



Cisco Goes Green in Hearst Tower

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[Cisco Systems Inc.](#) (Nasdaq: [CSCO](#) - [message board](#)) is showing off a massive new WiFi win at the recently-completed Hearst Tower in the heart of NYC, which has just become the first skyscraper in the Big Apple to be awarded "green" status by the U.S. Green Building Council (USGBC).

The networking giant is providing WiFi coverage across the 46 floors of the Midtown Manhattan tower -- a gross area of 856,000 square feet in total -- with over 288 thin access points installed, covering 2000 employees. *Unstrung* visited the distinctive glass-fronted tower yesterday to see how the network has been put together.



The Hearst Tower

James Bazzano, senior network engineer for information services at Hearst Magazines, says that in general the firm has installed eight APs per floor but not all the floors are the same layout. The APs

are managed and secured via four Cisco 4404 WLAN controllers setup N+1 failover configuration. Each 4404 unit can handle up to 100 APs on its own.

The APs are 802.11b/g units that operate over 2.4GHz band. "That choice was driven by the antennas," explains Carl Cagney, director of technical services at information services for Hearst. For the publishing house decided that it didn't want to install APs in the ceilings of the new building but rather use a distributed antenna system (DAS) to shuttle both WiFi and cellular signals around the building.

Cisco worked with [MobileAccess Networks](#) to synchronize its WiFi system with the firm's DAS product, which is designed to carry multiple-carrier cellular and WLAN signals. Hearst has [Cingular Wireless LLC](#) , [T-Mobile USA](#) , and [Verizon Wireless](#) boxes in its data center.

The WiFi signals for each floor are routed over the antenna system -- which resembles a small light fixture without a bulb -- to and from the APs that are stored in a wiring closet on each floor. Traffic is routed back to the centralized controllers in the data center over co-ax cables.

Alan Cohen, senior director of mobility solutions at Cisco, notes that deploying the APs in this fashion should make it easier to upgrade to new WiFi standards than if the radio nodes had been installed in the ceiling. "When 802.11n is available in 2008 or 2009, you can just replace these," he says, pointing to the neat cluster of APs in the wiring closet.

Hearst's Bazzano says that the firm did look at other WiFi providers such as [Aruba Wireless Networks](#) for the deployment but went with Cisco because of the ability to unify different types of traffic on the network and its work with MobileAccess to allow their products to synchronize.

"We've got a little bit of code on their boxes and they've got a little bit on ours," says Cohen.

Even the scale of the WiFi network, however, which Cohen says may be the largest "contiguous" enterprise 802.11 deployment yet, pales in comparison to the effort to make the Hearst Tower a "green building."

In his office, looking out into Midtown and the Hudson River, VP of communications and executive director of corporate communications at Hearst, Paul Luthringer, explains that architect Norman Foster used a triangular "diagrid" frame to complete the tower, which sits atop the shell of the original six-storey 1926 Hearst building.

The frame uses 20 percent less steel than conventional perimeter frames. The construction also utilizes low-emission windows and low-vapor paint. Recycled and sustainable furniture and carpets have been used throughout and rainwater is collected in 14,000 gallon tanks in the building's basement and used to help keep it cool over the summer.

The low-emission windows, which are designed to retain heat during the winter months and reflect it out in the summer, have one useful benefit for the WLAN network. "They keep the signal from bleeding out," Cohen notes.

— Dan Jones, Site Editor, [Unstrung](#)