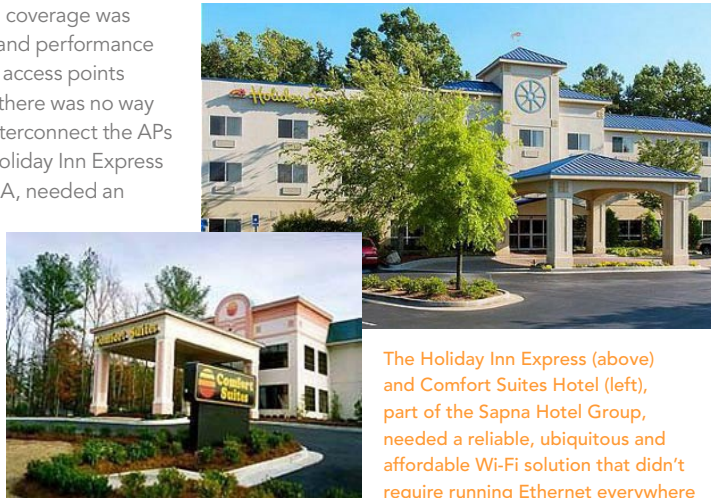




Lite Mesh Wi-Fi Lets Hotels Deliver Complete Coverage, High Performance at the Lowest Cost Per Square Foot

Guests were complaining: Wi-Fi coverage was limited, connections were flaky and performance was erratic. Adding more Wi-Fi access points (APs) wasn't an option because there was no way to extend Ethernet cabling to interconnect the APs throughout the property. The Holiday Inn Express and Comfort Suites in Duluth, GA, needed an innovative solution that would let them satisfy customers without disrupting business or breaking their capital budget. They found it.

"The number one complaint in the hospitality industry is the lack of available and dependable Wi-Fi coverage," said Shan Sultan, general manager and owner of the Holiday Inn Express in Atlanta. Sultan turned to his VAR, One Media Wireless, who delivered a ubiquitous, reliable and affordable wireless LAN solution with new "Smart Wi-Fi" technology from Ruckus Wireless. They did it in 3 hours, at a hardware cost of less than \$33 per room or \$0.21 per square foot of coverage (calculated for 15,000 sq. ft. and based on published US list prices).



The Holiday Inn Express (above) and Comfort Suites Hotel (left), part of the Sapna Hotel Group, needed a reliable, ubiquitous and affordable Wi-Fi solution that didn't require running Ethernet everywhere

WI-FI PROBLEMS GALORE

The two-story, 120-room Comfort Suites Hotel and the three-story, 100-room Holiday Inn Express suffered the same problems: customers were demanding broadband access but the hotel construction prevented installing an Ethernet drop into each room. Wi-Fi was the only alternative but it would not work reliably or extensively across the property.

Ethernet drops in these hotels were few and far between. In the Holiday Inn Express, Ethernet was run up the laundry shoot near the elevator shaft in the middle of the hotel, limiting the placement of Wi-Fi APs to only one location on each floor. Likewise, the Comfort Suites had only two Ethernet connections in the entire hotel.

Initially, both hotels tried installing conventional Wi-Fi APs. APs were deployed with external, omnidirectional antennas to cover the hotel lobby area and on the first floor. However these APs couldn't reach beyond a few rooms from where they were located.

Performance was also a major problem. Although there was a T1 (1.544 Mbps) broadband connection coming into the hotel, Wi-Fi speeds never reached higher than 100 Kbps for the users. "The integrity and reliability of the Wi-Fi signals was atrocious," said Mike Gompers, president of One Media Wireless. "Wi-Fi needed to be a value-added feature, not a source of user discontent."

Retrofitting hotels with Wi-Fi is a common headache among hotel operators. "Like many hotels, we didn't have a way to extend the

HOTEL SPECS

Holiday Inn Express

- 100 rooms
- 15,000 square feet per floor
- 33 rooms per floor
- 5 Ethernet drops (one per floor, two in lobby)

Comfort Suites

- 120 rooms
- 18,000 square feet per floor
- 60 rooms per floor
- Two Ethernet drops (entire building)

COMPANY OVERVIEW

Headquartered in Atlanta, Georgia, One Media Wireless was formed in 2006 with the goal of providing high-speed, wireless internet access in an affordable and scalable manner, layering additional technology and services over the infrastructure.

REQUIREMENTS

- Ubiquitous Wi-Fi coverage throughout entire hotel
- Implement Wi-Fi solution with no guest disturbance
- Minimize the number of access points
- Minimize, mitigate RF interference
- Install APs where Ethernet can't reach
- Centralized, simplified management
- Reduce install times
- Self-configuring, self-tuning Wi-Fi
- Reliable and resilient (no support calls)

SOLUTION

- One Ruckus ZoneDirector 1006 WLAN controller
- Three Ruckus ZoneFlex 2925 APs
- Six Ruckus ZoneFlex 2925 Lite Mesh Gateways

BENEFITS

- Complete Wi-Fi coverage with fewer APs
- Ten-times performance improvement
- Reduced capital costs by eliminating the need to run Ethernet everywhere
- Dependable Wi-Fi signal quality
- Installation of entire hotel-wide Wi-Fi system in under three hours (per hotel)
- Single Wi-Fi solution for entire hotel at .21/sq. foot or \$33 per room
- Lite-mesh capability simplified AP placement
- Automatic interference avoidance
- Automatic failover and resiliency



"Wi-Fi has become an essential element and a major draw within the hospitality industry. It is also the one thing people complain about the most due to erratic performance and limited coverage."

With ZoneFlex, Ruckus Wireless has set a new Wi-Fi standard for the industry.

ZoneFlex is the only system we've found to provide ubiquitous Wi-Fi deployment at the lowest cost per square foot while delivering the highest performance, signal coverage and reliability possible."

Mike Gompers
President
One Media Wireless

existing Ethernet due to limited availability of power and infrastructure," added Gompers. "And frankly, anything involving open construction is a disincentive."

RUCKUS ZONEFLEX TO THE RESCUE

One Media Wireless took a unique approach to solving these problems by implementing the new Ruckus ZoneFlex Smart WLAN system.

Managed by the ZoneDirector WLAN controller, Ruckus ZoneFlex APs feature a smart Wi-Fi antenna system called BeamFlex™ that automatically adjusts the signal's direction toward the intended user in real time. This allows RF energy to be efficiently directed at each communicating device allowing it to travel farther. And by shifting the Wi-Fi "beam" away from the source of interference, BeamFlex enables Ruckus APs to avoid transmission errors thereby sustaining consistent and high performance.

To get around the absence of Ethernet drops required for conventional Wi-Fi APs, One Media Wireless leveraged innovative "lite meshing" technology integrated within the

DO THE MATH	
1 ZoneDirector 1006	\$1200
3 ZoneFlex 2925 APs	\$ 777
6 ZoneFlex 2925 LMGs	\$1254
TOTAL WI-FI COST	\$3231
Square feet per floor	15,000
Total number of floors	3
Total number of rooms	100
COST PER SQUARE FOOT	\$.21
COST PER ROOM	\$32.21

new Ruckus ZoneFlex Lite Mesh Gateway (LMG) product. Lite meshing allows a ZoneFlex LMG to connect to ZoneFlex APs using a Wi-Fi uplink.

For each hotel, One Media Wireless installed a single Ethernet-connected ZoneFlex 2925 AP (denoted as the "root AP") on every floor. They then installed ZoneFlex 2925 LMGs at the edge of coverage of the root AP. Each ZoneFlex LMG simultaneously functions

as a Wi-Fi repeater and an AP, configured to associate with a root AP and rebroadcast signals both ways. In the event of a root AP failure, the ZoneFlex LMG would automatically re-associate to another root AP thereby restoring network access for its users. By deploying two ZoneFlex 2925 LMGs at opposite ends of the Ethernet-connected ZoneFlex 2925 root AP, an entire floor of approximately 15,000 sq feet, 30 rooms, received Wi-Fi coverage throughout.

Equipped with automatic RF management and wizard-based configuration, One Media Wireless brought the entire wireless LAN up and running in less than three hours at each hotel. The auto-learning and auto-optimizing Ruckus ZoneFlex system obviates the need for extensive RF site surveys or channel planning.

