

Case Study

TERESCOPE™ DATA COMMUNICATION SOLUTIONS
TEMPORARY INSTALLATION APPLICATION

Optical Access Provides Marconi with High Bandwidth Wireless Connectivity at Broadband Year Tradeshow

Successful tradeshow exhibitors know exactly what they wish to accomplish long before the exhibit floor opens. Marconi's (formerly FORE Systems) objective at Broadband Year in San Diego was to demonstrate their compatibility with other innovative networking technologies. Marconi planned to conduct a video conference between their affiliates in Honolulu, Hawaii and their tradeshow booth at the San Diego Convention Center. A DS-3 line running video, voice and data over ATM provided the connectivity between Hawaii and the San Diego-based OC-3 (155 Mbps) metropolitan area network (MAN). Marconi then needed a quick and easy way to send this information from the San Diego based MAN connection, located at North Island, across the harbor to the Convention Center. How would they send 155 Mbps over a distance of 2.81 km where no physical lines exist?

Marconi solved this problem with MRV's wireless laser communication system, the TereScope™ 3000. With a maximum range of 3.75 km, the TereScope 3000 incorporates MRV's patented multiple transmit aperture technology to deliver data rates of up to 155 Mbps over three parallel lasers. This design minimizes the effects of fog, scintillation or any other atmospheric conditions that may

have a negative impact on the performance of a Free-Space Optics (FSO) system. Because these TereScope FSO systems are protocol independent and require no licenses or permits, both sides were installed within a matter of hours. The first link was set up on the terrace of the second floor of the Convention Center. Fiber was run from the Convention Center network to the TereScope via an office located just below the TereScope. The second TereScope was set up across the harbor on top of the North Island Bell Tower to provide a physical connection to complete their network.

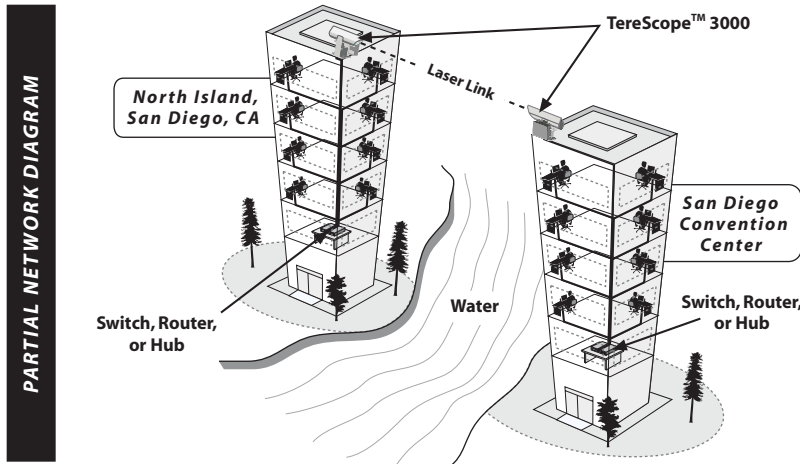
Several types of information were simultaneously transmitted through the TereScope units, including a live video conference between Hawaii and the tradeshow booth, toll-grade telephony, an internet feed from Hawaii and live footage from a video camera located on North Island but controlled by a computer located in Marconi's booth.

The booth set-up gained quite a bit of attention and was a great success for Marconi. Marconi was extremely pleased with how conveniently MRV's TereScopes complemented their tradeshow network design. "The MRV solution was a perfect fit for our requirements," said Frank Yeh, Jr., Senior Systems Engineer for



Marconi. "Ease of installation, high reliability, availability, compatibility with our products, distance and environmental constraints were all concerns, and MRV came through with flying colors on all counts."

Since the initial success, MRV has provided wireless connectivity at a number of Marconi events.



Location:	San Diego, CA
Protocol:	ATM
Data Rate:	155 Mbps
Distance:	2.81 km
Mounting:	Tripod
Interface:	Multimode fiber w/ ST Connector
Availability:	>99%

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