

360°

Business & IT Transformation Insights from Pivot



Taking Retail Customer Experiences to the Edge

Edge computing can transform the experiences of your customers. But do you have the right edge strategy?



Jeff Jennings

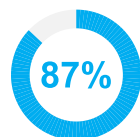
Pivot Director of Network Optimization

Consumer behaviors have shifted – from in-store to online shopping, from brand loyalty to relationships of convenience. In response, retailers are pivoting from peddling products to promoting experiences.

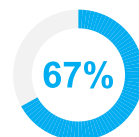
But in a few short months, customer experiences have been turned upside down. And it might be a long time before shoppers return to familiar ways of interacting with your brand. That has smart retailers rethinking their experience strategies. They're looking to emerging technologies for better customer connections. (See the Figure.)

Figure: The Nexus of Technology and Customer Experiences¹

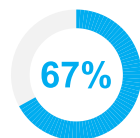
Customers say...



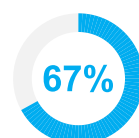
Experiences are as important as products and services



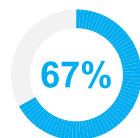
Emerging technologies are changing their expectations of companies



The way a company uses technology indicates how it operates in general



A single great experience raises their expectations of other companies



They expect connected experiences



Marc Fowler

Pivot Principal Business Consultant

In particular, they're leveraging edge computing to move brand interactions closer to the consumer for better service, more lasting relationships, and new revenue streams. But to apply edge technologies to achieve those goals, you need to understand the capabilities available – and how to deploy them to optimize experiences in your unique business environment.

Taking Information Resources to the User

Edge computing is a distributed paradigm that extends compute power, data collection, and application delivery – with ultralow latency – close to where it's needed by either employees or customers.

“Edge technologies include devices, sensors, networking, and remote applications,” says Jeff Jennings, director of Network Optimization for Pivot. “They also involve private LTE small cells that provide device-based application security to smartphones, tablets, point-of-sale (POS) terminals, and internet-of-things (IoT) devices.”

The intention is to accelerate interactions, provide new services, and improve customer satisfaction. “Organizations can use edge technologies not just to optimize existing processes,” explains Marc Fowler, principal business consultant for Pivot. “They can also gain new capabilities such as tighter application security, augmented and virtual reality, personalized marketing, and completely new customer experiences.”

Edging Ahead of the Competition

Retailers across segments are applying edge computing to transform various aspects of their operations. One example, Fowler says, is a telecommunications giant that deployed edge technology in its retail stores.

The stores are set up without checkout stations or traditional cash registers. Instead, sales associates are equipped with tablets that act as POS devices.

“The mobile POS approach allows sales associates to better serve customers, with personalized attention and opportunities for cross-sell and upsell,” Fowler notes. “It also gives them instant access to the company’s inventory management system.” Additionally, it provides customers with a fast, hands-on, and friction-free sales experience.

Achieving those capabilities required a hybrid networking solution that combines WiFi and small-cell, private LTE networking. The company implemented Intel® SmartEdge, a multi-access edge computing (MEC) solution that enables a powerful cloud to be placed at the edge of the network, close to the user.

The WiFi network allows customers to easily try out product features. Because they can test drive devices, they’re more likely to be satisfied with their purchase.

The LTE network gives sales staff fast, secure access to customer profiles, credit scores, and targeted marketing such as eligibility for upgrades. It also enables fast, secure sales transactions.

The retailer is also able to cache mobile operating systems (OS) in the store for fast downloading to devices as customers purchase them. In fact, stores reduced OS update times from a lengthy 18 minutes down to only three minutes.

“The solution provides simplicity for ease of use, low latency for fast performance, and security to protect sensitive data,” Fowler says. “More fundamentally, it gives the telecom a competitive advantage.”

Service With an Edge

In the automotive sector, a global brand is using edge technology at retail sales locations to improve service and repair processes and experiences.

Car dealerships realize greater profits from ongoing maintenance and repair services than they do from initial car sales, Jennings points out. So optimizing service operations is business-critical. “The faster they can turn over service bays, the higher their revenues,” he says. “And the faster they can get customers in and out of the service center, the higher the customer satisfaction – and retention.”

Cars and trucks are increasingly built around software and firmware. Onboard computers perform and manage an ever-growing number of vehicle functions. That in-vehicle technology needs to be updated regularly for proper operation and monitoring.

When customers bring their cars in for service, the technician must download the latest software and firmware onto the vehicle. But the way dealer networks have been configured, if the download is interrupted for any reason, it has to start over from the beginning. As a result, a 15-minute download can end up taking two hours.

That keeps the car in the bay and limits the number of cars the dealer can service, backing up processes and reducing revenues. It also makes customers wait longer for their cars, eroding customer satisfaction and, potentially, future business.

The solution was innovative edge technology that optimizes downloads. Vehicle updates are now physically stored at the dealership, reducing download times by 70%, according to Jennings.

“Technicians are more productive,” he says. “Customers get a better experience. And the automaker builds customer relationships and drives greater revenues.”

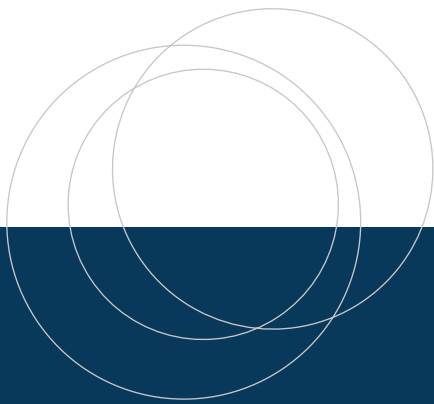
To achieve similar results in their own operations, Jennings recommends that retailers start with user needs. Look for customer points of friction where extending capabilities to the edge can result in better experiences. Then consider worker tasks where edge-enabled process improvement can either boost employee productivity or enable employees to better serve customers.

Next, identify the combination of mobile devices, IoT sensors, networking technology, and secure applications you need to address those needs. If you don’t have the knowledge or resources internally, consider working with an IT partner that has deep experience with edge implementations that have driven business results.

Ultimately, “effective deployment of edge technology should enable you to deliver better employee and customer experiences,” Jennings says. “And in retail, a lot of positive results can flow from achieving that goal.”

Learn more about customer experiences and edge computing at www.pivotts.com.

¹ “State of the Connected Customer,” Salesforce.com, June 2019



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