CASE STUDY

Case Study: Speed Wire Inc.

LIGHTPOINTE

IT Technology Deployment & Services Company (Broadband, IT Infrastructure, Security, Enterprise, TeleMedicine)

www.speedwireinc.com



Speed Wire, a leading IT infrastructure company headquartered in New York, chose LightPointe Free Space Optics wireless bridges for Gigabit capacity links into areas where fiber is too costly or simply not available—and RF spectrum is scarce

About Speed Wire Inc.

Founded in 1996, Speed Wire Inc. leads the industry by quickly educating its personnel in current and emerging technologies. Speed Wire clients have come to rely on the company for quick, efficient, and cost effective deployment services in areas such as Broadband, Security, IT, Connected Home, Smart Energy, Kiosks, TeleMedicine, and Enterprise Solutions. Speed Wire serves clients nationwide with highly professional and experienced field resources to make every roll-out a success, enabling clients to focus on their core business initiatives, control costs, and reduce time to market. Speed Wire's client base includes many of the top communications firms in the world such as AT&T, Towerstream, Alcatel Lucent, and other firms involved in High Frequency Trading (HFT) applications in New Jersey, New York, and other major cities.

The Challenge facing Speed Wire and its customers

In the area of broadband wireless connectivity, Speed Wire's customers have unique challenges. Many of the company's customers are located in major metropolitan areas, such as New York City. In cities such as New York, trenching for and installing additional fiber capacity is virtually impossible. And in addition to such 'wired' challenges, wireless options are also limited due to spectrum scarcity, radio frequency congestion, interference, and regulatory licensing issues. For many locations within New York, connecting two buildings or towers with a reliable Gigabit capacity wireless bridge utilizing radio frequency technology is not possible.

Speed Wire evaluated various data transmission options for connecting buildings in New York city, among other areas the company serves. Speed Wire's technical personnel and management decided that LightPointe's Gigabit capacity wireless bridges, with eight overlapping laser beams per link for maximum availability, were the best technology option for many of its applications.

The LightPointe solution

LightPointe's AireStrata G Free Space Optics bridges were chosen by Speed Wire for numerous point-to-point links. The AireStrata G—which Speed Wire installs as a 'fiber bypass solution' and/or radio

frequency bypass solution—provides a total aggregated link capacity of 2000 Mbps. These links provide up to 99.999% reliability/availability and enable secure Gigabit capacity transmission into areas of New York witch would otherwise be unreachable with traditional wireless bridges. And since laser transmission is virtually impossible to intercept, the AireStrata G links provide the highest signal and cyber security possible—to protect computers and data from eavesdropping and viruses. In addition to providing high performance point-to-point data transmission, the AireStrata G's are also used in conjunction with radio frequency bridges for the final 'hop' to a specific building which is unreachable with a direct RF link, such as 60 GHz and 70/80 GHz millimeter wave solutions.



"LightPointe's Free Space Optics wireless bridges have enabled us to transmit into locations where fiber is either too costly or not available, and into locations where radios are impossible to deploy due to RF congestion, interference, and unavailability of licenses. LightPoint's solutions have provided our customers with the performance, reliability, and value which Speed Wire has become famous for."

Steve Radman Director of Commercial Services











"LightPointe's solutions have provided our customers with performance, reliability, and value..."

Key advantages of LightPointe's Free Space Optics wireless bridges for Speed Wire and its customers:

- Fast installation
- No frequency/regulatory licensing costs or delays...which is a huge challenge in cities
- A total of 2000 Mbps of aggregated link capacity
- Gigabit throughput and low latency for near-instant communications between buildings
- Superior security of optical transmission provides increased protection from data eavesdropping and cyber attacks on computer systems
- Advanced Free Space Optics/laser technology with exclusive LightPointe auto-tracking performance
- The ultimate in reliable data transmission (8 simultaneous overlapping beams per link)
- High ROI, especially when compared to GigE RF alternatives and fiber-optics

LightPointe Partner:

Speed Wire Inc. www.speedwireinc.com Phone: 877-977-7333

Industry:

IT solutions integrator with emphasis on broadband networks, Ultra Low Latency networks, security, connected home, smart energy, kiosks, telemedicine, and enterprise solutions.

Solution Features:

- World's only Software Defined Free Space Optics (SD-FSO) bridge (AireBridge LX version).
- World's only 8-beam laser bridge (per link) with autotracking and AGC (power control).
- Up to 2 Gbps aggregated/total link capacity.
- Full-duplex connectivity for highly secure transmission up to 2,500 meters at 3dB/km (or 1,500m at 10dB/km and 1,000 Mbps at 17 dB/km) with HyBridge feature enabled.
- Configurable bandwidth (buy only the bandwidth needed).
 Each side of the link can be ordered to transmit at 250, 500, or 1,000 Mbps.
- Upgradeable bandwidth (upgrade either or both sides of the link later, on AireBridge models).
- Optional HyBridge all-weather "rtMAP" technology (the system monitors in real time and automatically switches between ultra-fast laser or RF path if desired). Available with LightPointe integrated radio, or add your own appropriate radio (AireBridge version).
- Easy management via integrated "AireManager" web-based control system (SNMP v.1/v.2c compatible; alarm reports; SYSLOG; user selectable in-band//out-of-band interface support; remote firmware upload; integration into SNMP mgt system via MIB libraries).
- Flexible connection options (RJ-45 copper data interface, optional MM or SM fiber data interfaces).







