



## 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**

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“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.

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“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!”