

A high-angle, wide shot of the Palace Hotel's grand lobby in San Francisco. The space is filled with ornate chandeliers, large columns, and numerous tables set for dining. The lighting is warm and golden, creating a luxurious atmosphere. A blue curved banner is overlaid on the bottom right of the image.

The Palace Hotel in San Francisco provides guests and staff with robust cellular connectivity and coverage thanks to the JMA Wireless Teko DAS solution.

## SOLUTION BRIEF: HOSPITALITY

# Virtualized multi-service enterprise wireless for CBRS and cellular

### OVERVIEW

## The First Distributed Radio System

The mid-size enterprise market represents 49 million square feet of office space in the United States, which is occupied by one third of today's workforce. The CIOs of these businesses are often perplexed about the easiest way to enable mobile wireless coverage and capacity in their buildings. Now, CIOs can receive what they are looking for in a solution specifically designed to meet their needs.

### SITUATION

## The many technology challenges

Providing consistent and robust wireless coverage in a hotel or across an expansive resort is not an easy task. However, it is necessary to not only ensure good call quality, but also to enable the growing number of mobile applications that hospitality CIOs are implementing and hotel guests are enjoying.

The first barrier to powerful cellular coverage often starts with the construction of the facility itself. Older hotels in particular are constructed of materials that impede the signals from the surrounding cellular towers. These signals must be powerful enough to not only enable coverage in the lobby and guest rooms, but also in meeting spaces, which are often located in the far reaches of a facility or even below ground.

Furthermore, hospitality complexes with large meeting facilities or attached convention centers have to deal with densification when they are hosting conferences or large meetings. Densification is a term used to describe dense areas of mobile subscribers with a high demand for cellular connectivity.

A resort can pose even more complex wireless connectivity issues due to its sprawling outdoor areas. Resorts are often frequented by VIPs who expect excellent coverage in the golf clubhouse, spa or even on the tennis court. Robust cellular connectivity must be ensured beyond the main lodge area of a facility.

Next, hospitality venues must be able to support multiple bands and multiple operators. Business travelers may use certain carriers while pleasure travelers may subscribe to different mobile service providers. Additionally, international guests further complicate the number of bands and operators that must be supported in order to ensure the optimal guest experience.

**Due to the proliferation of smart phones, the hospitality industry is implementing a number of new mobile applications.** In particular, hotels are deploying applications that improve customer service. For example, Hilton Worldwide is allowing guests to check in and out, select their room, check maps or even make extra requests and purchases all via their smartphones. In the near future the company is planning to offer a revolutionary application that enables smartphones to function as room keys. However, there will be new challenges accompanying this application and the wireless network must be robust, secure and future proofed in order to support it easily.<sup>2</sup>

Finally, the **cellular capacity and coverage must be powerful enough to enable mobile connectivity during emergency situations.** It must assure coverage for first responder needs as well as for staff and guests in times of crisis. During emergency situations people immediately reach for their cell phones to share text, voice and video messages. Lack of connectivity can leave first responders without proper communication channels and place the entire venue at risk.

## **SOLUTION**

### State-of-the-art solutions

JMA Wireless' innovative solutions have been providing fast, secure and pervasive cellular coverage in hospitality venues around the globe. Its state-of-the-art Teko DAS (Distributed Antenna System) and RF repeaters ensure mobile communications not only in guest rooms and the lobby, but also in difficult to reach meeting spaces or across a resort's golf course.

The modular Teko DAS supports multiple operators, multiple bands, and several mobile technologies, making it an ideal solution for hotels that welcome all types of travelers from business or pleasure, to domestic or international. Facilities like the ability to provide enhanced coverage across the various carriers. However, even if a carrier does not want to invest in the facility's DAS platform, the Teko solution can still offer enhanced cellular coverage and capacity through a direct interface with the BTS (Base Transceiver Station) or via a RF repeater

The cost effective Teko DAS uses a single optical fiber to distribute multiple bands and multiple carriers from the rack mounted Master Unit to one or multiple very high, high or low power Remote Units. The Teko DAS supports the different power level units automatically and brings the proper level to the BTS. Coverage redundancy is ensured with MIMO (multiple input multiple output) technology. **The Teko configuration uses 50 percent to 75 percent less fiber than competitive offerings,** which is particularly critical when supplying wireless connectivity across expansive resorts with huge meeting facilities.

Furthermore, with the Multiband Spectrum Analyzer (MSA) the facility's IT department can remotely monitor and optimize the Quality of Service (QoS) delivered by the Teko DAS components. It easily addresses uplink and downlink signal quality issues, and the RF spectrum is measured and recorded for each sector and Remote Unit. Performance-degrading interference is identified quickly, reducing the number of costly repeat visits to the venue.

An off-premise option known as C-DAS (Centralized Distributed Antenna System) is possible with the Teko platform. The critical mobile processing equipment is offsite while JMA's robust antennas are located throughout the hospitality venue. C-DAS preserves valuable hotel real estate and offers additional cost savings.

The innovative Teko DAS platform from JMA Wireless provides customers a future-proof solution. The modular design prepares hotels for the potential introduction of new services and technology enhancements without the need to invest in major system upgrades or replace existing equipment. Existing fiber can be leveraged as well. The end result is a future ready system at a fraction of the cost of competitive offerings.

## **RESULT**

### Leading edge wireless equipment and more

Along with manufacturing some of the most innovative mobile communications solutions in the industry, JMA Wireless partners with the best system integrators and service providers to ensure the optimal solution is installed for every customer. As a dedicated partner, JMA will not only manage the technical aspects of a client's wireless network, but also offers financing options with JMA Capital.

## About JMA Wireless

JMA Wireless is the leading global innovator in mobile wireless connectivity solutions that ensure infrastructure reliability, streamline service operations, and maximize wireless performance. Employing powerful, patented innovations their solutions portfolio is proven to lower the cost of operations while ensuring lifetime quality levels in equipment and unrivaled performance for coverage and high-speed mobile data.

JMA Wireless solutions cover macro infrastructure, outdoor and indoor distributed antenna systems and small cell solutions. JMA Wireless corporate headquarters are located in Liverpool, NY, with manufacturing, R&D, and sales operations in over 20 locations worldwide.

**FOR MORE INFORMATION:**

[jmawireless.com](http://jmawireless.com)

### JMA Corporate Headquarters

📍 7645 Henry Clay Boulevard  
Liverpool, New York 1308

☎ +1 315.431.7100

☎ +1 888.201.6073

✉ [customerservice@jmawireless.com](mailto:customerservice@jmawireless.com)

🌐 [www.jmawireless.com](http://www.jmawireless.com)

