

## CASE STUDY: THE DURHAM HOTEL IMPLEMENTS FREE HIGH-SPEED INTERNET FOR GUESTS

### THE CHALLENGE

■ Implement a compact yet robust network that serves multiple guest rooms and open spaces while working within the constraints of an older, renovated historical building.

### SOLUTION

- Install Zhone Technologies' FiberLAN GPON solution throughout the 55-room hotel.
- Implement the network from the ground-up, allowing IT management to customize the solution to their exact requirements and footprint.
- Install DISH's **smartbox** to distribute encrypted live TV over GPON.

### BENEFITS

- All video, voice and data services are cloud-based and run over FiberLAN, reducing complexity and therefore downtime.
- Integrators are provided with a remote management feature, so IT staff doesn't need to remain permanently onsite.
- The affordability and long-term value of the implementation means The Durham Hotel can provide Internet to guests free of charge while offering a network experience similar to, or better than, what the guests experience at home.



### Linking Technology and a Modern Aesthetic with Zhone Technologies' High-Speed, Space-Saving FiberLAN Solution

Durham, North Carolina has a vibe all of its own: think Southern hospitality meets tech hub. This close-knit community is thriving, with everyone from entrepreneurs to artists creating a new, vibrant energy throughout the city. Building on this entrepreneurial spirit is The Durham Hotel, a 53-room independent hotel in the heart of downtown Durham.

The Durham Hotel, which opened in July 2015, is housed inside an iconic mid-century former bank building. But it's more than just a hotel. According to General Manager Craig Spitzer, The Gentian Group set out to create a dynamic destination that would welcome locals and travelers alike. Throughout the hotel, visitors will find a thoughtfully curated selection of artisanal products that celebrate the uniqueness of Durham. But to provide a true home-away-from-home experience, Spitzer focused on something many hoteliers overlook: complimentary Internet service.

"We want to offer our guests a seamless experience, from the moment they walk in the door, until their head hits the pillow at night," said Spitzer. "Our hotel is made up of a conscientious collection of local materials and amenities. But what sets us apart is an Internet experience that's not only free to guests, but as good as, if not better than, what they experience at home."

While some hotels, including many major hotel chains, charge for the privilege of accessing the Internet, The Durham Hotel had no intention of dangling that carrot in front of its guests. "Our goal was to eliminate any of the headaches associated with accessing traditional, pay-as-you-go Internet services," Spitzer said.

The Durham Hotel was completely gutted before being transformed into a modern, tech-savvy hotel. While a complete renovation gave Spitzer a blank slate to work with, he also had a limited amount of space in which to house the hotel's network infrastructure.



## A MAXIMUM-OUTPUT IMPLEMENTATION IN A MINIMAL FOOTPRINT

“My goal was to maximize my technology offerings while limiting the amount of equipment a high-speed rollout would require,” said Spitzer. That’s when Hosted America entered the picture. Phillip Watkins, Founder and CEO of Hosted America, developed a network infrastructure plan built with Gigabit Passive Optical Network (GPON) solutions, a compact, high-performance fiber-based solution.

Watkins recommended a unique, cloud-based approach to integrating hosted VoIP with The Durham Hotel’s property management system based on Hosted America’s VoIP and Hospitality Integration platform, which provides an “all-in” technology platform that supports voice, video, Internet, Wi-Fi, security and AV.

“I decided to move away from traditional hotel telecom interface; having a switchboard operator isn’t consistent with our goal of anytime data access” said Spitzer. “Higher bandwidth is a far greater benefit to the guest than providing an antiquated phone system.”

To support these bandwidth-heavy services, Watkins recommended Zhone Technologies FiberLAN solution, a high-performance, high-density GPON-based Optical LAN solution (OLS) that delivers high-speed data, voice and video to end-users in multi-unit commercial spaces. And just as important to The Durham Hotel, FiberLAN is more cost effective and energy efficient than traditional copper-based solutions.

The foundation of The Durham Hotel’s data solution is Zhone Technologies’ MXK-194 chassis, an ultra-high capacity fiber-optimized aggregation platform that powers broadband services to end-users. Zhone’s platform is a highly cost-effective solution that is perfectly suited to the hotel’s mid-scale deployment. If in the future the hotel wants to provide additional bandwidth beyond the current throughput of 100MB per room, the MXK-194 supports up to a gigabyte uplink to each room.

## STREAMLINING THE VIEWING EXPERIENCE WITH SMARTBOX™ SOLUTION FROM DISH NETWORK

To further conserve space and energy, Hosted America proposed DISH Network’s **smartbox™** hospitality IP head-end solution to provide guests with high-speed live satellite television programming. Implementing the **smartbox** system provided significant space savings, within each room and throughout the hotel, when compared to a traditional cable platform.

For example, if a hotel offers 48 HD channels, a traditional satellite or cable implementation may require 48 residential set-top boxes, HD encoding/transcoding, excess wiring, increased energy usage, a dedicated air-conditioned control room, and additional equipment to maintain and

troubleshoot. In contrast, **smartbox** can output up to 96 HD channels from a single compact, energy-efficient and highly reliable box that delivers high-definition video to every room in the hotel.

The **smartbox** solution is ideal for both new and existing implementations, as it works with most TV monitors and can support a virtually unlimited number of in-room televisions from a single box. To further support the modern vibe of The Durham Hotel’s guest rooms, Hosted America recommended to install Zhone’s 2608 Optical Network Terminals (ONTs) throughout the guest rooms and shared spaces. The ONTs are compact enough to be wall-mounted behind each flat screen TV, allowing the flat screens to be mounted on the wall, streamlining the look and feel of each room.

With the ability to output encrypted, live TV signals over IP, there is no need to run extra cabling to each guest room. This has contributed to a significant reduction in footprint compared to traditional network implementation; produces less heat and therefore requires less energy to run; and is easier to troubleshoot because all information is relayed over a single infrastructure.

“Traditional hospitality tech implementations require a technology closet on every floor. With Zhone’s FiberLAN solution, I have less equipment to hide, which means we were able to put a linen or supply closet on every floor which reduces service response times to our guests.”

The Durham Hotel continues to build on its forward-thinking offerings and revolutionize how the hospitality industry provides services by being at the forefront of technology with the implementation of voice, video and data over GPON.

“With Zhone’s solution coupled with DISH’s **smartbox** satellite TV option, I’m essentially future-proofing the infrastructure and LAN environment while maximizing the technology within the hotel,” Spitzer said.

Contact Zhone Technologies to request a customized assessment identifying how a Passive Optical LAN (POL) can reduce operational investments, increase energy efficiency and reduce storage space for your next project.

To request a complimentary assessment visit [www.zhone.com/comp-assesment.cgi](http://www.zhone.com/comp-assesment.cgi)



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