In the new normal for retail, seamless omni-channel experiences are essential to success. Retailers must adapt their operations to provide the unified experiences that today's consumers desire.

Uniting the Physical and Digital: How Trusted Connections Drive Adaptability for Today's Successful Retailer

March 2022

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Introduction

A perfect storm of business, technology, and consumer developments in the past two years has led to significant change in today's retail environment. Technology trends such as the increasing embrace of multicloud solutions, greater availability of 5G/Wi-Fi 6, and the need for greater network agility combined with the shift in consumer demands for personalization and contactless/touchless experiences are driving a change in what retailers must do to be competitive and successful.

In today's new normal for retail, seamless omni-channel experiences are essential to success. The blending of digital and physical retail is foundational to obtain greater overall customer satisfaction and operational efficiency. Retailers must provide the unified experiences that today's consumers desire, including BOPIS, curbside pickup, automated checkout, contactless payments, and mobile POS. But more importantly, everything needs to work seamlessly to provide an elevated overall customer experience. To stay agile and nimble, retailers need to be adaptable. Many are now realizing that if they want to stay in the game, **they need to invest in their digital backbone with trusted connectivity and edge computing solutions that can help them adapt to change and drive positive business outcomes.**

What's Needed to Achieve Omni-Channel Success

Legacy infrastructure was not designed to be scalable or modular to support the always-on, real-time, data-heavy retail applications and capabilities that are essential for success in today's omni-channel landscape.

The pandemic amplified the importance of adaptability for retailers, and as new patterns and preferences quickly emerged, retailers raced to accelerate their digital-first strategies. To remain competitive, retailers need mechanisms that allow them to access, analyze, and manage vast amounts of data across business operations, both at the physical site and for remote workers. Some retailers have already been responding to this need. According to an IDC survey, more than 50% of retailers said they plan to boost investment in business agility (internal IT investment in connectivity to improve business efficiency and performance) and operational agility (employee-focused connectivity investments

AT A GLANCE

KEY TAKEAWAYS

» Retailers need strategic partnerships with communications, cloud, and infrastructure providers to help maximize adaptability across all areas of their organizations.

» More than half of all retailers globally are planning on boosting technology investments in business agility and operational agility in 2022.

» Organizations increasingly see adaptability as imperative for success and growth in today's environment, and many (87%) already have a digital-first strategy.

to drive productivity) over the next 12 months (IDC's *Future Enterprise Resiliency and Spending Survey, Wave 10,* November 2021). Additionally, improving customer experience and customer satisfaction (i.e., customer agility) is one of the top enterprise connectivity priorities across all industries (IDC's *Future of Connectedness Survey,* July 2021, n = 607).

Adaptability enables retailers to implement solutions that allow for better personalized experiences for customers across all retail channels. For example, some major grocers globally have implemented digital shelf labels that allow customers using mobile checkout devices to gain current pricing, product information, and product recommendations for a more personalized experience and increased loyalty. Retailers also are enabling personalized fulfillment options, including curbside pickup or same-day delivery from the closest store to the customer.

Transforming the Retailer into an Adaptable Enterprise

The new hybrid and distributed workforce has made trusted connectivity a cornerstone, and organizations are shifting quickly to maintain this new level of adaptability.

Organizations increasingly see adaptability as imperative for success and growth in today's environment, and many (87%) already have a digital-first strategy. The foundations for adaptable retailers include the four agility cornerstones of connectedness (see Figure 1).

FIGURE 1: *The Connected Enterprise*

The Connected Enterprise Is Agile and Adaptable to Change
Technology Priorities Should Embed Human-Centric Elements and Benefits

Automating connections and data flows with partners accelerates time to revenue.

Value Chain Agility

Empower partner involvement to grow revenue

Business Agility

Improve business performance to strengthen competitive position

Virtualization, automation, cloud, and edge drive network/IT efficiency.

FUTURE OF Connectedness

Digital, intelligence-driven connections to customers drive CX and revenue.

Customer Agility

Increase revenue through intelligent interactions

Improve workforce efficiency and automation

Operational Agility

Unified communications and real-time data anywhere, anytime empower the organization.

Source: IDC, 2022

Attributes of the adaptable retailer include the following:

» The ability to create differentiated customer experiences that are personal, emotional, and consistent across omni-channel environments through digital technology investments and innovation while keeping security at the forefront

» Investing in technology designed to increase business resiliency and enable an "always-on" environment while driving scale and capacity

» Forging strategic partnerships with communications, cloud, and infrastructure providers to help maximize adaptability across all areas of the organization

» Proactively investing in modern digital infrastructure that keeps critical data in motion and allows analysis and use of real-time data anywhere across the organization

» Committing to achieve a digital-first approach by enabling a human-centric approach

Benefits Enabled in an Adaptable Enterprise

The following benefits are the result of building an adaptable enterprise:

» **Increased agility and scalability**

■ Easily add, change, or scale up omni-channel retail applications at a lower cost without risk of performance issues.

■ Ensure infrastructure capacity can support retailer experiences even as unexpected spikes in demand add stresses.

» **Enhanced security**

■ With the exponential growth of IoT data from solutions such as POS and loss prevention technologies, retailers can expand the security footprint across the entire technology landscape, resulting in a better protected and secured business operation.

» **Increased efficiency and reducing costs**

■ Unified high-performance applications for customers, employees, partners, and everyone connected to the supply chain can result in efficiencies such as real-time inventory or cold chain monitoring.

■ Automation across business operations helps drive down costs and increase process efficiencies.

» **Elevated customer experience**

■ Faster, easier, secure, and personalized brand experience can improve the overall customer experience.

■ Optimized new applications and features drive brand loyalty that shoppers want, such as curbside pickup or self-checkout.

» **Enhanced associate experience**

■ Faster access to data can lead to better associate service and experience.

■ High-performing, always-on applications support critical business functions.

Industry Trends

The following prevailing trends are shaping the industry:

» **Drive to seamless, contactless omni-channel retail.** The applications customers learned to love during the pandemic, such as curbside pickup, BOPIS, "just walk out" checkout, and contactless payments, are here to stay.

- ■ Growth of data-heavy applications, such as cold chain monitoring or advanced real-time inventory, means much more data to secure, analyze, and manage. Focus on customer experience and loyalty requires secure, reliable, trusted connectivity.

» **Heightened security concerns throughout retail operations.** There is an increased focus on customer data security and maintaining overall security of more and more data across cloud, edge, and IoT applications.

- ■ Data security was the number 1 connectivity challenge for retailers, according to IDC's 2021 *Future of Connectedness Survey.*
- ■ There was a significant increase in retail fraud in 2021 (including returns fraud, payments fraud, and data breaches); retailers are concerned and boosting investments to secure data and systems.
- ■ Securing data throughout operations and proactively mitigating threats are critical for retailers.
- ■ Increasing emphasis on loss prevention and detection continues to factor in security initiatives.

» **Focus on improving associate experience and productivity to manage costs and labor shortages.** Retailers are investing in technologies such as connectivity and automation to attract and retain talent.

- ■ Next-generation digital connectivity can lead to enhanced operational efficiency, lower costs, and fraud reduction.
- ■ Alleviating the frustration that associates feel as a result of slow or nonworking applications essential to their jobs can lower employee attrition and enhance associate loyalty amid today's labor shortages.
- ■ Boosting efficiency with automation can alleviate labor shortages and enhance employee satisfaction.

Figure 2 illustrates the application of these trends in a future connected enterprise.

FIGURE 2: *The Future of Connectedness*
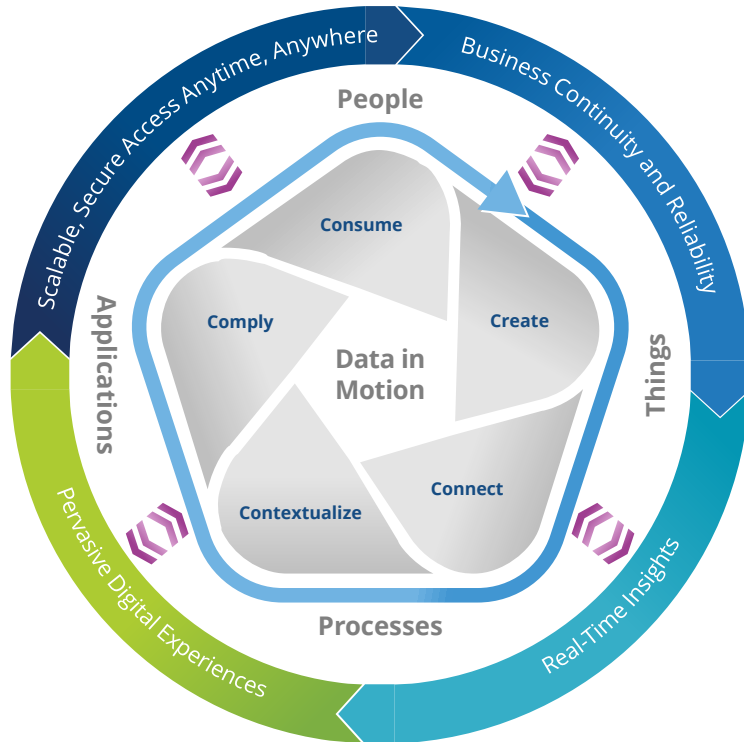
Source: IDC, 2022

Considering Lumen

Lumen works with enterprises of all sizes and across industries through a customizable service offering that matches an organization's digital operational capability with the appropriate level of support. For more digitally advanced companies, Lumen edge application delivery is available in a purely self-service model. For companies that cannot yet stand up and manage complex IT architecture on their own, Lumen offers fully managed or comanaged service models.

Lumen's portfolio addresses many of the pain points of today's omni-channel retailer with the following features:

» **Hybrid and adaptive network.** This network allows retailers the scalable, high-bandwidth connectivity they need for critical data and applications along with **software-defined networking** that can intelligently adjust to real-time capacity needs and allow for seamless connections to cloud providers.

» **Cloud enablement and edge computing services.** By enabling IT agility and security with seamless cloud connections and edge computing infrastructure, these services can accelerate data processing in the cloud and at the edge and enhance customer experiences.

» **Integrated technology, application, and data solutions.** These solutions can help harness data for enhanced insights on a platform that includes infrastructure, end-to-end network security, monitoring, and support.

» **Analytics and advanced threat management.** This portfolio of solutions can provide features such as adaptive threat intelligence, enhanced cybersecurity solutions, and security log monitoring.

» **Network and on-premises security services.** These services can deliver support for data and voice solutions and detect, protect, and respond to security threats.

» **Content delivery services.** These services include delivery of video, applications, software, and more on a highly connected content delivery network.

» **Managed services and consulting.** This category includes a range of managed services such as disaster recovery services, managed hosting services, and professional services as well as IT consulting services.

Challenges

Retailers face increasing complexity as new digital infrastructure implementations expand across the organization. As edge, cloud, and networking/connectivity become pervasive, retailers can avoid integration issues by working with vendors that have extensive knowledge and experience with retail-specific operations and implementations.

With edge computing and cloud implementations, security can be a critical concern due to the distributed nature of edge with data in many locations. However, security issues can be addressed by keeping in mind best practices, such as designing multilayer security from the start. Again, choosing vendors with retail-specific expertise can go a long way to alleviating this challenge.

Conclusion

Retailers are embracing a strategy that makes them adaptable to facilitate customer demands and provide services such as BOPIS, curbside pickup, automated checkout, and contactless payments. To gain operational excellence, retailers need to pursue adaptability as a blend of technology solutions and retooling of business functions and processes. Only then can brand loyalty and elevated customer experience and retention be achieved.

Today, retailers are realizing the importance of investing in their digital backbone by building scalable edge computing with a trusted partner; in this way, retailers aim to be more adaptable, allowing them to succeed in the always-on, omni-channel world.

About the Analyst

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Margot Juros is a Research Manager for IDC Retail Insights responsible for the Retail Technology Strategies research program. Ms. Juros' core research focuses on best practices, trends, market conditions, business concerns, and vendor offerings to provide authoritative advice on investment, life-cycle management, and the use of technologies for modern IT infrastructure.

MESSAGE FROM THE SPONSOR

Lumen is a technology company that enables organizations to benefit from emerging applications that power the 4th Industrial Revolution. We deliver the fastest, most secure platform for next-gen applications and data to help retailers deliver amazing experiences that help grow revenue, gain operational efficiencies, and win customer loyalty.

Lumen solutions integrate network infrastructure, cloud connectivity, edge computing, connected security, voice, collaboration, and enterprise-class services into an advanced application architecture across industries. As technology advances the way we live and work and as data is dramatically shaping the future, Lumen is working relentlessly to unleash the potential of data, leading to more capable and efficient edge computing and pervasive technologies across devices, systems, and workloads.

Learn more about how Lumen supports retail customers, visit: www.Lumen.com/retail.

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