



Dropped Calls and Dead Spots: Cell Phone Nightmare Turns Into Sweet Dream For Real Estate Investment Company

Custom-Designed System Boosts PCS and Cellular Signal To Five Bars

Client: Nationwide Realty Investors
Project Start Date: January 2009
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Client Need

Imagine you're a \$1 billion U.S. real estate and equity investment company who owns a new, partially-occupied, eight-story office building in one of Columbus, Ohio's, most prestigious downtown business locations, the Arena District (so-called because of the master-planned, mixed-use development area built around the city's professional hockey team arena). The building is aesthetically top-of-the-line, but with one major glitch—spotty, and in some places, non-existent, cell phone signal reception.

"No one was happy. The owner was having problems with their carrier but didn't really have an idea of the extent of the problem until the complaints started pouring in. Tenants were complaining about problems with two other carriers. Reception was so poor for one property management tenant that they asked customers who would normally use the tenant's cell phone numbers to call their land-line instead. This was a huge interruption to their business," said Casey Fischer, Project Manager/Wireless Division of Integrated Building Systems (IBS).

First Steps

An initial site survey of each of the eight floors revealed the culprits. "When we recorded the stats for each of the three carriers, they were all different, based on where the tower was located, and the building materials—drywall, concrete, steel and insulation—near the test meter. The space loss recordings also showed that the west side of the building was blocked by a parking garage and other buildings, but the east side was open, facing a park," Fischer explained.

The Solution

IBS offered a custom-designed, product-specific solution built around four roof-top antennas and three amplifiers. The three amplifiers accounted for approximately 80% of the total system's cost.

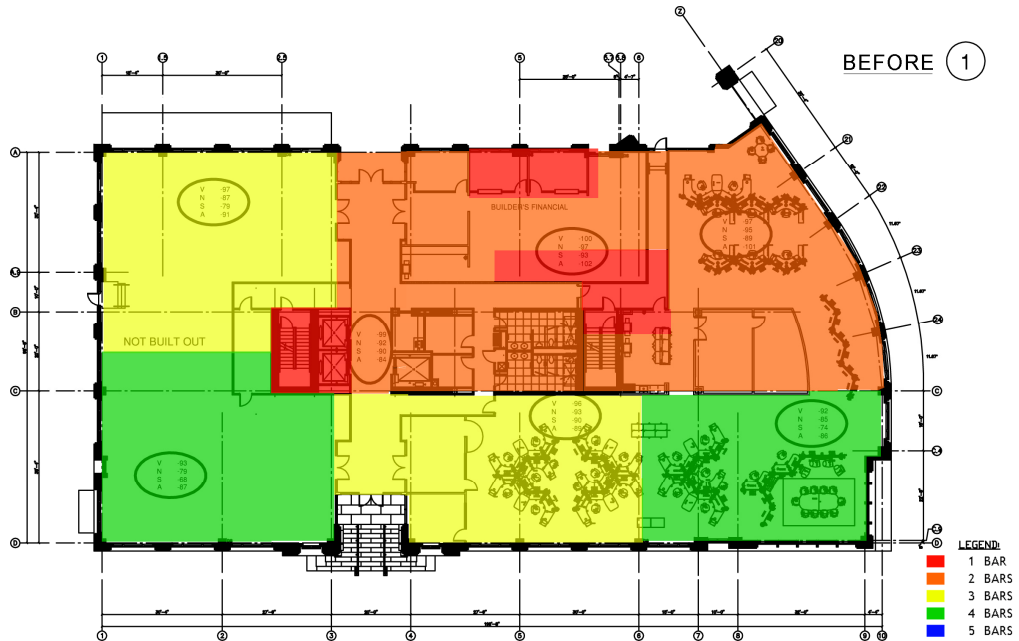


The new system distributed multiple-frequency bands into a single 50 Ohm cable. Both 800 MHz and 1.9 GHz signals were increased by a series of three amplifiers that enabled both cellular and PCS band signals to be radiated from common antennas.

Results

As shown in the before and after drawings of the first floor, cellular/PCS signals were boosted from a scant one, two and three bars to five strong bars of reception for all three major local carriers. The results were the same in the buildings center and in the elevators and stairwells to and from the garage. The garage showed five bars as well.

"IBS did an excellent job installing our booster system. The installation was timely and didn't cause any disruption to our business," said Julie Stebbins of Lifestyle Communities.



Implications

The impact of investing in this type of system is clear. In a tight commercial real estate market where competition for tenants is at a premium, the building owner can guarantee improved cellular and PCS coverage and use it as a "carrot" that their competitors can't or aren't willing to provide.

