Overview

Today’s retailers are moving to an omnichannel business model, in which integrated selling takes place in the store, websites, mobile networks, the call center, and through to the final point of sale (POS). To support these channel strategies, stores are looking for new ways to gather metrics such as customer traffic, behavior, dwell times, social media behavior, and services. However, most are still learning how to track and analyze actionable customer and operations data. Based on the Internet of Everything (IoE), Cisco® FastRetail™ solutions—fused with operational, social, hyperlocal, and mobile data by predictive analytics—reveal previously hidden patterns of behavior and new insights. This in turns helps you to:

- Build a data platform to manage and analyze information for omnichannel strategies
- Provide 360-degree visibility into store operations and shopper path
- Improve customer service with location-based analytics to help manage sales, staffing, and associate productivity
- Reduce marketing costs with central management of multiple branch locations
- Drive traffic, upsell, and conversion
Meeting the Challenges of Big Data

Big data offers a powerful and exciting opportunity for retailers, but it can be paralyzing to manage. The scale of information available from the store is staggering—literally millions of shoppers and items per year can be tracked with sensors in thousands of locations. Traditionally, each layer of the retail journey uses a different system to generate different metrics that provide important insights. Now, stores are looking for ways to combine these data streams to find the right metrics to help meet store priorities without becoming completely overwhelmed. This makes data a powerful tool to drive efficiencies and support omnichannel strategies, also referred to as "omnianalytics."

The Solution Architecture

The Cisco FastRetail solution provides a scalable, flexible IoE platform for sophisticated, automated retail analytics, as well as shopper experience and operations optimization applications. By relying on these capabilities, you can create a greater sense of intimacy in the shopper experience while gathering metrics to help improve efficiency across the organization. Based on the same powerful platform, your store can also promote products and provide service to mobile customers. Cisco and our partners provide a comprehensive portfolio of services to help plan, build, and run your retail infrastructure:

- Combines sensor data with predictive analytics to drive new performance benchmarks
- Helps manage your brand’s social equity and engage customers across all touch points
- Optimizes innovative services, layout and merchandising to improve the store experience
- Supports loss prevention, slip and fall response, and much more through behavior detection and prediction
- Optimizes your supply chain processes, reduces out-of-stock inventories, and improves on-shelf availability

A Unified Network Foundation

The Cisco FastRetail solution is built on the Cisco Unified Computing System™ (Cisco UCS®) and servers, which combine computing, networking, management, virtualization, and storage access into a single integrated infrastructure. This unique architecture enables end-to-end server visibility, management, and control in both bare metal and virtual environments. Retailers can also choose the award-winning Cisco Integrated Services Routers Generation 2 (ISR G2) for store-by-store support.

Cisco Prime Analytics

Cisco Prime™ Analytics is a scalable, real-time platform that combines quick and easy network data collection from a variety of sources with one of the fastest streaming analytics engines in the industry. Data sources covered include all types of sensors, actuators, and mobile devices, and business systems, such as POS and customer information, social media feeds, news, weather, service desks and contact centers, subscription data, and much more. They also tap in to the Cisco Prime OSS and network management solutions, third-party element management systems (EMSs), network management systems (NMSs) and domain managers, NetFlow, and others.

Cisco Connected Mobile Experiences

Mobile information gathering is enabled by Cisco Connected Mobile Experiences (CMX), designed to personalize your store’s outreach to mobile shoppers. Some retailers have achieved greater than 10 percent sales lift and dwell times with Cisco CMX solutions, while improving shopping intimacy and analytics capability. The solution includes location-based services that detect where shoppers are and where they want to go. Cisco CMX also enables targeted advertising and marketing to customers in real time based on location and web searches. Its adaptive wireless security protects the network and keeps your store compliant, while assuring that Wi-Fi offerings are less complex and more manageable.
The Power of Fog Computing
Cisco is a leader in transforming the network edge into a distributed computing infrastructure. Instead of having to send every bit of information back to the data center, retailers can choose to process data out in the device to run the store. With the new Cisco IOX capability, you develop, manage, and run software applications directly on our routers, switches, and IP video cameras. With applications closer to where actionable data is generated, you can easily manage big data and derive more value from the existing network.

Scalable Sensor Infrastructures
As mentioned previously, Cisco’s IP network supports use of a variety of sensors from both Cisco and our partners. These can include smartphones, existing in-venue Wi-Fi networks, Bluetooth beacons, RFID readers, video cameras, weight-sensing shelves, motion sensors, counting systems, mobile applications, and more. By leveraging the power of fog computing, some analysis can be done right at the device, making your operation more innovative, agile, and efficient.

The Cisco Partner Ecosystem
Cisco not only offers world-class networking, security, and data management, but also all the services of an extensive ecosystem of leading partners. Our solutions can be customized to your store’s exact needs by working with offerings from partners such as WeLink Social, MicroStrategy®, Phunware, SCOPIX Solutions, RetailNext, SalesForce Radian6, and many others. Providing networking integrated with specialized sensors, analytics, and reporting solutions, Cisco and our partners provide a comprehensive portfolio of solutions to help plan, build, and run your retail infrastructure.

Cisco Consulting Services
Capitalizing on the opportunities of FastRetail requires more than simply the right infrastructure or tools. Based on a detailed IoE roadmap, retailers have the opportunity to grow the system, the operation, and the company approach to optimize the people and process aspects of your business. Cisco Consulting Services delivers industry and technology expertise to help create new markets, improve profitability, manage risk, extend global reach, fuel innovation, and unlock intelligence.

Why Cisco?
Cisco has more than 25 years of experience in retail networking, extending IoE to a portfolio of retail solutions designed to help stores customize the shopper journey, increase customer satisfaction, and drive profitability. To learn more, go to our website at cisco.com/go/retail.