AFL Installs an Indoor DAS for a LEED-certified Building at a North Carolina university

Summary

AFL designed and installed a DAS system that supported multiple wireless carriers for a newly constructed Leadership in Energy and Environmental Design (LEED) certified building at a university in North Carolina. The DAS system was needed to improve cellular coverage within the building.

Challenge

LEED-certified buildings are known for being energy efficient. However, their heavily-insulated walls and highly-tinted windows block radio frequency (RF) signals from reaching the interior. The result is very little, if not a complete lack of, cellular coverage. As a college building with a variety of end users, the DAS system also had to support multiple wireless carriers, including AT&T, Verizon, Sprint and T-Mobile.

Solution

Working with the university staff, AFL was given full-building access and complete support throughout the installation. Technicians installed a headend for each wireless carrier, allowing them to tap into the DAS system and guarantee wireless coverage for their customers. Using modular repeaters for each wireless carrier, combiner units, fiber distribution, remote power amplifiers and the DAS system—which consisted of splitters, couplers, coax cabling and access antennas—AFL completed the project to both the building owner's and wireless carriers' satisfaction.

Results

With Advanced RF Technologies, Inc.'s ADX DAS components, AFL implemented a DAS system that provided a minimum of -85 dBm over 95 percent of the building. The LEED building now supports reliable cellular coverage and larger data capacity for end users.

AFL