



Empowering Retail Stores: Extend the Network to Transform the Retail Experience

Numerous trends are forcing retailers to adapt their business processes in order to achieve customer satisfaction, supply chain efficiency, security, and cost goals. Because all business runs over the network, retailers can benefit from new ways of using the network to support changing objectives.

What You Will Learn

Providing retail associates with powerful, productive applications and services can help them transform the shopping experience for customers. Yet delivering a consistent set of services across retail locations poses significant cost and technology-management challenges. New Cisco® networking solutions enable retailers to:

- Use their corporate networks to extend and integrate powerful enterprise applications with retail store infrastructure, thus reducing server requirements at each location
- Simplify protection of store, employee, transactions, and cardholder data
- Present a consistent brand and shopping experience across diverse locations
- Reduce costs and simplify infrastructure management

Globalization

A trend toward globalization has unique consequences for retailers. Not only must they accurately locate physical stores close to customers, they must create a transparent, consistent shopping experience between an online store and physical locations that can span geographies and cultures. Their business strategies must allow customers to shop in either or both environments without resulting in extreme infrastructure and business process complexity.

Even retailers who serve markets within a single country or region frequently rely on supply chains that extend to other countries or continents. Globalization demands an information and communication strategy that enables retailers to deliver specific network services exactly where they are needed without having to deploy numerous networks and point solutions that quickly become unmanageable.

Growth and Consolidation

Large retailers often take advantage of opportunities to expand their market presence, customer bases, or product offerings through acquisition. One difficult result of consolidation is that the IT organization can inherit isolated networks and a wide range of equipment and incompatible systems. Even through normal, organic company growth, various point solutions might have been deployed to address specific local problems or to meet seasonal requirements. For example, a retail chain might have a dozen different phone systems that were purchased for different reasons. Or a store might have used mobile point-of-sale carts during the holiday season and required a special encryption solution to safeguard wireless data traffic. Multiple, diverse systems and technology layers are inefficient, often requiring their own specialists and resulting in higher management and support costs.



Connected Consumers

Today's consumers actively seek information about products, often before they visit a store. With extensive, changing product selections and large numbers of part-time or temporary employees, it is difficult to ensure that all employees have the same level of extensive product knowledge. Retailers find that they need to provide employees with instant access to detailed, on-demand information about products so that store associates can provide responsive, personalized service.

Increasing Security Requirements

Payment Card Industry (PCI) data security requirements mandate protecting cardholder information and transaction data. Most retailers have met PCI requirements, although tracking and maintaining compliance may require multiple systems and labor-intensive processes. At the same time physical security, from access control to fraud and theft prevention, has become a high concern. Retailers continue to seek ways of minimizing risk and the amount of work needed to maintain compliance and secure their locations.

Business Benefits

The Cisco Empowered Store offers retailers a powerful approach for meeting these challenges. New advances in networking technology allow retailers to use their networks as a platform for delivering highly secure, consistent services across their locations while simultaneously simplifying management and reducing costs.

Empower Stores by Extending Enterprise Services

Cisco Lean Retail Architecture uses new application-performance technologies that allow retailers to extend rich enterprise applications to employees in retail stores without requiring full network deployments at each location:

- Technologies such as quality of service (QoS) and prioritization enable voice, video, data, and mobile applications to be delivered over the network with optimal quality. Mission-critical transactions, such as credit card authorizations, can be prioritized over less important traffic, helping retailers tailor the application to meet specific business objectives.
- WAN optimization: Today retailers can optimize their WAN links, delivering up to 50 times more traffic over them than was previously possible. Expanded bandwidth improves application performance and allows retailers to support voice, rich collaboration, and video applications over their networks. Even with high reliance on the WAN retailers can assure that individual stores remain operational at all times with new "survivability" features built into the network.

- **Performance routing:** New “best-path selection” technology helps ensure that traffic travels on the fastest, highest-quality, or least-expensive paths. For example, many retailers have two connections to each location: one that is used as the primary path and a lower-cost, often slower connection that can be used in the event of a network problem. The secondary connection often sits idle, resulting in ongoing cost for a resource that is rarely used. With performance routing, high-priority traffic can be sent over the primary link while lower-priority traffic can use the secondary link, maximizing the cost-effectiveness of that resource.

Support Differentiating Applications

The Cisco Application eXtension Platform (AXP) provides an open, extensible architecture that supports custom applications and services, which can be delivered from a router inside each store. With new, small-footprint, secure routing platforms, retailers significantly increase the range of rich services that can be delivered cost-effectively. Now they can deploy unique, customized applications right from the router platform.

Router-based applications are network-aware. For example, a custom transaction-flow- management application could sense network availability and increase the minimum transaction size required for approval during peak traffic times, thereby reducing the number of transactions across the network.

Integrate Global Security to Reduce Risk

Cisco Empowered Stores rely on integrated security capabilities. Implemented and managed centrally, security policies can be deployed uniformly. For example, the Cisco PCI Solution for Retail can be implemented across all retail and virtual store locations to help maintain compliance. Security technologies can be built into routers to protect store, employee, transaction, customer, and cardholder data moving across wired and wireless networks. New video surveillance solutions can help retailers improve physical security as well, whether they have an analog security network, are transitioning to an all-IP network, or are deploying new, network-based surveillance.

Mobility Helps Improve Retail Agility

Cisco Unified Wireless solutions are based on the IEEE 802.11 wireless technology standard, which includes support for 802.11n, the fastest, longest-range standard. Cisco Unified Wireless solutions enable retailers to quickly deploy pervasive wireless applications and advanced location services in any retail store. Powerful wireless LANs (WLANs) can be deployed globally with the same security features as the wired network.



Not only can retailers provide global mobile access to information, and to voice and retail applications with consistent service features, they can offer innovative, location-based services that improve customer service and convenience. Cisco third-generation wireless WAN technology can also be used for backup and recovery networks, allowing stores to maintain full operations in the event of a network failure beyond the retailer's control. This technology can be rapidly deployed to support the opening of new retail locations.

Unified Communications Simplify Communication

Cisco Unified Communications solutions provide flexible alternatives for empowering retail stores. Rich voice and collaboration capabilities can be delivered over the network to each location or deployed as an autonomous phone system within the store on a compact Cisco Integrated Services Router. Consistent communication capabilities across store locations can improve the retail experience for customers by providing store associates with immediate access to product information, collaboration capabilities, access to the call center, instant messaging, and unified voicemail and e-mail. In a large store environment, a Cisco Integrated Services Router can provide back-up voice capabilities in the event of a severed link between headquarters and stores.

Cisco Intelligent Retail Network

Cisco Empowered Stores are enabled over a Cisco Intelligent Retail Network, which provides a common platform for helping retailers deliver innovative business applications, meet regulatory requirements, simplify store management, and globally deploy wireless, security, and Unified Communications services.

Architecture Built on Validated Design

Cisco network architecture and validated network designs have been deployed and tested in Cisco labs. Network architectures have been designed for small, medium-sized, and large retail stores, enterprise data centers, and the Internet edge to support e-commerce operations. They include solutions for both wired and wireless deployments.

Cisco Lean Retail Architecture supports rapid response to changing business needs while simplifying IT operations. Lean retail architectures move many applications to the data center from store locations, reducing costs and simplifying management, while maximizing data center power and efficiency.



Why Cisco?

Cisco has years of experience working closely with retail enterprises and has carefully built a collection of network, security, application, and management best practices for helping retailers deploy new applications and differentiate themselves in the market. With validated network designs, proven products, built-in application intelligence, and partner solutions that address specific retail needs, Cisco helps retailers build an empowered foundation for successful retail initiatives.

Learn More Today

Call your local Cisco account representative to learn how Cisco Empowered Store solutions can help you achieve your business goals.

For more information, visit www.cisco.com/go/retailsolutions.



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