

EMPOWERING YOUR WLAN TO DELIVER A BETTER CUSTOMER EXPERIENCE

Retail solution



THE CHALLENGE: SUPPORTING A MAJOR INCREASE OF IN-STORE WIRELESS APPLICATIONS — AND A NEW GENERATION OF WI-FI

Today's wireless LAN (WLAN) is more than a network. It has become a critical business tool that helps retailers of all sizes improve the customer experience and associate efficiency. But wireless technologies and wireless initiatives have continued to evolve, pressuring the WLAN you have today and presenting numerous challenges:

- Shoppers' expect high-performance in-store Wi-Fi access. When today's shoppers step into your store, they expect you to provide complimentary access to the store's Wi-Fi network. They are looking to help control their cellular data fees and eliminate the connection issues that can occur inside a retail store. But providing guest access creates several issues:
 - Ease of access. You need to be able to allow shoppers to easily sign in to access your WLAN.
 - Security. You need to be able to keep your network secure, despite the fact that you are offering open public access to your WLAN.
- Next generation 802.11ac Wi-Fi support. The fifth generation of Wi-Fi is here. Analysts are predicting critical mass in just a few short years — in 2015 — and your customers are already buying 802.11ac-enabled mobile devices. You need to make sure that shoppers who have upgraded to these next-generation Wi-Fi devices can still access your WLAN.
- Performance expectations. You need to provide your shoppers with dependable high-performance Wi-Fi connections — despite major and unpredictable fluctuations in the number of users and traffic on the WLAN.
- There is a new generation of bandwidth-heavy wireless marketing applications that can greatly improve the shopper experience. Today's shoppers are sophisticated, ready and willing to access numerous value add applications that you provide — from how-to videos to video ads, product comparisons and personalized special offers based on their buying history. But adding numerous heavy-bandwidth applications that will be accessed by many users can easily overwhelm your available bandwidth, impacting WLAN performance.

ALL THE WLAN FEATURES YOU NEED TO TAKE THE CUSTOMER EXPERIENCE TO THE NEXT LEVEL

The robust AP 8200 Series provides a wealth of features that help you deliver service with a difference, driving the value of your wireless LAN up — while driving the cost to deploy and operate your WLAN down.

Impressive desktop-style wireless network performance for the latest mobile devices — regardless of the number of users and complex applications

- 802.11ac provides maximum network capacity and wireless speeds, breaking the Mbps barrier to deliver up to 1.3 Gbps data rates— four times the speed of 802.11n. With 802.11ac your WLAN is ready for the densest user environments, able to handle all your associates, all your customers and all your applications — even on Black Friday.
- With our distributed network-aware architecture, all WLAN infrastructure is aware of every other access point and controller in the network, as well as its state, empowering the WLAN itself with the intelligence to dynamically determine which route will provide the fastest delivery of every transmission.
- Zebra's unique features at the network edge, such as client-load balancing, airtime fairness, pre-emptive roaming and rate scaling work together to prevent an overload on any given access point and ensure devices roam when the wireless connection begins to erode — before device and app performance is impacted.

The right form factors for every area in your store environment

Choose from two models:

- The AP 8222 offers a sleek design that looks right at home in your customer-facing environments.
- The modular AP 8232 provides powerful industrial flexibility, allowing you to add new functions by simply snapping on up to two plug-and-play modules — including a 3G/4G LTE card for a redundant wireless connection, a dedicated wireless intrusion sensor, an environmental sensor or an IP video camera (available in the near future).

Installation flexibility

The plenum-rated housing in the AP 8232 series gives you complete deployment freedom — you can install the AP 8232 above a drop ceiling, under the ceiling or on a wall.

Cost-effective migration to 802.11ac at your own pace — without rip and replace

Two features give you full control over migration to the 5th generation Wi-Fi standard:

- Dual 802.11ac and 802.11n radios provide support for all clients — legacy and next generation 2.4 GHz and 5 GHz.
- Full compatibility with all Zebra WLAN infrastructure, including other access points and our NX and RFS Series controllers, ensures easy and fast integration into your existing WLAN.

Onboarding is a snap

It couldn't be easier for shoppers to join your Wi-Fi network. Even if a shopper has never been in your store and doesn't have your loyalty app loaded, you can deliver an instant invitation to join your Wi-Fi network when shoppers enter your store. Shoppers can sign on using existing credentials from social networking sites such as Facebook or LinkedIn to access your network. You can control the length of time they have access — such as 30 minutes or during business hours. And unlike the standard public hot spots, with support for certificates, the connection is very secure.

Video caching to ensure a quality viewing experience, minimize bandwidth requirements and protect network performance

Few applications consume network bandwidth and threaten network performance like video. But when you use our NX or RFS Series controllers to manage your AP 8200 Series access points, your WLAN automatically recognizes and caches frequently requested data that passes through the AP 8200 Series — such as a new how-to video that could be hosted on the NX Series controllers either in the store or in the corporate office, or on a public site such as YouTube.

In addition, you can specify what to cache and for how long, or you can simply create a series of rules that allows your network to monitor and make those decisions automatically.

Video caching analytics to maximize the value of video caching

Video caching analytics allows you to maximize the value of video caching by providing a wealth of intelligence about the cached content. Visibility into what users are requesting and the associated bandwidth requirements allows you to refine the content caching rules to better protect network performance. For example, a specific video may be more popular than you anticipated and needs to remain in the cache longer than specified. Or the space allotted to caching may need to be increased during peak shopping times, such as Saturday or Sunday.

The security your retail store requires and PCI compliance demands	<p>The AP 8200 Series provides the peace of mind that the most sensitive data, including your customer's credit card information, is secure.</p> <ul style="list-style-type: none"> • Comprehensive integrated features protect your data every second of every day, including a layer 2-7 stateful packet filtering firewall, AAA RADIUS services and a VPN gateway. • Just snap on the optional Wireless Intrusion Protection System (IPS) module for the AP 8232 for around the clock dedicated rogue detection, eliminating the need to purchase, deploy and manage a standalone layer of hardware.
A separate sandbox for maximum security for guest access	<p>Just snap the 4G LTE Cellular Backhaul module onto the AP 8232 to completely segment guest traffic from your network. Alternatively, you could use the cellular module to provide a primary wireless connection to simplify and reduce the cost of deploying a wireless network, or as a redundant wireless connection to ensure continuity of coverage in the event the wired network connection fails.</p>
Automatically collect and act on environmental information to reduce utility costs	<p>The environmental sensor module for the AP 8232 offers an integrated Light Sensing feature that detects when lighting indicates that workers have gone home, automatically activating low power mode. In addition, you can also collect information on motion inside your facility as well as temperature and humidity. The environmental information can be sent to your application, which can then take the appropriate action based on the rules you have developed. For example, motion data can allow you to light signage inside your store only when a customer is in the vicinity.</p>
Enable the advantages of video monitoring — without the cost	<p>In the near future, you will be able to connect an IP camera to the AP 8232 to collect live video feeds, allowing you to reap all the benefits of video systems, at a much lower cost. For example, you can improve security and loss prevention measures with a video surveillance system. And video analytics can provide a wealth of real-time data to ensure proper staffing at all times, minimize wait times in checkout lines, ensure prompt clean up of spills, improve traffic patterns and more, enabling supervisors to better manage the store.</p>
Locationing for a world of new applications to better serve customers and increase sales	<p>With robust locationing technologies, you can enable a wide range of new applications that can strengthen customer relationships, improve service and increase sales. This comprehensive offering includes three different levels of locationing:</p> <ul style="list-style-type: none"> • Presence — Whether or not a person or asset is in your facility • Zone — Track shoppers, associates and assets by department • Location — Track the actual location of a person or asset within 5 to 10 meters.
Locationing analytics to maximize the value of locationing	<p>Rich locationing analytics allow you to analyze the locationing information to better serve your shoppers. For example, when a shopper arrives, you can send a welcome message, complete with coupons or customized special offers for loyalty club members. You can also be notified when a customer is in an aisle where no associates are nearby, allowing you to dispatch a knowledgeable associate to arrive before the customer has to search for help. And rich locationing analytics can help you understand traffic patterns in the store to alleviate congestion and maximize accessibility to promotional displays.</p>
URL analytics to improve competitive strategies	<p>You want to know if your customers are comparison-shopping in your store and where. And with the ability to capture URLs and search terms, you will. Now, you can see what products your customers are searching for and where, providing the rich competitive intelligence required to finely tune your marketing and pricing strategies to earn a sale while shoppers are in your store.</p>
Easy and highly cost-effective management	<p>When it comes to management, Zebra's OneView WLAN management software provides a single pane where you can see your entire WLAN — your access points and all the controllers that control those access points — bringing a new level of simplicity to network management.</p> <p>But maybe you don't want to purchase and manage a controller to manage your access points. When you choose Zebra's AP 8200 Series, that's never a problem. Whether you simply are a smaller store without IT support or just want to save on the cost to manage and deploy controllers, our Cloud Management service provides a virtual controller, right through the cloud. This Software as a Service (SaaS) allows you to simply pay a monthly fee to obtain all the same management capabilities, without requiring the purchase, deployment and everyday management of a controller.</p>

- There are new advanced video-based wireless applications that can substantially improve associate productivity and operational efficiency and effectiveness. In addition to the mobile inventory management applications that allow associates to check stock, price and more without ever leaving the customer, new video-based applications can help you ensure that all associates are up to speed on new products, wait times are minimal, shelves are well stocked and promotional displays are placed in the area of the store where they will get the most traffic. While these video applications can provide great value, they are bandwidth-heavy and can easily translate into reduced WLAN performance. Applications include:
 - Training. On-demand video training can allow you to cost-effectively educate employees about new products.
 - Video analytics. Video feeds from wireless cameras can provide a wealth of information about customers and the store — from how many shoppers are in each department to how many shoppers are stopping at an in-store promotional display to whether shelves are in need of replenishment or wait times are too long at the POS. Armed with this real-time information, store managers can ensure adequate staffing of associates in each department, re-locate a promotional display to higher traffic areas to increase exposure, direct associates to re-stock shelves and much more.

As a result of these challenges, you need to increase bandwidth and accommodate many new bandwidth-heavy applications, yet still deliver stellar WLAN performance and support the next generation 802.11ac Wi-Fi devices that your shoppers are already adopting.

AN EASY SOLUTION: AP 8200 SERIES ACCESS POINTS

Zebra Technologies AP 8200 Series access points are uniquely designed for retail, providing the features and functionality required to address every one of these issues in your store. Our AP 8200 Series and WiNG 5.5, our WLAN operating system, deliver the unmatched bandwidth, network performance, security and flexibility required to meet the wireless needs of your store, your associates and your shoppers, today — and well into the future.

Delivering more functionality for less cost

When you choose the AP 8200 Series, you choose WLAN infrastructure that delivers more, for less. The multi-function AP 8232 allows you to add layers of additional technologies — from dedicated Wireless IPS sensors to IP surveillance cameras* — at a much lower cost. The sleek design of the AP 8222 fits right into the most design-conscious front-of-store environments. And since the AP 8200 series offers a higher power radio than typical competitive devices, you can provide the same level of service as competitive devices with as few as half the access points, dramatically reducing your network costs.

*Available soon

**IMPROVE THE CUSTOMER EXPERIENCE, ASSOCIATE
PRODUCTIVITY AND STORE OPERATIONS WITH THE AP
8200 SERIES ACCESS POINTS.**

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