

Fiber Extension for Downtown Buildings

Wireless equipment provides fiber extension for two downtown properties



Building owners and managers need high-speed Internet access to make their properties desirable in a highly competitive real estate marketplace. For businesses, access to high-speed Internet services is a critical selection criterion when choosing commercial office space. High-speed Internet service is also important to prospective residential tenants when evaluating a place to live. Whether attracting new tenants or retaining existing ones, high-speed Internet access gives building owners and managers valuable negotiating power in today's real estate climate.

Go wireless with EION and realize the full benefits of broadband wireless networks. High-speed wireless building-to-building networks are perfect for property owners of multi-tenant or multi-dwelling buildings that need to extend broadband Internet access from a single location to one or more additional sites. Broadband wireless links are especially ideal for connecting older buildings that have not been pre-wired with fiber or don't have the physical space needed to accommodate wire line infrastructure.

CUSTOMER

Building Technologies is a cutting edge services company that provides data and network services to tenants in Multi-Dwelling Units (MDU) and Multi-Tenant Units (MTU). The type of services that Building Technologies provide include high-speed internet, local and long distance telephone service and web-based television. These services typically replace the offerings provided by incumbent telephone and cable companies.

By using centrally managed IP based devices located in the MTU or MDU, Building Technologies is able to offer its clients significantly reduced rates when compared to the competing incumbent alternatives.

Currently, Building Technologies provides services to more than twenty large and mid-size office and apartment buildings across Southern Ontario and the GTA.

CHALLENGES

Building Technologies had recently added two new buildings near downtown Ottawa to its customer portfolio. Unfortunately, neither of the buildings was wired for fiber and the existing network service to these buildings was undesirable and unable to handle the bandwidth requirements of high-speed internet users.

The company needed to equip these buildings with high-speed internet access in order to make these locations more desirable for existing and prospective tenants. The option of adding a fiber link directly to each building would prove to be cost prohibitive because of the initial investment required plus the recurring leased line charges. In addition to the price barrier, the fiber link would take upwards of a year to complete.



Shown in red is Ottawa, Ontario, Canada.

SOLUTION

Implementing the EION LibraPlus 5845 Broadband Wireless Radio, Building Technologies was able to extend the fiber connection from one of its nearby buildings to the two newly acquired locations.

The LibraPlus 5845 is EION's 4th generation OFDM system and is built on more than a decade of OFDM experience. The LibraPlus Point-to-Point (PP) family comes in two basic product configurations: a Rapid Deployment (RD) model with an integrated antenna, and an Extended Range (ER) model for use with an external antenna.

The LibraPlus 5845 radio is capable of spanning distances up to 50 km (30 miles) using external parabolic antennas. With its high spectral efficiency, large capacity, and rich feature-set, the LibraPlus 5845 PP family is a competitive option for backhaul

applications. When used in a point-to-point configuration, a pair of LibraPlus 5845 radios can deliver throughputs exceeding 45 Mbps of actual TCP/IP traffic.

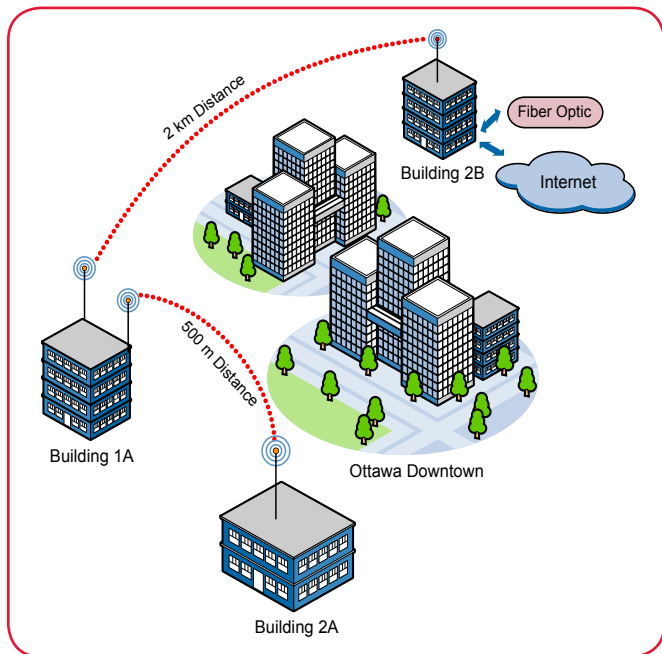


Figure 1: Network view showing the two wireless links and the fiber optic connection

RESULTS

Using the LibraPlus 5845 radios to extend the fiber backbone, the new buildings were equipped to provide tenants with broadband Internet access quickly because there was no need for time consuming and expensive wire line installations or telephone company service delays.

Overall, Building Technologies expects a payback of approximately 7-8 months on the wireless installation.

Independent tests from speedtest.net show the improvements for tenants after the switch to the wireless fiber extension. The results show that the tenants are receiving a ten-fold improvement in bandwidth.

“This project was a tremendous success, by choosing a wireless based solution we were able to provide our customers a huge improvement in the services offered. The business advantage to our company is superb, because the equipment is unlicensed we now own the entire network infrastructure and are not paying monthly fees to lease bandwidth from our competitors. The LibraPlus 5845 radios have exceeded our expectations and are delivering up to 27 Mbps of real traffic to our live network.”

Jason Cowan
Building Technologies Inc.

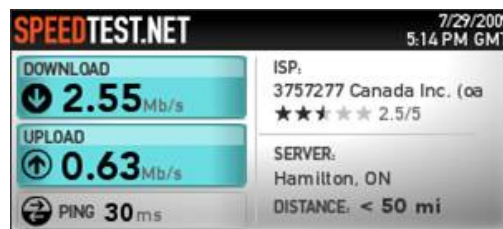


Figure 2: Speedtest results before the wireless link was installed

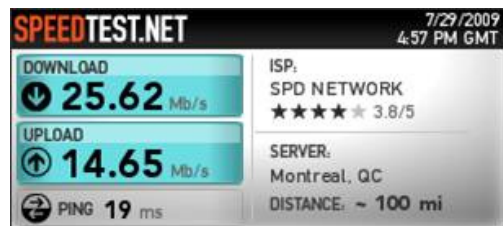


Figure 3: Speedtest results after the wireless link was installed

CONCLUSION

With broadband wireless connectivity, buildings can be linked quickly and inexpensively because there are no wires involved. There are also no costly telephone company monthly line charges to pay or telephone company service delays to endure. As well, wireless links take up minimal physical space, because the equipment is located on the roof rather than that building’s communication room.

EION Wireless and its channel partners provide everything required to set up, use and manage a wireless building-to-building network. EION can assist in integrating broadband wireless access equipment with existing network gear, a process that takes only a matter of hours.



Corporate Headquarters
 320 March Road, Suite 500
 Ottawa, ON, K2K 2E3
 Canada
 Phone: +1 (613) 271-4400
 Fax: +1 (613) 271-7040

www.eionwireless.com

EION Wireless, a division of EION Inc., is a global provider of Broadband Wireless Access products that enable effective, economic and secure wireless high-speed communications solutions. EION is a Principal Member of the WIMAX Forum and was named one of the fastest fifty growing wireless companies in North America by Deloitte and Touche. With over ten thousand broadband wireless installations worldwide, the company’s licensed and unlicensed frequency products are used by wireless ISPs, private network operators, and remote rural networks and in voice and data backhaul applications to solve last mile challenges. EION Wireless works with more than 165 worldwide channel partners to support its diverse global customer base.