Smart **Wi-Fi** for
RETAIL

ruckus®
Simply Better Wireless.

Smarter Wi-Fi Enhances
The Shopping Experience
AND SUPPORTS STORE OPERATIONS

Faster, pervasive and more dependable Wi-Fi connectivity that works even in crowded store environments is critical for retailers. New location based services and analytics can leverage Ruckus SPoT Wi-Fi enabled positioning service capabilities.

Combining adaptive antenna technology, band steering, and airtime fairness makes Ruckus Smart Wi-Fi ideal for high value retail environments, giving shoppers and staff reliable high-speed wireless network access.

Heatmaps and other location analytics can help identify new marketing and operational improvement opportunities

Complete Coverage: Here, There, Everywhere

Retail stores range in size from small, one-room operations to huge superstores. They require wireless connectivity everywhere, from the sales floor, to the warehouse and even the parking lot or sidewalk outside. Getting reliable and complete Wi-Fi coverage can be expensive and time-consuming. The Ruckus ZoneFlex family of products uses patented BeamFlex™ technology that focuses Wi-Fi signals to ensure the best possible Wi-Fi coverage. ZoneFlex delivers two to four times the coverage and higher throughput using fewer APs, costing less money and enabling faster deployment.

Location Based Services

The explosion of smartphones, tablets and other Wi-Fi capable devices opens the door to new customer-facing and operational applications to improve the in-store experience. Ruckus Smart Positioning Technology (SPoT™) service, the industry's first Cloud-based Smart positioning location-based service (LBS), gives service providers and enterprises the ability to deliver a wide-range of value added services over Ruckus Smart Wi-Fi networks. Whether you want anonymous traffic analysis to better understand patterns and execute A/B marketing tests, or you want to deliver an opt-in application to provide differentiated services linked to a loyalty program or promotion, Ruckus SPoT seamlessly and securely provides network-based data to drive the included SPoT analytics dashboard or to enable personalized mobile applications. SPoT lets retailers apply online analytic sophistication to the in-store environment.

Dealing With High Density

The critical test for in-store Wi-Fi occurs at peak times, such as during the holidays or back-to-school season. Ruckus BeamFlex technology provides higher performance that gets users on and off the Wi-Fi network quickly, increasing usable capacity. Additional capabilities such as client load balancing, airtime fairness, band steering, and per user rate limiting ensure hundreds of users can be served by each access point while delivering reliable and fast Wi-Fi connectivity.

Smart Wi-Fi

In-Store Applications

Retailers are increasingly leveraging technology to enhance the In-store experience and improve their operating efficiencies.

Examples include:

- Digital signage applications showing product and store promotions

- IP video for security or for detailed customer traffic analysis

- Mobile PoS applications being run from smartphones and tablets. In addition to eliminating lines and enabling store staff to spend more time with customers, this frees up additional space for merchandise and other displays.

- VoWLAN to enable store associates to stay connected even while on the floor, improving customer service and productivity

- Inventory tracking using bar-code scanners

Ruckus Smart Wi-Fi was initially designed specifically to optimize and simplify wireless video transmission. It features heuristics-based traffic classification and prioritization that automatically recognizes voice and video traffic and applies the appropriate priority and queueing to ensure clear voice calls and flicker-free HD video. The combination of high throughput, pervasive coverage, and automatic traffic prioritization based on application type delivers optimal performance for any mobile or wireless application.
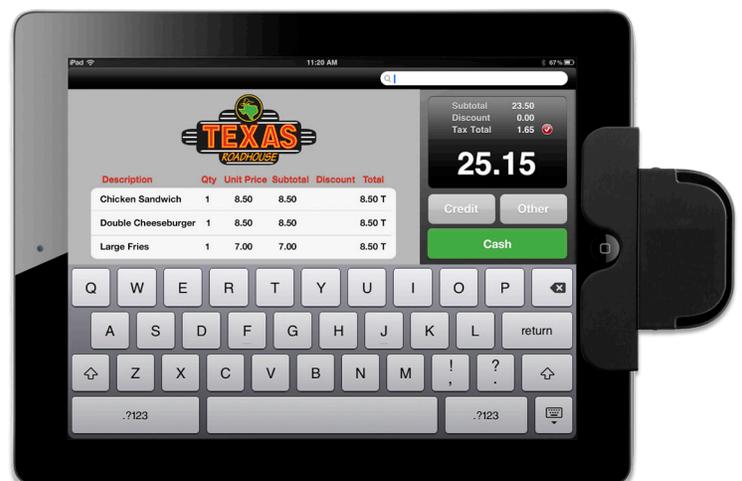
Smarter Wi-Fi optimized for IP-based video

Video has become an essential application within retail environments. IP-based video cameras and streaming IP-based video content over Wi-Fi is now taking center stage. Our heritage as a company has been focused on supporting IP-based video over Wi-Fi. Through the use of our patented adaptive antenna array and heuristics-based traffic classification and prioritization, the Ruckus ZoneFlex system delivers flicker-free video to laptops, tablets, and even televisions. Our products and technology have been uniquely designed to support latency-sensitive traffic types such as streaming HD video.

"Many forward-thinking retailers are looking at Wi-Fi as a compelling and economical way to offer and promote new services. Combining a best-of-class Wi-Fi access point with advanced remote management capabilities opens the world to a whole new set of hotspot services and business models that, until now, just haven't been possible without a lot of pain and anguish."

Rick Tangeman
President, HarborLink Network

HarborLink
LAND · SEA · AIR

TOP 10

RUCKUS DELIVERS TOP 10 WI-FI MUSTS FOR RETAIL

1 Wi-Fi coverage everywhere
2x to 4x coverage improvement through integrated long-range, high-gain antenna array

2 Reliable client connectivity
Adaptive antenna technology automatically avoids interference and steers signals over the best performing paths

3 Ruckus SPoT
Smart positioning service to provide retail analytics and enable location-aware mobile applications

4 SPoT ecosystem partners
Dynamic ecosystem of analytic and mobile applications provides complete solutions for all in-store needs

5 Indoor and outdoor managed as one
Unified configuration, administration, and management of all APs through a single interface

6 Superior voice and video support
Automatic interference mitigation ensures flicker-free streaming of voice and video

7 High density environments
Band steering and airtime fairness enable a large number of concurrent users

8 No new cabling
Highly adaptive and reliable Wi-Fi meshing eliminates the need to cable every AP

9 Flexible deployment options
Deploy APs with or without a controller, install controllers on-site or in remote locations

10 Easy to configure and deploy
Graphical user interface with easy-to-understand point and click commands

Latest Portfolio of AP Options

Ruckus offers the industry's widest range of APs, from small, single room indoor APs to 10 kilometer point to multipoint links, we've got a product custom designed for your needs. Typical retail deployments will utilize our mid-range and high end indoor access points, the ZoneFlex 7372 and 7982, as well as our outdoor ZoneFlex 7782 and 7762 access points. The ZoneFlex 7731 provides point-to-point or point-to-multi-point links up to 10 km (line of sight), and can be used to reliably connect several stores using a single broadband connection or simply connect a building that doesn't have Internet access.

Smart retailers are choosing Ruckus Smart Wi-Fi Solutions to solve challenges and raise the bar

PROBLEM	RUCKUS SMART WI-FI SOLUTION
Spotty Coverage	High-gain smart antenna system extends Wi-Fi signals two to four times farther, requiring fewer APs
Unstable Wi-Fi connectivity	Patented adaptive antenna technology within every Ruckus smart Wi-Fi access point ensures stable client connectivity and mitigates packet loss to ensure the highest performance possible
Disparate WLAN systems	Indoor and outdoor APs mesh together and are managed centrally by the ZoneDirector controller
Too many APs to manage	Requires one-third to one-half the number of APs over conventional omnidirectional Wi-Fi products
No multimedia support	Provides up to 32 discrete WLAN networks that can be used to concurrently support IP-based video, voice, and administrative applications
Guest management	Intuitive, browser-based facility lets staff generate a unique and timed Wi-Fi guest pass in less than 60 seconds
Complex installation and management	Entire WLAN configures in minutes; APs self-configure by automatically discovering the controller. Ruckus Smart Wi-Fi systems can be remotely configured and managed

we're feeling the love
from a marquee list of
WORLD-RENOWNED CUSTOMERS

Ruckus has a strong signal
at DG Lifestyle Stores

Founded in Hong Kong in 1994, DG LifeStyle Store is Asia's largest reseller of Apple products, with 15 stores across the region, and is the first Apple premium reseller to operate across Hong Kong, Singapore and China. It was named the "Worldwide Best Apple Center" in 2000.

DG LifeStyle needed a robust wireless network to demonstrate applications across a range of Apple devices including iPad, MacBook Pro, iPhone and iMac systems. Effective product demonstrations require smooth performance, even though the stores were located in busy malls where there is a lot of interference from other commercial Wi-Fi devices. The Wi-Fi network also needed to support the Point of Sales Application, stock checking and in-store CCTV security system, so it required the strongest possible security.
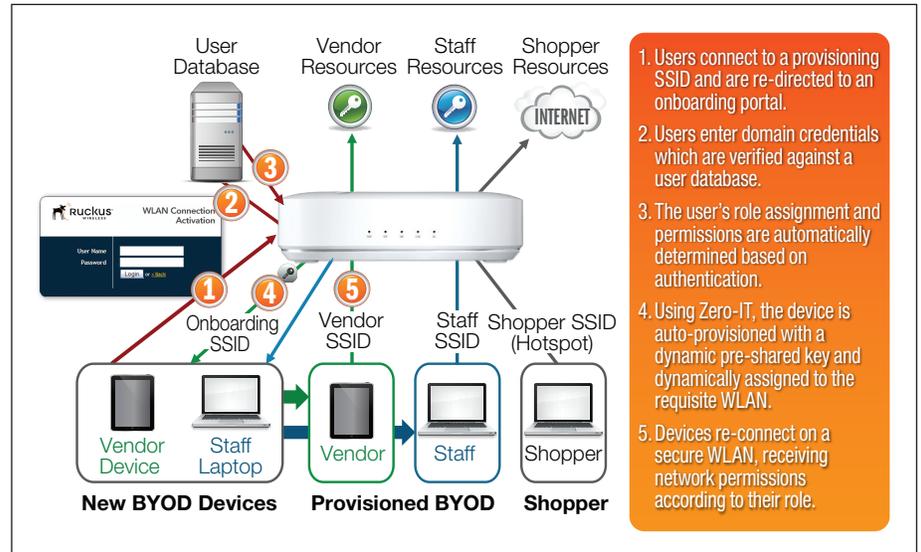
DG LifeStyle had to cover nine retail locations ranging from 600 to 2,000 square feet. Each store had to maintain a clean architectural image in accordance with Apple guidelines. They selected Ruckus 7300 Series access points since a single AP was able to provide secure, unobtrusive coverage across any of their stores. Even better, they were each managed via a single, centralized ZoneDirector 1000 Smart WLAN Controller, simplifying IT management tasks while also reducing the cost and footprint at each store.

The entire project was completed within 4 weeks, and DG LifeStyle Store now has a highly stable network that can easily cope with peak weekend shopping days. Their Wi-Fi signal is much stronger and more stable than previous in-store set-up, which has proven to be a critical advantage as in-store usage by customers and employees has grown dramatically since their initial planning stage.

Strong Wi-Fi Security, Simple to Administer

Stores need strong security to separate operational and security usage from shopper-facing promotions and services. Ruckus supports standard 802.1X security, making it fully PCI-compliant, and can provide simple, secure connections for multiple user types based on their authenticated roles and device types. Store Associates can log in with appropriate credentials and be placed into the secure 802.1x WLAN. Shoppers who, for instance, opt-into a loyalty program, may be given a password for a secure, premium network connection, and other shoppers can connect automatically to a guest network. Each user can be automatically configured (or not) with appropriate security and access policies with no IT Involvement using Ruckus' comprehensive BYOD onboarding capabilities.

1. Users connect to a provisioning SSID and are re-directed to an onboarding portal.
2. Users enter domain credentials which are verified against a user database.
3. The user's role assignment and permissions are automatically determined based on authentication.
4. Using Zero-IT, the device is auto-provisioned with a dynamic pre-shared key and dynamically assigned to the requisite WLAN.
5. Devices re-connect on a secure WLAN, receiving network permissions according to their role.

"As the world goes wireless, there's a real opportunity within our industry to radically enhance the guest service experience through the use of more advanced Wi-Fi. With everything becoming electronic, smarter Wi-Fi technology gives us the opportunity to introduce new services and applications, while improving the overall efficiency of our operations. This will give us the foundation to build our future technology on."
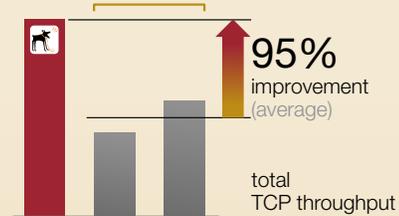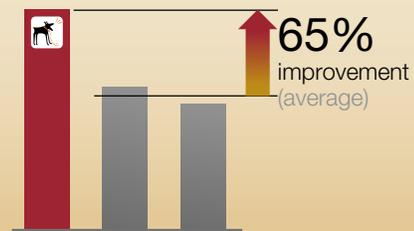
Rob Jakoby
VP of IT
Rock Bottom Restaurants, Inc.

Ruckus Smart Wi-Fi delivers
MORE CONSISTENT PERFORMANCE
at longer distances

High Density: 90 active clients per AP

adaptive antennas + conventional Wi-Fi learning-based SON implementations

95% improvement (average)

total TCP throughput

Source: SYRACUSE

Interference: 6 APs, 120 clients, 1 busy rogue AP

65% improvement (average)

No Ethernet? No Problem

For many retail establishments, Ethernet is not ubiquitous. Unlike other WLAN solutions, the Ruckus ZoneFlex system employs SmartMesh Networking, retail outlets to easily add Wi-Fi by simply plugging APs into a power outlet. This eliminates adding additional Ethernet cabling and unnecessary expenses. An advanced smart antenna array ensures unprecedented reliability for the mesh backbone, minimizing packet loss, steering signals over the fastest paths, and increasing range between mesh nodes.

Complete Portfolio for
RETAIL

ZoneFlex 7982

Indoor dual-band, 3x3:3 802.11n AP with integrated smart antenna array and PoE (802.3af/at) support

ZoneFlex 7372

Indoor dual-band, two-port 802.11n AP with integrated smart antenna array and PoE (802.3af/at) support

ZoneFlex 7352

Indoor single-band, two-port 802.11n AP with integrated smart antenna array and PoE (802.3af/at) support

ZoneFlex 7782

Outdoor dual-band, 3x3:3 802.11n AP with integrated smart antenna array and PoE (802.3at/af) support

ZoneFlex 7762

Outdoor dual-band, two-port 802.11n AP with integrated smart antenna array and PoE (802.3at/af) support

ZoneFlex 7731

Outdoor long-range, point-to-point/multipoint 802.11n 5 GHz bridge

ZoneFlex 7055

Multipurpose dual-band concurrent 802.11n wired/wireless wall switch

ZoneDirector Controllers

Central wireless LAN controllers supporting from 6 to 1,000 Ruckus APs

FlexMaster

Linux-based remote Wi-Fi system management software

Smart Wi-Fi

Designed and Built for **Pervasive Performance**...
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