

Rejuvenating a Building With Wireless and Automation Technology: Los Angeles' FourFortyFour South Flower

Coretrust Capital Partners is transforming Los Angeles' FourFortyFour South Flower with new wireless and automation technology. The property owner tapped Connectivity Wireless Solutions to install a distributed antenna system that will improve current 4G and upcoming 5G wireless technologies. Our thanks to Mark Niehus, director of strategic accounts for Connectivity Wireless Solutions, and Thomas Ricci, managing principal for Coretrust Capital Partners, for helping gather information for this profile.

By Sean Buckley / *Broadband Communities*

Built initially to house Wells Fargo in 1978, FourFortyFour South Flower's history in downtown Los Angeles predates widespread wireless services. But as property owners look to attract and retain tenants, reliable wireless service coverage is no longer simply nice to have – it's an expectation.

Coretrust Capital Partners, which owns the iconic office building that was once featured in the opening credits and shots of the 1986–1994 NBC television drama “L.A. Law,” is working to overcome continual in-building wireless challenges to meet this modern expectation.

As part of a \$35 million renovation, the Los Angeles-based private real estate company tapped Connectivity Wireless Solutions (CWS) to build a distributed antenna system (DAS). The neutral host DAS supports any wireless operator and consists of 317 multiband antennas and 20 software-defined remote radios. Connected

by fiber, the DAS will cover the entire 48-story tower, more than 1.24 million square feet.

The first wireless operator is getting ready to go live on the system with another one set to follow soon.

“This system should make our tenants' cellphone carrier service – depending on which carriers they are with – a lot more robust,” says Tom Ricci, managing principal of Coretrust Capital Partners. “Our goal was to future proof this building and improve cellular service, which historically is notoriously bad in high-rise buildings.”

Getting to this point wasn't easy. After looking at several DAS providers, Coretrust settled on CWS. The DAS provider negotiated with all the carriers and deployed the system.

Mark Niehus, director of strategic accounts for CWS, says that it connected with Coretrust and FourFortyFour South Flower after conducting a cold sales call.

“Coretrust was talking to one of our competitors that could not get a DAS off the ground for two years,” Niehus says. “We told them we would bring a multicarrier experience to this building that will enhance the property.”

Though DAS systems have been on the radar of building owners and wireless operators alike for a decade, the concept has gained momentum in recent years as wireless operators look to address growing bandwidth requirements with fewer assets. DAS and accompanying fiber technology not only address the need for small cell delivery, but also manage small-cell backhaul.

Driven by the need for faster data transmission, DAS growth will accelerate in the next six years. According to Grand View Research, the size of the global DAS market was valued at \$6.67 billion in 2018 and is expected to register a CAGR of 11.4 percent by 2025.

What differentiates CWS from other DAS providers is that it offers what it calls “turnkey packages” that bundle its services suite with flexible ownership and financing models. CWS’ NeutralConnect platform is a turnkey neutral host in-building wireless solution that leverages the company’s entire services suite, including design, installation, commissioning, carrier coordination, and long-term DAS system management.

As a neutral-host ownership model, the NeutralConnect platform provides numerous benefits in which funding is initiated by third-party system integrators such as CWS. CWS then works in cooperation to have multiple wireless carriers connect to the DAS with their services.

“When we entered the market about three years ago with our Simplify offering, we were tired of the other guys’ old business models,” Niehus says. “We introduced a new business model that charges the wireless carriers a reasonable fee.”

A HOST OF AMENITIES

Coretrust has incorporated various workspace and wellness-based innovations into FourFortyFour South Flower. The building’s amenities include a fresh air terrace hacked



Every floor of the office building is outfitted with the DAS.

from the building’s curtain wall, aromatherapy, soundscapes, an updated art collection, atriums and plazas, restaurants and a fitness center.

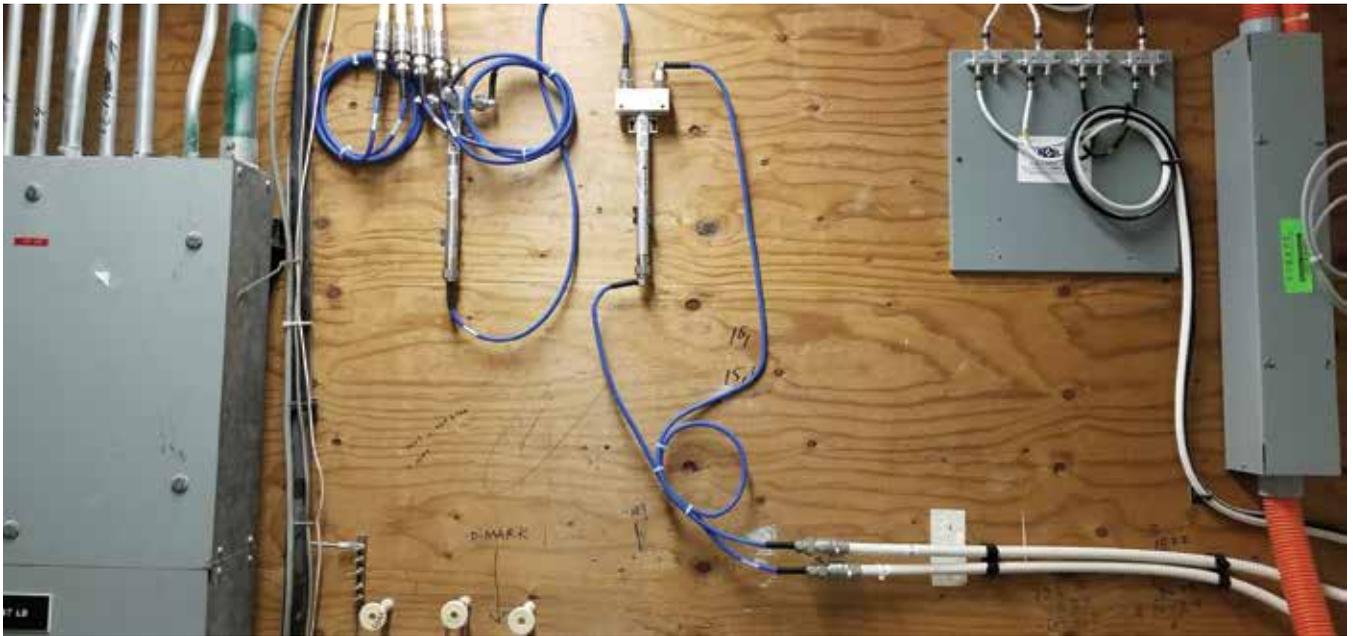
In addition, a 12,000-square-foot conference center featuring a new smart-building technology center lab opened in October. The lab showcases new workspace innovations.

“We deployed technology and things you would not expect to find in an office environment,” Ricci says. “The more employers can make their employees feel relaxed and comfortable, the more productive and happier they are going to be.”

Another amenity is automation incorporated into the elevator system. “Destination dispatch has become common in new buildings, but in buildings that are 10- to 50-years-old, that technology never existed,” Ricci says. “Incorporating dispatch will reduce wait times and make existing elevator systems more efficient with algorithms grouping people going to certain floors.”

He adds, “Technology has a way of wiping away age, making a building a lot more modern than maybe a 40-year-old office building would feel if it did not have technology.”

PROPERTY OF THE MONTH



The DAS is made up of 317 multiband antennas and 20 software-defined remotes.

VITAL STATISTICS

Property Description: Designed by AC Martin & Associates, FourFortyFour South Flower is a 48-story, 1.24-million-square-foot stainless steel and glass office tower in the center of downtown Los Angeles. This landmark tower is LEED Gold certified (2010), earned the BOMA Earth Award (2012) and has been an Energy Star Label recipient for the past 11 consecutive years.

Demographics: Class A office tenants

Greenfield or retrofit? Retrofit

Style: High-rise

Time to deploy? It took CWS about 110 days to install the DAS.

Date services started being delivered: September 2019

Special requirements the property had: Made sure the installation did not disrupt the building's busy Class A tenants. Because the installation was completed during night shifts, Connectivity Wireless Solutions was almost invisible to Coretrust and its tenants.

SERVICES

Services offered: The new DAS offers current and new building tenants and visitors common-area wireless services.

Provider choice: One centralized DAS serves all potential wireless service providers. The system is designed

to be neutral (does not favor one wireless carrier over another) and multicarrier (any number of service providers can join). There are no technical limitations to the number of providers that can connect to the DAS.

Can tenants choose among multiple service providers? Users/tenants with mobile devices can use the service inside the building. For instance, if T-Mobile joins the DAS, then T-Mobile users inside the building will experience enhanced service.

Technical support: Part of CWS's offer to the building owner (in this case, Coretrust Capital Partners) is turn-key monitoring and maintenance of the DAS. CWS monitors the DAS and works with service providers for updates. Other than giving CWS access to equipment rooms, all this is done with no involvement from the building owner and is completely "invisible" to mobile device users.

BUSINESS

Which parts of the network are owned by the service provider, and which parts are owned by the property

PROPERTY OF THE MONTH HIGHLIGHTS

~ FourFortyFour South Flower ~

- Distributed antenna system (DAS) to enhance wireless coverage
- 12,000-square-foot conference center
- Smart-building technology center lab
- Restaurants and fitness center
- Destination dispatch for elevator system

owner? All the DAS equipment is owned by CWS. The company has a lease agreement with the building owner and a related service provider lease agreement with individual carriers. This approach is a welcome relief to Class A owners and managers who don't want to have to think about making disruptive upgrades when technology becomes obsolete. CWS takes responsibility for all upgrades.

TECHNOLOGY

Architecture: The DAS is made up of 317 multiband antennas and 20 software-defined remotes for fiber connectivity to cover the 1.24 million square feet of the 48-story tower. The technology enhances all cellphone calls, regardless of the carrier network, and is not affected by volume nor dependent on nearby cell towers. Although a few major wireless carriers are online already, CWS continues to actively pursue additional carriers.

Vendors/products: CWS designed, installed and maintains a DAS. This includes equipment from OEM partners, ancillary fiber optic and coaxial cabling, and wideband antennas to provide coverage for all service providers' frequencies. Equipment vendors include JMA, SOLiD, CommScope and Corning.

Methods for running cables between buildings, vertically within buildings, horizontally within buildings: The backbone of CWS's DAS is on the lower parking level. Coretrust carved out an area there where CWS can locate its equipment. There CWS can homerun the DAS with enough room for the carriers to come in and connect. It's a mini meet-me room where participating wireless carriers will connect to the DAS. CWS deployed its DAS system throughout the 48 floors and all three levels of the parking garage.

LESSONS LEARNED

What was the biggest challenge? Planning and coordinating with multiple cellular service providers as the DAS was being designed and built.

What was the biggest success? The biggest success was getting a commitment from two Tier-1 providers (Verizon and T-Mobile) in a relatively short period of time.

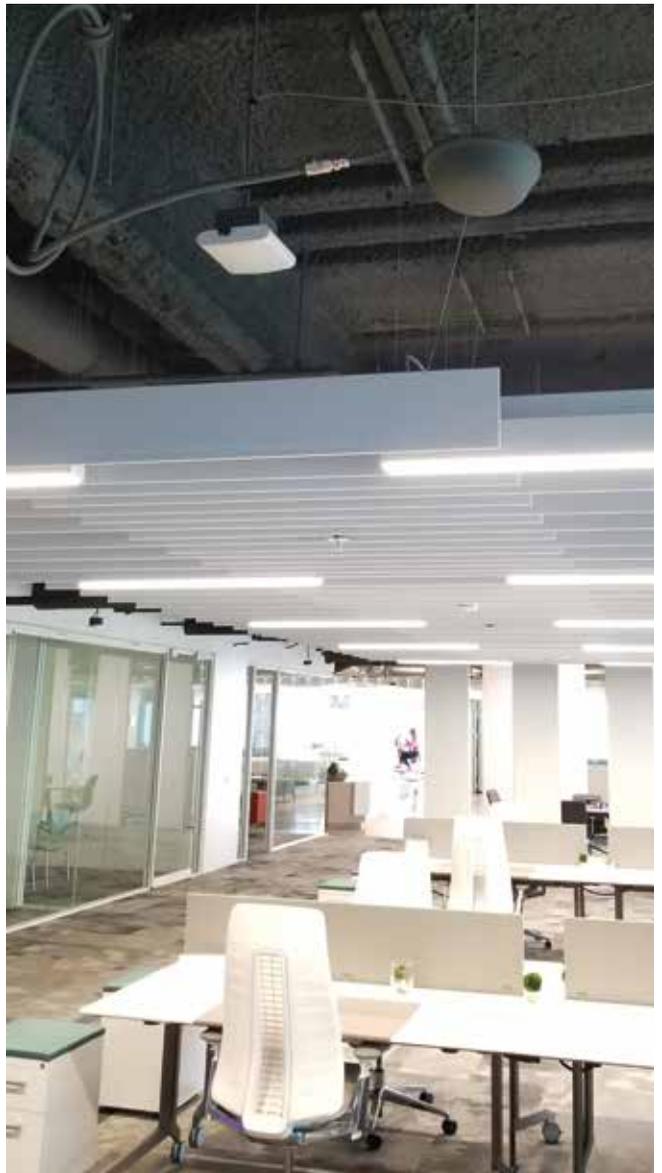
The building was already occupied at the time of the deployment, so what was done to limit disruption? CWS construction and deployment teams are experts at building systems in a manner that does not impact tenants/clients. All construction work is done in night shifts, and we hire the building's security and cleaning teams to watch us and follow behind us as we perform work.

What feedback does the leasing office get from tenants? What did the experience teach them about marketing, installing or supporting these services? Initial feedback from tenants has been very enthusiastic and excited about the fact that now, their cellphones will work in every

corner of the building, including parking. Because of the DAS, tenants will have a much more robust 4G LTE and future 5G experience with their mobile devices.

What should other owners consider before they get started on similar deployments? Owners should make sure they talk to experts, other customers and informed sources before beginning a wireless deployment. In any emerging technology market, hucksters and charlatans abound. It is still the time of the Wild West in wireless, with many false claims and failed deployments. Buyer beware! ❖

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The DAS offers building tenants and visitors common-area wireless services.