

Case Study: AeroExtend™ Outdoor Solution Provides Internet Access for Residents of Maple Lane Apartments

Flexibility and Performance of SOHware's Outdoor Wireless Solutions Solve Complex Installation Conditions for WISP

[IT Global Systems](#), a Wireless ISP in Northern California, came to SOHware with an outdoor deployment challenge. Their current wireless installation was proving to have poor RF coverage and the original equipment supplier was estimating costly equipment upgrades to remedy the problem. IT Global's customer, a multiple apartment complex property owner would not accept the cost over runs. To remain profitable, IT Global needed a supplier who could deliver an effective wireless system that would work as promised.



Maple Lane Apartments

Desired Outcome

The property, Maple Lane Apartments, is located in a suburb of Silicon Valley in California, and consists of a sprawling series of two story buildings along both sides of a street. There are 32 buildings in all stretching for a distance of over 600 feet. The goal of the property owner was to offer high speed Internet access to each of his 128 tenant units by erecting a local fixed wireless system that would provide RF coverage throughout the entire property. Tenants would obtain complimentary access using their wireless clients in PCs and PDAs.

The original installation recommended by another WLAN vendor simply did not perform. Radio coverage was meager, reaching an average of only 50 feet from the access point. IT Global contacted SOHware for help. Within one week, SOHware had identified the problem, proposed a solution, and provided equipment that worked.

VAR-Direct Support

A successful wireless installation utilizes the right combination of technology and installation strategy to minimize RF loss and



AeroExtend Outdoor APs and Bridges

maximize reception stability. The key problem with the original vendor's solution was excessive RF losses resulting from the choice of wireless access point and antenna cabling. SOHware's FAE staff presented the correct alternative, which included AeroExtend™, a specially designed outdoor access point that utilizes Power over Ethernet.

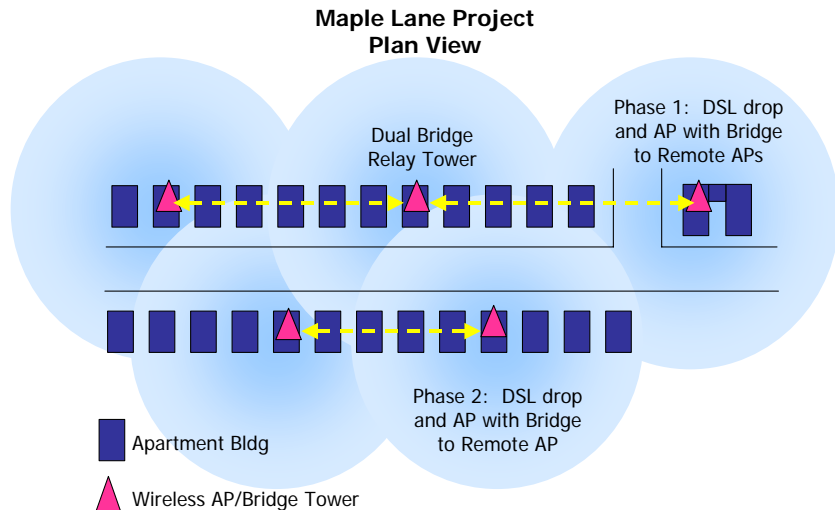
Rather than separating the access point and antenna with lengthy RF cables, AeroExtend outdoor Access Points and Bridges with PoE allow the antenna and AP to be located together on the mounting mast. RF cables are inherently high loss; even LMR400 can reduce output by 1dB over less than 15 feet of cable. By contrast, AeroExtend™ feeds data and power from the network to the AP over an outdoor rated Cat 5 Ethernet cable... nearly eliminating RF losses altogether.



AeroExtend AP and P2P Bridge deployment towers at Maple Lane

The AeroExtend™ Solution

SOHware assisted IT Global in deploying a two-phase solution for the Maple Lane Apartments. The 1st phase extended Wi-Fi coverage to tenants on one side of the street. This required three APs to provide complete coverage, all linked to one ISP drop. A combination of point to point (P2P) bridges was used to relay the connection to the farthest AP as shown in plan view diagram. The 2nd phase provided Wi-Fi coverage to the other side of the street, with two APs linked to a 2nd ISP drop. Complete property coverage of all 32 buildings was achieved with five APs in total; not a simple project given the linear layout of the property.



Says Sudesh Kumar, VP of Network Services for IT Global,
"It was the personal service and expertise of SOHware's FAE staff that made this project a success. Without their help we would not have saved this account."

Further, Sudesh states,
"and we know tenants are satisfied with the reception throughout the property because we're getting very good take rates at Maple Lane Apartments."

SOHware's FAE staff provides Design Win application response to project inquiries from VARs and WISPs as part of SOHware's VAR Direct service, and provides analysis to determine the most suitable solution for each application. This approach builds a team relationship with the VAR that ultimately delivers a successful installation the first time; a win for all parties involved.



Reliable Complimentary Internet Access is a Selling Point for the Owners of Maple Lane Apartments.

More Information

[Learn more about SOHware's VAR Direct program.](#)

[AeroExtend™ Outdoor Wireless Products.](#)