



APPLICATION BRIEF



NETWORK SECURITY SOLUTIONS

Optical Wireless for Security Applications: Highly Secure Inter-building Wireless Bridges

THE PROBLEM:

Keeping networks safe from intruders is a top priority for all Enterprises, including government agencies. With today's government agencies operating networks at speeds of Fast Ethernet and higher, IT professionals face constant pressure to balance LAN improvements and security to ensure the integrity of day-to-day business operations and protection of confidential information. Many Enterprise networks are constrained by slow 1.54 Mbps T1/E1 wired connections between buildings, further compounding the situation. These wired connections cannot scale to meet bandwidth demands. Government agencies transferring large amounts of voice, video or data need secure ultra-high building-to-building connectivity that does not carry enormous costs of fiber-optic cable. In addition, ultra-high bandwidth requirements between geographically dis-

The Problem: Enterprises need highly secure building-to-building connectivity with ultra-high throughput of Fast Ethernet & Gigabit Ethernet

persed buildings in campus environments, must meet FIPS 140-02 cryptography standards for the protection of sensitive information sent and received over networks.

Dedicated fiber-optic cable—although secure—is often ruled out by Enterprises and government agencies, due to prohibitive costs and lengthy installation times. A second fiber option, leased access from local service providers, brings with it recurring monthly expenses and may not always be available at all needed locales. Outdoor wireless solutions such as radio-frequency (RF) involve security risks and may require a layer of software to combat intrusion threats. Each additional software upgrade, however, requires bandwidth that could be better utilized for transmission of voice, video or data. Optical Wireless solutions address the range of problems government agencies traditionally have faced while seeking to implement secure, ultra-high speed connectivity between LANs without recurring Telco fees, software upgrades or lingering fears of network intrusion.

THE SOLUTION:

Government agencies with buildings visible by line-of-sight rely on highly secure, ultra high-speed Optical Wireless solutions for LAN-to-LAN connectivity. Leveraging free-space optics technology, Optical Wireless solutions provide among the most secure of all networking signals: very narrow beams of invisible light pulses. Optical Wireless solutions achieve secure full-duplex Gigabit Ethernet speeds without complications of leased or dedicated fiber-optic lines. Typically mounted in restricted areas atop buildings or behind windows in offices with controlled access, Optical Wireless solution light beams spread no more than half a degree in the



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air between two units in a point-to-point connection, making detection or interception virtually impossible. Additionally, the beams of light from Optical Wireless solutions transmit voice, video or data via light pulses that only can be received through a proprietary polished mirrored surface in Optical Wireless units. Optical Wireless solutions seamlessly transmit encrypted data to meet FIBS 140-02 compliance.

The solution eliminates:

- Threat of data interception
- Wide wireless signal paths
- Radio waves
- Encryption requirements
- Future software upgrades
- Throughput bottlenecks
- Reliance on fixed-line service providers
- In-ground fiber requirements
- Leases and long-term contracts
- Time-consuming installations
- High costs

The Solution: Narrow beams of invisible light pulses connect buildings, enabling secure voice, video or data network connections that are free from threats of eavesdropping.

LIGHTPOINTE LEADERSHIP:

LightPointe is a pioneer in Optical Wireless solutions. The company's outdoor wireless products have enabled secure building-to-building wireless fiber-optic performance for many of the world's Enterprises, including government agencies. Designed to meet the security, budget and availability requirements of Enterprises and government agencies, LightPointe Optical Wireless solutions securely link buildings that have line-of-sight visibility within approximately 4,000 meters (2.5 miles).

Benefits include:

- Secure connectivity free from threat of intrusion
- FIBS 140-02 compliance when implemented with encryption device(s)
- Installed and operational in a day
- No ongoing charges – simply purchase and install
- Products that meet every distance and bandwidth requirement, including Gigabit Ethernet
- Rooftop mounting or operational through windows
- Proven in climates in 60 countries
- Multi-beam redundancy and auto tracking available in certain models

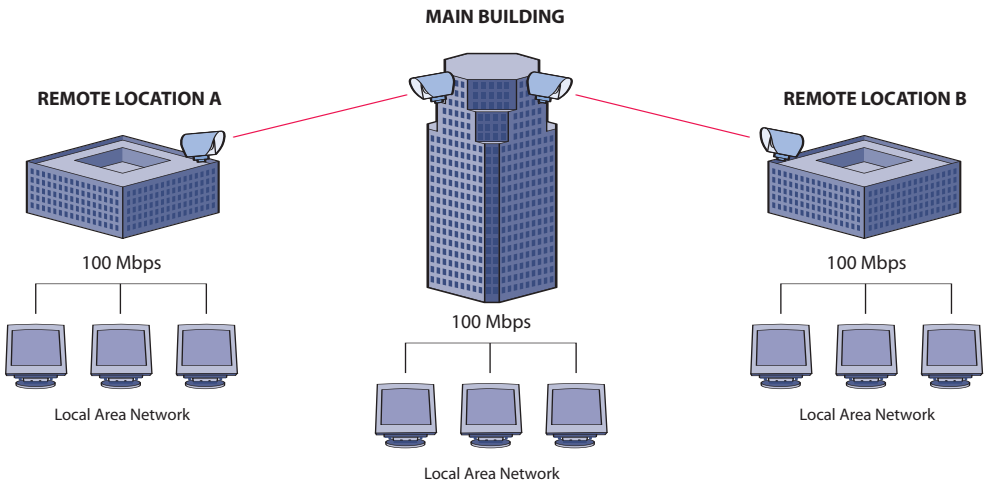
LightPointe Optical Wireless solutions are deployed in Enterprises throughout the world.



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LightPointe Optical Wireless solutions securely connect LANs with beams of light.