

Fortinet Retail Wi-Fi Solutions

Transforming the Retail Store Experience with Wi-Fi

Executive Summary

Retail stores are closing while online retail enjoys double-digit annual growth. Fortinet's secure wireless LAN solution gives traditional retailers the means to fight back and win.

In the past, retailers were quick to adopt Wi-Fi to improve operational efficiency. Now the omnipresence of smartphones, and the emerging Internet of Things, puts Wi-Fi center stage as a strategic imperative in retail. To prevail in the mobile age, savvy retailers know that Wi-Fi belongs at the heart of the shopping experience and seek to extract maximum value from their Wi-Fi infrastructure investment.

Free Wi-Fi is a start, but it only scratches the surface of what is possible. The full scope of retail Wi-Fi applications is yet to unfold. Wi-Fi will connect everything: advertising, lighting controls, consumer analytics, point of sale, customer service, surveillance, voice services, and more. Retailers who take advantage of everything that wireless can provide are in position to thrive in this new connected environment.

To address these changes, retailers must balance the need for security with the flexibility of allowing almost any type of device onto the network. With a rich security pedigree, Fortinet delivers a secure wireless LAN solution that helps retailers maximize efficiency and proactively influence in-store sales, while maintaining the utmost security. It provides complete protection against everything from wireless protocol and RF attacks to malware and viruses, easing the burden of PCI compliance for retailers.

Fortinet's wireless LAN solution enables retailers to transform the shopping experience, and convert walk-bys into walk-ins, showroomers into loyal customers, and loyal customers into brand ambassadors.

Retail Challenges

Deployment: With stores of different sizes in multiple remote locations, it is no wonder retailers are cautious about deploying wireless networks at all their retail outlets. Beyond setup difficulties, managing the RF space and maintaining performance can be particularly challenging, especially in multi-tenant environments. Remote locations require plug- and-play setup, self-optimizing capabilities, and functional consolidation.

Security: Looking beyond PCI compliance, security should always be a top priority in retail. Mobile platforms and IoT devices are the latest targets for malware and other security threats, yet retailers need to let these devices onto their networks. From ensuring secure payment transactions to preventing malicious activity on Wi-Fi networks, retailers need integrated security solutions that combat the latest threat vectors and zero-day attacks.

Future-Proofing: New capabilities such as face recognition, biometric scanning, and the Internet of Things are evolving rapidly. As these technologies are introduced into the retail network, the Wi-Fi solution must offer the feature flexibility, performance, and application control to handle a broad mix of traffic including biometrics, video, voice services, payment transactions, and advertising, while simultaneously serving patrons and harvesting consumer analytics from store visitors. It must be possible to tailor application policies for each site depending on what is deployed centrally and push them out to remote sites.

Solution Overview

Fortinet's secure WLAN solution is ideal for retailers with multiple locations. As a recognized leader in network security, Fortinet can support the deployment of thousands of remote locations over any type of WAN, and can deal with every type of wired and wireless threat to far exceed the minimal requirements of PCI compliance.

Fortinet WLANs can easily handle the QoS, bandwidth, security, and regulatory requirements placed on retail networks carrying financial information alongside different traffic types, ensuring that each gets the right security, resources, and priority. Centralized policy management offers complete control and flexibility over application policies and implemented features at each location.

Fortinet's FortiDeploy solution enables zero touch deployments at remote sites, lessening the burden on IT during roll-outs.

Fortinet Access Points—Indoor, Outdoor, and Remote Aps

Fortinet access points provide complete coverage for all indoor, outdoor, and remote scenarios. They work in conjunction with a local or centralized FortiGate WLAN controller that combines WLAN Control, VPN, Firewall, and Unified Threat Management features into one platform.

The family of 802.11ac access points supports the full set of enterprise features, including location tracking, rogue AP detection, WIDS, bridging and mesh services, QoS, and bandwidth management, without needing special feature licenses. Retailers can mix and match the features they need for different deployment scenarios, without licensing compliance obstacles and hidden costs.

They are also exceptionally easy to install at remote locations, just plug and play with no on-site IT staff required. The APs use automatic radio resource provisioning and spectrum sampling to automatically optimize radio settings, and will automatically discover the FortiGate WLAN controller. Once discovered, a tunnel is created between the AP and WLAN controller, providing secure access to corporate resources, guest onboarding, and centralized policy enforcement.

FortiGate—Unified Security and Application Control

At the heart of the Fortinet WLAN solution is the FortiGate network security platform, which consolidates the functions of WLAN Controller with Firewall, Intrusion Prevention, Antivirus, Anti-spam, WAN Optimization, Web Content Filtering, and Application Control. FortiGate is a recognized leader in Gartner's Magic Quadrant for Unified Threat Management.

With FortiGate, retailers can safely run multiple business SSIDs and guest SSIDs side by side with complete separation and different policies for each. They can give customers Wi-Fi access through a branded hot spot and get them to opt in via a social login or other authentication methods.

Fortinet goes far beyond meeting PCI compliance requirements such as rogue AP and wireless intrusion prevention. FortiGate provides total protection against wireless protocol and RF attacks, as well as malware, keyloggers, viruses, and zero-day attacks on all devices regardless of the operating system. Secured by FortiGuard, which continually researches the latest attacks, FortiGate receives daily updates with newly discovered virus and malware signatures to give your network continuous, up-to-date protection.

With knowledge of over 3,300 application signatures, it uses hardware-based, deep Layer 7 inspection to provide bandwidth guarantees and prioritization for critical applications. Inappropriate content can be blocked, bandwidth abusers can be throttled, devices can be quarantined, and showroomers can be monitored. FortiGate also provides a complete solution for BYOD onboarding of employee-owned devices. It lets you enforce virus and integrity checks, and use a wide range of authentication types.

FortiPresence—Retail Analytics and Customer Management

Fortinet's Wi-Fi Presence Analytics enables retailers to gather customer analytics, engage with customers, and drive in-store sales. By turning the omnipresence of smartphones into an asset and not a threat, they can combat showrooming with marketing strategies that incorporate Wi-Fi and social media, and use in-store Wi-Fi to build loyalty and influence consumer purchases in real time. Retail marketers can use presence and positioning analytics to measure the effectiveness of merchandising and marketing campaigns, and optimize staff rosters to match customer flow.

FortiPresence also allows location-based marketing by leveraging big-data and in-store consumer intelligence. Deep packet inspection on a FortiGate makes it possible to detect what a showrooming shopper is browsing for, and to counteract it on the fly.

FortiNAC - Gain Control of your IoT

IoT devices are increasingly the method by which successful retailers are setting themselves apart from the pack. Yet often these devices are rolled out before a satisfactory method to secure them is in place. FortiNAC provides detailed profiling of IoT devices on the network using multiple information and behavior sources.

FortiNAC can then implement segmentation policies and change configurations on the wireless network to ensure these critical customer experience devices are secured appropriately. Should something malicious happen to a device, FortiNAC can react in seconds to contain threats before they spread. FortiNAC offers a broad and customizable set of automation policies that can instantly trigger configuration changes when the targeted behavior is observed.

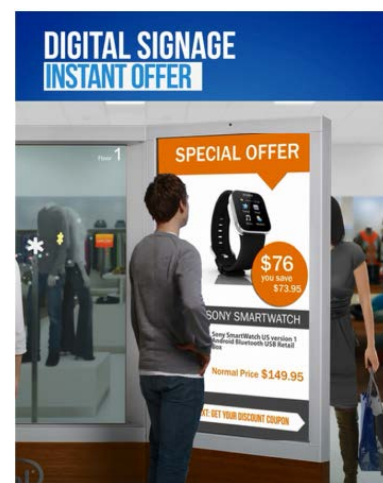


Figure 1: Real-time marketing on digital signage.

Powering Retail Applications with Fortinet

Fortinet wireless LANs empower retailers to go beyond providing basic Internet access and streamlining operational activities. They can transform customer engagement, drive loyalty and sales, and give marketing much-needed visibility into consumer behavior.

By combining enterprise-grade wireless LAN infrastructure with Unified Threat Management and Presence Analytics, Fortinet's wireless solution supports the widest range of retail-specific functionality:

Summary

To address the needs of today's "connected" shoppers and compete with online retailers, bricks-and-mortar stores need sophisticated wireless networks that deliver much more than basic operational support and customer service. They must also provide the analytics and consumer intelligence to empower marketers to measure customer behavior and respond to the ever-present online shopping alternative.

Emerging technologies such as face recognition could even tip the balance in favor of traditional retailers—provided of course that retailers have a suitable network foundation to handle the varied bandwidth and application priorities placed upon it, all while maintaining PCI compliance and stringent data, network, and personal security.

Fortinet's secure wireless LAN solution provides that foundation, and combines it with the most advanced consumer analytics and application intelligence on the market, to give retailers a competitive advantage in the mobile era.

For more information on Fortinet's Wi-Fi solutions for retail, please go to www.fortinet.com/wireless.

Video Surveillance	Monitor stores and parking areas remotely, with more flexibility and lower cost than CATV
Theft Prevention	Place Wi-Fi-enabled passive RFID readers anywhere, avoiding cabling costs
Asset Tracking	Track valuable assets to avoid misplacement, using active Wi-Fi RFID tags
Customer Service	Enable fast product, price, and inventory searches on in-store kiosks and sales associates' mobile devices
Point of Sale	Reduce delays and line-bust by taking orders and payments at the customer's side
Communications	Keep staff connected and fully mobile using VoIP on mobile devices and badges
Presence Analytics	Use visitor data to measure customer loyalty and merchandising and to optimize staffing
Social Wi-Fi Opt-In	Fuel your marketing by providing in-store Wi-Fi access in return for customer opt-in
Real-Time Offers	Combine presence and big data to market to customer devices and on digital signage
Digital Ads	Use Wi-Fi-enabled digital displays, from flat panels to smart shopping carts, for targeted advertising
Operations	Enable Wi-Fi barcode scanners for stock-taking and inventory management

