



Approximately \$10k installed for 100Mbps FastE + T1

■ **SystemSupportSolutions**.com  
Free Space Optics - Big Pipes... **FAST!**

**MRV Communications TS1A P.A.L. (Photonic Air Link)**

**CASE STUDY**



"It was gratifying to see your commitment to quality service."  
-Wayne Olhoft, MIS Consultant

**The Problem**

- When the Northwest Title and Escrow in Vadnais Heights MN needed to expand next door due to growth a high-speed wireless network to connect their new office **voice and data systems** became necessary.
- A low speed T1 Telco lease line was quickly rejected on performance and cost considerations.
- Full 5-9's availability was critical due to this link supporting all operations for the entire new staff

**The Solution**

- Installation of a 100 Mbps **MRV TS1A "PAL"** (Photonic Air Link) Free Space Optics optical wireless link by **SystemSupportSolutions**, of Orono, MN. **Total project investment: <\$10k.**
- Pair of RAD IPMUX-1's was installed to provide one T1 channel for Lucent PBX connectivity.

**The Benefits:**

- When the equipment arrived, its quality was immediately apparent. The transceiver enclosures are very nice, weather tight IP66 design. The included conversion to an RJ45 LAN interface was convenient.
- And during the installation several unique features were appreciated: •Coarse Azimuth is 360 degree adjustable via a very simple (hard to describe) "ring type" base; •Coarse Vertical is 180 degree adjustable; •Spotting scope is accurately calibrated and gives "very near perfect" fine alignment using fine-thread thumb screws; •Lack of 110VAC power on the rooftop is a great cost savings; •The provided "pre-terminated" proprietary fiber cable runs save both installation time and money
- **Much lower in cost than any competitive 100 Mbps 240m offering.** •Much easier to install. •100% bulletproof performance at the maximum rated link distance. •Exceptional quality throughout. •Clear installation and operating documentation. •Zero latency, high security and >5-9's availability.

Location: Vadnais Heights, MN	Organization: Northwest title and Escrow
Protocol: Fast Ethernet	Data Rate: 100 Mbps Full Duplex + T1
Distance: 46 meters	Mounting: Outside sidewall, masonry buildings