

VORNADO REALTY TRUST

Complete commercial and residential wireless

One Beacon Court is a mixed-use tower, located at 731 Lexington Avenue in the heart of Manhattan. Completed in 2005 by Vornado Realty and occupying a full city block, the 1.4-million-square-foot building includes a 105-unit luxury residential condominium project that occupies the top 24 floors, and 900,000 square feet of office space housing the corporate headquarters of Bloomberg L.P. and a unit of Citigroup. Retail tenants include the restaurant Le Cirque, Home Depot, H&M, Wachovia and the Container Store.

The Challenge

Vornado recognized the need to enhance the capabilities of wireless devices, such as two-way radios and public safety in the event of an emergency. Materials used in the construction of large buildings degrade and distort radio frequency signals, limiting the effectiveness of wireless communications. Radio frequency signals can become so distorted that even people on the same floor cannot communicate with two-way radios.

Blocked wireless signals also make it difficult for commercial and residential tenants to use their wireless devices, such as smartphones or wireless laptop computers in their offices or condominiums. Having personal cellular calls dropped is frustrating enough, but dropped calls or the inability to retrieve data in an office setting can significantly disrupt workflow and inhibit business.

The Solution

Vornado decided to seek out a wireless infrastructure that could enable smartphone, two-way radio, first-responder, and Wi-Fi, as well as support future wireless needs. During its search for such a system, a general contractor recommended Black Box (BBOX), a company that provides in-building wireless coverage for multiple applications and devices through distributed antenna system (DAS) and WLAN solutions.

Vornado installed the DAS in One Beacon Court as an amenity to the residential units and throughout the core and service levels of the entire building to enable the efficient deployment of a wide range of wide-area wireless services and applications.

BBOX also installed WLAN through the foyers and galleries of the individual residences.

A benefit of having an in-building wireless infrastructure, such as BBOX's, is that any application and technology can be easily deployed. For example, all major cellular carriers can plug into the system so that tenants can use their wireless phones throughout the building, even in elevators, stairwells and underground parking garages. Additionally, at the request of the condominium owner, Wi-Fi can be easily extended throughout the unit.

The BBOX solutions are also future ready, meaning that they can support new wireless technologies and standards as they become available. This capability eliminates the need to install a separate system for each new technology or wireless need, thus reducing future costs, maintenance and total cost of ownership.

Objective:

To provide tenants with a wireless infrastructure that could support technologies to meet their wireless needs and support safety applications.

Benefits:

- Two-way radio coverage for facility and security personnel
- First-responder communication for guaranteed communications in the event of an emergency
- Use of smartphones from major carriers
- Wi-Fi installed in each individual condominium upon tenant request
- Business tenants have a competitive advantage with readily available state-of-the-art wireless technologies

