



Technolas Perfect Vision GmbH, a leading manufacturer of eye surgery products created from a joint venture between Bausch & Lomb and 20/10 Perfect Vision, connected two buildings with LightPointe's HyBridge™ optical-radio bridge. Technolas' deployment of HyBridge added Gigabit Ethernet capacity while protecting their legacy investment in a Lancom radio bridge.

About Technolas Perfect Vision GmbH

Technolas Perfect Vision brings to market innovations in femtosecond and excimer laser technologies with current products focused on laser cataract surgery and the correction of presbyopia. In addition to producing leading edge products, the company has a comprehensive global service and support structure in place to provide surgeons with training and applications support as they adapt their clinics to service this new patient segment.



The Challenge

Technolas growth in the medical field prompted the company to expand into a second building and initially connect an additional forty employees to their Local Area Network. Due to the urgency of the expansion, and the need to provide network access to the remote employees while minimizing downtime, it was essential to get the wireless data bridge operational quickly. Maintaining productivity and communications was a top priority. In addition, Technolas ideally wanted to protect its investment in a data bridge they already owned, two model OAP 321 5 GHz radios, manufactured by Lancom Systems GmbH. The Lancom radios, which can provide up to 54 Mbps utilizing 802.11 a/b/g/h and up to 300 Mbps utilizing 802.11n, had previously been purchased by Technolas for a separate data link installation. The IT Department did not want to throw away this investment, yet they also desired to provide state-of-the-art Gigabit Ethernet throughput between their buildings for maximum efficiency.

The LightPointe Solution

ETK Networks Solutions GmbH, a LightPointe reseller, learned of Technolas' need to establish a connection to their new building within two weeks. Julian Gabriel, of ETK Networks, recommended that Technolas deploy LightPointe's HyBridge Gigabit Ethernet Free Space Optics bridge, and use their slower Lancom radios as backup. The HyBridge SX units include an interface for attaching external radios, which made the installation fast and easy. LightPointe's HyBridge solution also has a patented and industry-exclusive DualPath™ feature which automatically switches between optical and RF transmission. ETK Networks installed the HyBridge units on the same pole mount used by the Lancom radios, which saved costs associated with mounting. The pole was attached to a gravity/weighted platform base, which secured the units precisely without any bolt/fastener penetration to the building rooftops.



“We are extremely satisfied with LightPointe’s HyBridge wireless point-to-point Ethernet link. The solution enabled us to increase throughput to Gigabit capacity in less than 14 days and without any licensing requirements. We also have the peace of mind of knowing that we have protected our legacy radio investment and it is on standby for enhanced reliability and backup.”

*Fabian Baur, IT Specialist
Technolas Perfect Vision*

Benefits

LightPointe’s reseller, ETK Networks, was able to immediately install the HyBridge SX between Technolas’ headquarters and its new building without incurring any delays or costs associated with deployment of many radio frequency solutions. In addition, data throughput was cost effectively increased to Gigabit capacity, such that Technolas’ remote employees can realize increased work productivity when transferring large software files such as product engineering designs. “Our team raves about the connection speeds the network is providing,” said Fabian Baur, IT Specialist at Technolas Perfect Vision. “And in addition to the throughput advantages provided by the HyBridge link, I am also pleased with the fact that the HyBridge optical connection is highly secure and impossible to successfully intercept, which is important for a company conducting engineering of next generation eye surgery technologies, and also frequently requiring the transmission of other proprietary information. It is comforting to know that our data is being transmitted via the pin-point beam of a laser, and not continually broadcast over the airwaves.”

Key advantages of LightPointe’s HyBridge installation for Technolas:

- Fast installation (less than two weeks from order to operation)
- No licensing costs or delays
- Gigabit throughput over 99% of the time
- Low latency for near-instant file transfers
- Superior security of optical transmission
- Automatic smart-switching between Free Space Optics and the Lancom radios
- Protection of legacy investment in Lancom radios
- Low cost/high ROI (around US\$10K), especially when compared to GigE/GbE RF alternatives
- Hot standby via the backup radio link, for extra level of reliability

Customer

Technolas Perfect Vision GmbH
Munich, Germany
www.technolaspv.com

Industry

Medical product/high technology design and manufacturing (laser eye surgery devices)

Solution

LightPointe HyBridge SX, which can be combined now or later with whatever radio the customer selects. Also available is the HyBridge SXR-5, a turn-key solution which comes from the factory with a LightPointe 5 GHz radio.

LightPointe Channel Partner

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