



**Sheraton
Gateway**
LOS ANGELES
HOTEL

Sheraton Gateway LAX Solves Wired Network Problems with Smarter Wi-Fi from Ruckus Wireless

Like many hotels, mobile connectivity for guests is no longer an amenity, it's a must have. But outfitting a large hotel can be a costly and cumbersome task for an IT staff already busy with many other chores.

For the Sheraton Gateway LAX, a 15-floor, 800+ room luxury hotel in Los Angeles, Wi-Fi had always been a "nice-to-have if we had the time and money" project. But with more and more business travelers equipped with Wi-Fi-enabled devices of all shapes and sizes, Wi-Fi was no longer an option, it was an imperative. Ironically one of the main Wi-Fi drivers for the Sheraton LAX was its wired network.

The Sheraton's wired network uses Category 5 cabling to three distribution switches on each floor. But the wiring to each room is Category 3 phone wiring with limited capacity of 10 to 15 Mbps. DSL converters in the room change the Cat 3 wiring to Cat 5 so guests can plug in computers using a standard Ethernet cable.

"The Cat 3 cabling is bandwidth limiting and some of the newer NICs in guest computers try to connect to the network at higher speeds - causing all sorts of problems," said Leandro Cuadra, IT Manager at the Sheraton Gateway LAX.

Recabling 800 rooms with Cat 5 was a non-starter for the Sheraton that it estimated would cost \$480,000 or more. "This led us right to Wi-Fi, which we'd wanted in the first place," said Cuadra. He noted that the existing cabling was also subject to problems, like shorts, that degraded user performance. As a result, GSI (guest satisfaction index) scores from guest surveys were low. Cuadra was set to change this and to reduce support costs.

Given the construction of the hotel, built to withstand a direct hit from an aircraft, signal attenuation was a concern for the Sheraton. The three-wing configuration of the hotel with long runs to guest rooms would also make complete Wi-Fi coverage a real challenge.



Owned and operated by the KOR Group, the Sheraton Gateway LAX is a 15-floor luxury hotel with over 800 guest rooms and 50,000 square feet of meeting space. Ubiquitous Wi-Fi was always difficult to justify until they met Ruckus Wireless.



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- 802 guest rooms
- 15 floors
(12 guest room floors)
- 550,000+ square feet
- 48 ZoneFlex APs deployed (4 per floor)
- 1 AP per 17 rooms

Like many hotels, the Sheraton had limited Wi-Fi access in its 50,000 square feet of meeting space but not in the guest towers which consume more than 500,000 square feet. Now they needed Wi-Fi everywhere. Given the size of the property, cost was an issue and so was complexity.

"Our IT resources are limited, our user base is diverse and our coverage area is huge," said Cuadra. "We began looking for a robust wireless LAN (WLAN) system that was simple to install, easy to manage and provided consistent performance at range with the least amount of disruption. But finding such a beast was next to impossible."

The Sheraton began evaluating Wi-Fi products from Xirus, Colubris, Cisco and TeleAdapt but found they were too costly, complex or cumbersome to deploy and manage. Also outfitting the entire hotel with these solutions ranged from \$75,000 to \$120,000, well over Cuadra's budget. "My philosophy is that Wi-Fi technology is changing, and we shouldn't be buying into an expensive system if sometime down the road we'll need to replace or upgrade it," said Cuadra.

COMPANY OVERVIEW

In the heart of Los Angeles near LAX, the Sheraton Gateway LAX is a 15-story hotel 500,000+ square foot property with 800+ guest rooms and 50,000 square feet of meeting space.

REQUIREMENTS

- Ubiquitous Wi-Fi to cover 802 guest rooms, 500,000+ square feet
- Support for Wi-Fi meshing
- Centralized management
- Seamless integration with existing network infrastructure
- Multiple SSID support
- VLAN mapping per SSID
- Dynamic RF management support
- Reliable, long range connectivity
- Minimal AP deployment
- Simplified management and upgrading
- Remote management

SOLUTION

- 48 Ruckus ZoneFlex 2942 802.11g APs
- One Ruckus ZoneDirector 1050 Smart WLAN controllers

BENEFITS

- Complete Wi-Fi coverage
- Seamless integration with existing network architecture and infrastructure
- Strong, adaptive Wi-Fi signaling
- Each AP provides coverage to 17 rooms
- Reliable Wi-Fi signals that provide consistent performance
- Automatic interference avoidance
- Entire WLAN remotely managed by service provider



Ruckus™
WIRELESS

"We knew right away that Wi-Fi was the only way for us to raise our GSI (guest satisfaction index) scores without a massive infrastructure investment to bring the complaints down."

"Our customers don't care about what brand of Wi-Fi you're using. They care about performance and reliability."

"The Ruckus ZoneFlex system has delivered just that."

Leandro Cuadra
IT Manager
Sheraton Gateway LAX



Working with its partner, Hotel Internet Services (HIS), a leading technology integrator specialized within hospitality market, Cuadra found the Ruckus ZoneFlex system.

When first introduced to the Ruckus ZoneFlex system, the Sheraton was enamored but pessimistic. "The promises of a simple, centralized wireless LAN that delivered better performance, extended range at a lower cost was pretty hard to believe," said Cuadra. "But we had to see for ourselves." HIS began trialing the Ruckus ZoneFlex system at the Sheraton and found the promises rang true.

"Considering the building had lots of concrete, rebar, and other impediments, we were pleasantly surprised with the results we received from the Ruckus equipment," said Gary Patrick, president of Hotel Internet Services. "Additionally, because the installed system provides localized RF management and integrates Smart Meshing, it requires less day-to-day operational management."

Cuadra and HIS deployed 48 Ruckus ZoneFlex 2942 802.11g Smart Wi-Fi APs and a ZoneDirector 1050 in the telecom room to control it all. Four APs on every floor provide Wi-Fi connectivity to 66 rooms.

On each floor, one AP was attached to each of the three distribution switches on every wing while a single meshed APs was installed in the middle of the floor where an Ethernet drop wasn't available. At any time, the mesh AP on each floor would have three root APs with which to connect

thereby providing added resilience. Each wired (root) AP is powered using standard 802.3af PoE.

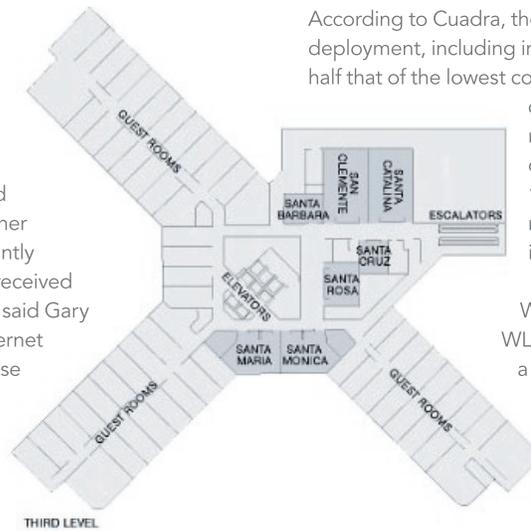
Configuration of the entire WLAN was completed in under a 30 minutes using the ZoneDirector Smart WLAN controller. Once configured, installers needed only to mount APs and connect them to Ethernet drops. Each ZoneFlex AP automatically discovers the ZoneDirector through an LWAPP tunnel, registers and downloads a pre-configured AP image.

According to Cuadra, the total cost of the Ruckus Wi-Fi deployment, including installation and configuration, was half that of the lowest competitive bid. "With 48 APs, we delivered a reliable signal to 802 rooms - 17 rooms per APs at a cost of only \$35 per room," said Cuadra. "This cost is recouped from revenue we receive from our new in-room Wi-Fi service."

With the Ruckus ZoneFlex Smart WLAN, the Sheraton is able, from a single management console, to detect rogue APs, define users groups and policies, view the frequently accessed APs, determine what clients are associated with a given AP, see specific client details and other tasks.

Going forward, the Sheraton is interested in using its new WLAN to support IP phones for VoIP over Wi-Fi and other advanced applications such as digital signage.

"The learning curve for the Ruckus system was negligible," said Cuadra. "It's proven to be one of the easiest-to-use, yet most feature-rich, Wi-Fi systems we've seen. With the system in place, we are now seeing GSI scores beginning to rise, support calls diminishing and complaints becoming less frequent. That's what every IT manager wants."



RIGHT:
For each of the 12 guest room floors with 66 rooms per floor, the Sheraton installed four ZoneFlex 2942 802.11g access points

