



Case Study **Education** (Northwest College)

THE SITUATION

Northwest College is a small college located in Kirkland, Washington (near Seattle). Northwest's CTO, Chris Martin, was faced with the challenge of expanding the college's network to a new building for complete data and voice (via VOIP) services. Since he was looking at more than \$100,000 for fiber to the campus with right-of-way access, he had to find ways to reduce infrastructure costs – in particular, his LAN line fees to the new Graduate Studies and Professional Building.

ISSUES & OPTIONS

The new building had been previously serviced by six T1 circuits and a full PBX system. With a single T1 line priced at more than \$600 per month, Chris felt there must be a more cost-effective alternative to bridge the mile link between the main campus and the new building.

“The issues were the distance from campus,” said Chris. “And the expense of wire/fiber solution was too great. We're constantly trying to minimize ongoing costs.”

He decided to try fixed wireless as a way around those six costly data lines, but he needed to be sure his high bandwidth requirements were being met. He was also worried about the non-line-of-sight condition between the two points, with trees and nearby housing posing some notable obstacles.

SOLUTION

Since he was familiar with the reliability and multipath capabilities of orthogonal frequency division multiplexing (OFDM)-based wireless equipment, Chris chose a broadband fixed wireless system. It utilizes a proven advanced OFDM technology as a foundation its non-line-of-sight capabilities, while functioning at up to 72 Mbps over the air. The system supports ranges beyond 50 miles and operates in the license-exempt band of 5.9 Hz.

RESULTS

Chris received a reliable 36 Mbps data rate.

“Installation was a snap,” he said, while praising the unique “antenna buzzer” feature.

BENEFITS

“The solution allowed us to stay on budget, implement (the project) in less than a month and get a return on investment in less than three months,” he concluded.

“Its highly recommended for those that want to save their budgets and have access to top-notch technology. Northwest College wouldn't be able to live without it!”