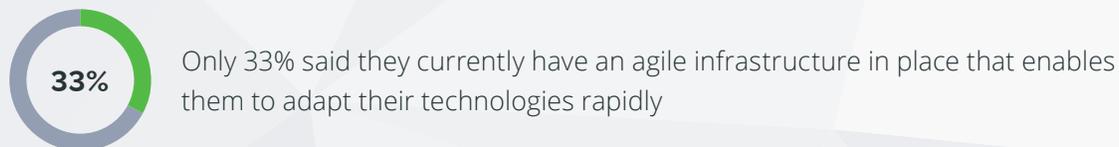
The survey—which polled 103 senior level U.S. IT managers and business directors from large convenience and convenience fuel retail businesses with store estates ranging from 20 to more than 500 stores—identified the most notable technology lessons c-stores have learned during this time.

Lesson One: Technology takes center stage

The pandemic has changed the face of customer buying habits permanently. C-store retailers have realized their current technology needs to evolve, and quickly, in order to meet those new expectations:

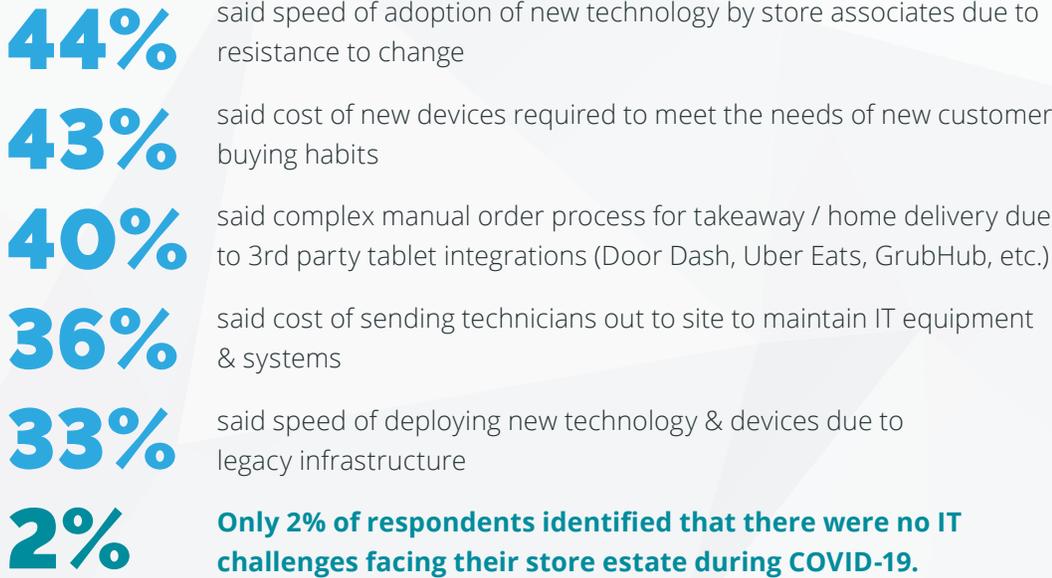


Lesson Two: Technology maturity can either hinder or propel c-stores' ability to adapt to new customer buying habits



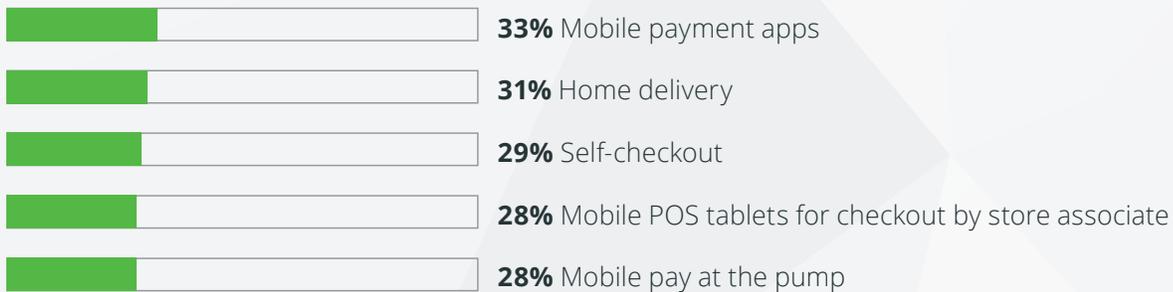
Lesson Three: Speed, cost and complexity of IT are slowing innovation

When asked about the main IT challenges faced during COVID-19, the overall impact on staff productivity, speed to market and ability to quickly remediate store IT issues is compelling:



Lesson Four: Mobile technology is a must-have for c-stores, but legacy technology poses barriers

When asked which technologies they have been UNABLE to implement quickly enough to meet their business objectives in response to COVID-19, c-store retailers identified the following:



A Note on Delivery:

COVID-19 has accelerated the popularity of delivery companies such as Uber Eats, Favor, DoorDash and GoPuff. In fact, according to a recent [CBRE report](#), over a third of adults in the U.S. and half of millennials are more likely to order food for delivery compared to two years ago; indeed, third-party delivery sales are expected to increase to 70% by 2022, up from 37% in 2016.

Many c-stores have been forced into using multiple devices supplied by the delivery companies, resulting in inefficiency and confusion for front and back of house. Lost orders and poor reconciliation of accounts have been a regular pain point for store managers and store associates as they struggle to adapt quickly.

To provide a more efficient process and boost staff productivity, c-stores should take a “less is more” approach and virtualize the in-store IT ecosystem to reduce the number of devices to just one, yet run multiple applications from the same device. This will improve efficiency, security and overall operations while minimizing c-stores’ IT footprint.

The future of c-stores

While some social distancing restrictions may be easing up, consumer buying habits and perspectives have forever changed.

For example, a recent consumer survey conducted by NACS² found, "Consumer interest concepts like cashierless checkout, curbside pickup and delivery has grown, and all have attracted more interest over the past four months. Consumers also say that time savings is most important, with safety emerging as a second choice. Overall, safety benefits were cited by 41% interested in cashierless checkout, 38% of those seeking curbside food pickup and 27% of those who like food delivery."

As convenience stores emerge from the pandemic, technology will be a vital tool to help them progress and continue to offer consumers the safe and frictionless experience they expect.

The survey demonstrated that c-store retailers will be focused on the following technological initiatives moving forward:

Moving Forward: Use technology for a frictionless c-store experience

When asked which technologies c-store retailers considered important for their future, many focused on making more checkout options available to customers (by order of importance):

- « Home delivery (86%)
- « Order online pick up curbside (85%)
- « Self-checkout (81%)
- « Full-service fueling by store associate (81%)
- « Mobile POS tablets for checkout by store associate (80%)
- « Scan & Go (80%)
- « Touchless checkout (77%)

Moving Forward: Technology to evolve and propel c-store operations

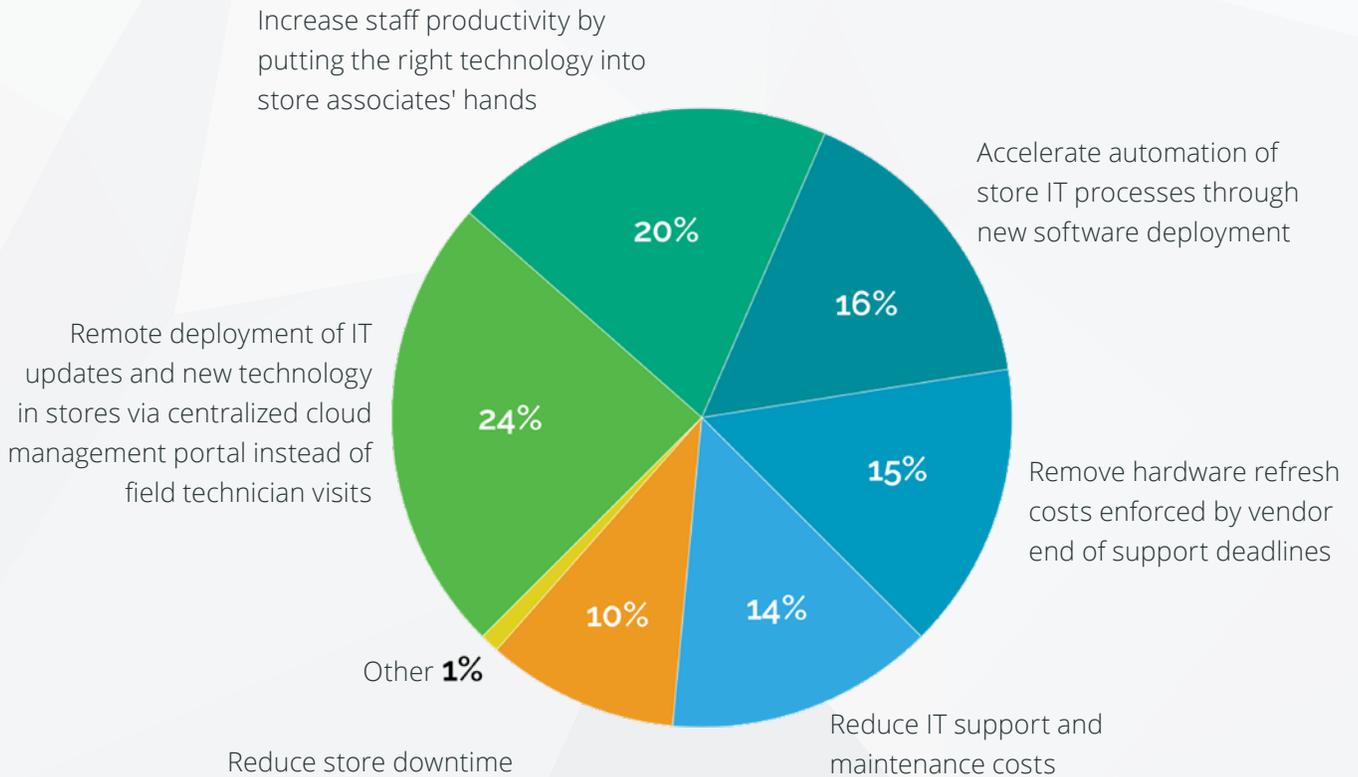
Post COVID-19, c-store retailers specified a number of projects they will be looking to implement:

- « Automate more store IT processes to improve efficiencies
- « Upgrade their customer loyalty program
- « Refresh POS infrastructure to deliver more checkout options
- « Support EMV deployment
- « Enhance the security and compliance of in-store IT
- « Reduce the impact of vendor dictated end-of-support deadlines on hardware
- « Support new store openings (organic or through acquisition)
- « Improve staff productivity through technology

² https://www.convenience.org/Media/Daily/2020/May/27/1-C-Stores-Ready-to-Serve-Commuters_Research

Moving Forward: Technology is the catalyst for reducing operational costs

Maintaining margins as c-stores rapidly adapt to market changes is complex—even more when rising labor costs and social distancing measures are impacting retailers' ability to reduce costs in the business. Looking to the future, c-store retailers believe their IT can make the biggest difference in not only reducing cost to serve in the future, but also in delivering ability to swiftly adapt to changes in the following areas:



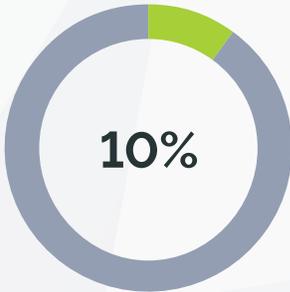
Moving Forward: Overcoming barriers to change

C-stores, however, face obstacles as they look to evolve post-pandemic. When asked about the biggest IT barriers to making these changes within their organization, respondents identified:

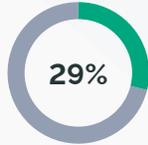
- 37%** Poor interdepartmental communication to agree upon the business need
- 36%** Business culture resistant to change
- 33%** Desire to wait and assess full learnings from COVID-19 before making any changes
- 33%** Complexity of legacy IT
- 31%** Lack of available IT resources due to maintaining everyday business

Moving Forward: POS as the foundation for change

As c-stores continue to review their IT ecosystem and plan for the future, they are recognizing that change begins with their POS infrastructure; however, they want to invest in technology that gives them maximum flexibility in the long term.



Only 10% of respondents say they have the exact POS infrastructure that will serve the business now and, in the future



seek a solution that will keep their legacy POS running with minimal cost while they see how checkout needs evolve



want to refresh their POS now but are concerned the investment may have to be



repeated again as consumer purchasing habits continue to change



Solving c-store cost challenges

The value of convenience has never been higher. As restrictions ease, NACS VP of Strategic Industry Initiatives, Jeff Lenard, put it eloquently:

“The return of more commuters is certainly good news for the convenience store industry, which sells 80% of the fuel purchased in the country, and food and beverages that are the staple of rush-hour routines. Retailers look forward to providing those everyday essentials and are continuing to enhance operations with a focus on cleanliness and safety.”³

By minimizing touchpoints through technology, c-stores can let customers know they can be trusted with their health and safety. To fulfill this promise, serve and remain relevant, however, c-stores will need to continue to adapt their store technology, fast.

The impact of COVID-19 will mean c-stores need to find a way to evolve their cost structure as inevitably costs are going to rise. In the past year alone, labor costs in the convenience fuel retail industry have risen 7.2% and direct store operations costs 6%.⁴ Implementing store technology changes to meet the demands of new customer buying habits is not an easy task when these underlying costs continue to rise. Nevertheless, stores must find a way to solve these cost challenges.

The advantages of software defined stores

This can leave c-stores in a quandary: Most simply don't have the time, resources or funds to invest in a complete IT overhaul. But they recognize that to do nothing is not an option. Moving to a software defined store strategy provides the solution.

Software defined stores use virtualization technology specifically built for the retail edge, enabling c-stores to optimize their existing store IT stack while migrating the store estate to a more open, agile and scalable infrastructure. This is achieved by breaking the connection between hardware and software, giving retailers the ability to modernize stores at their own pace, with less cost and with less risk. Instead of having software scattered across multiple touchpoints, it now resides on a virtualized edge server inside the store. A centralized control console runs in the cloud to manage the in-store virtualized servers.

By virtualizing all these store touchpoints, retailers are free to upgrade hardware and software independently, add new technologies faster and deploy new stores easier than ever before.

Virtualization of front and back office store applications can be a game changer. All patches, updates and upgrades of a software defined store infrastructure can be automated, ensuring c-stores have a more secure and consistent system. In addition, remote centralized control and management of store infrastructure reduces expensive technician site visits as well as earlier identification and remediation of store IT issues.

³ https://www.convenience.org/Media/Daily/2020/May/27/1-C-Stores-Ready-to-Serve-Commuters_Research

⁴ <https://csnews.com/industry-report-2020-little-time-celebrate>

Ultimately, it's about having the flexibility to adapt quickly. And this is where software defined stores will be leapfrogging the competition. Whether automating online order fulfillment, launching curbside pickup and home delivery or re-designing the stores for more self-checkout, speed to market is essential.

"Store IT infrastructures today are complex and expensive to maintain. By shifting our store infrastructure from a hardware centric to a software focused approach, we will be able to increase our speed-of-service, quickly deploy upgrades across our network of stores and add new features and innovations including cloud-enabled services across our chain,"

Mike Rogers, Chief Strategy & Information Officer, Pilot Flying J.

NCR SOFTWARE DEFINED STORE

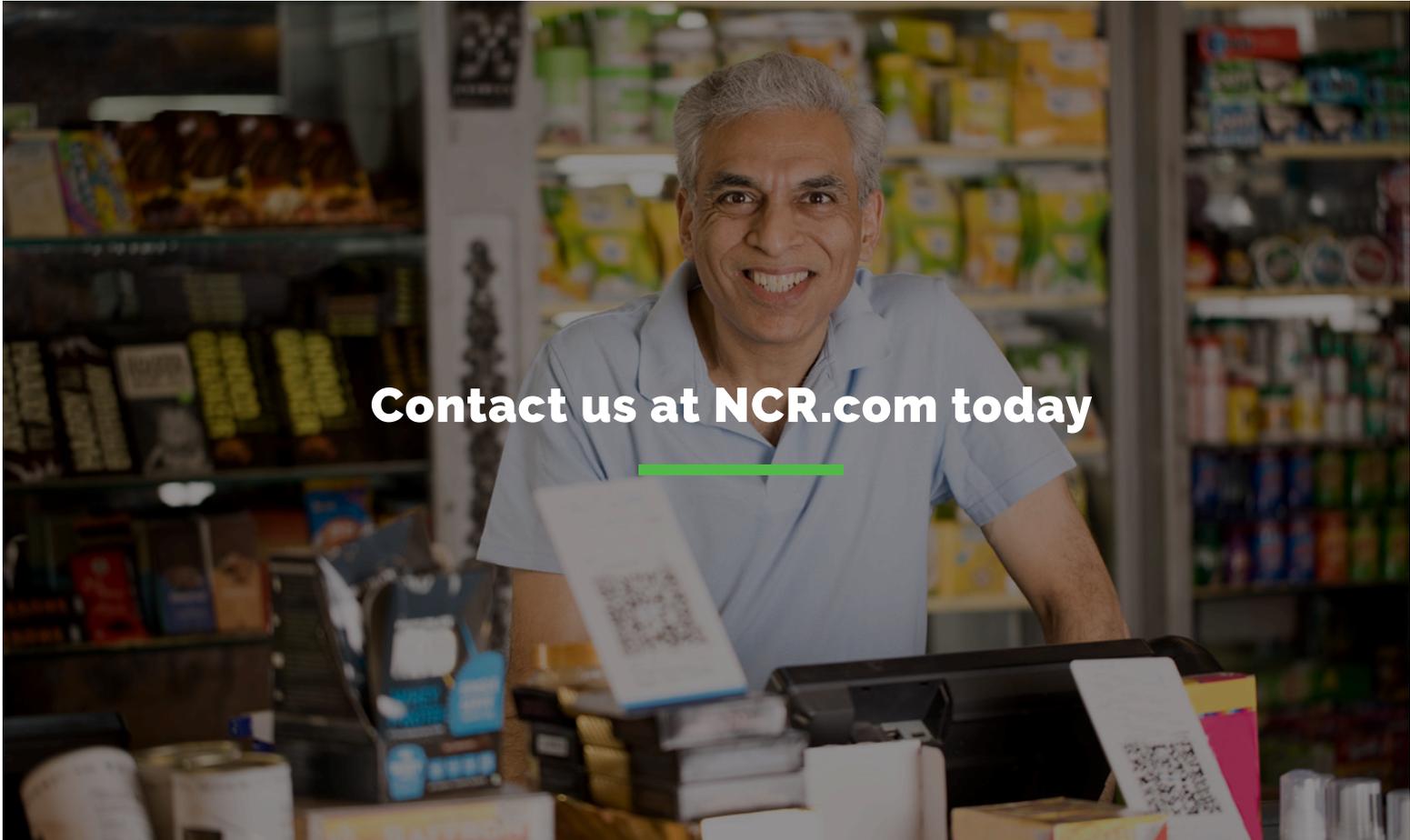
Moving Forward: What's Next

With social distancing restrictions lifting, c-stores' technology plans will allow them to maximize revenues during the anticipated increase in holiday road trips forecast due to air travel limitations and low fuel costs:

- 45%** plan on investing in new technology to drive upsell promotions from multiple touchpoints in the store and at the pump
- 42%** plan to test full-service fueling with temporary staff during summer holiday period
- 34%** will invest in portable devices for staff to drive curbside collection and payment
- 32%** plan to invest in self-checkout

"Virtualization technology drives change in the store and is a key part of our business strategy. By removing hardware dependencies we gain more flexibility, improved TCO and standardization of stores with better manageability and configuration."

Edward Dzadoovsky, VP North America IT, Circle K.



Contact us at [NCR.com](https://www.ncr.com) today

NCR SOFTWARE DEFINED STORE

NCR delivers market leading store infrastructure and applications at the Retail Edge, designed to help retailers worldwide evolve faster on a lower cost curve. This leadership was further enhanced by the acquisition of Zynstra in 2019, a specialist software company delivering Software Defined Edge infrastructure for retail with patented, unique IP and global scale enterprise deployments. Zynstra's IP is embedded in an Edge and Cloud microservices strategy for all retail applications and at the core of the NCR Commerce Platform.

About NCR

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