



A Joint Effort
Public-private Partnership Cited for Lebanon's Network



By Patrick Lair
Albany Democrat-Herald

LEBANON — Partnerships between the public and private sector were key to making Lebanon the first town in Oregon with a free, city-owned wireless mesh network, city staff said.

A mesh network is one in which a series of transmitters communicate via wireless signal rather than fiber optic lines.

The final radio transmitters were recently mounted on Lebanon utility poles, making a total of about 70 wireless access points that broadcast an Internet signal throughout the city.

PEAK Internet provides the wireless service, a secure network for city staff and another marketed to private consumers, while Lebanon maintains the equipment and receives a portion of sales to cover its costs.

Cisco Systems Inc., maker of the wireless transmitters, gave more than half the radios to Lebanon free of charge and sold the rest at a sharp discount because Lebanon allowed Cisco to use the city as a test site, said Lebanon's information technology manager, Tom Oliver.

Such partnerships made the entire project's cost to the city less than \$85,000 so far.

The project, conceived almost three years ago, started as a mutually beneficial agreement between the city and ValNet, a local internet service provider, Oliver said.

ValNet was later purchased by Corvallis-based PEAK, which carried on with the project.

Lebanon was interested in building a wireless network that would support public works, police and other municipal functions, Oliver said, but the required bandwidth was relatively small, with a substantial cost for ongoing support.

The city previously had fiber optic lines in buildings and wireless access in a couple facilities,

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but nothing for patrol officers or other employees in the field.

ValNet, an ISP with experience in wireless service, wanted to construct a citywide wireless network but hadn't done so because of the inherent costs of permits and infrastructure, said Duston Denver, then ValNet's general manager, now an information technology analyst for the city of Lebanon.

That's when Oliver and Denver hatched the idea to combine resources.

"It just made sense to do it together. Privately, it takes too long to get back returns on the investment," Denver said.

ValNet agreed to provide the Internet, technical expertise and customer service. The city of Lebanon agreed to supply power, permits and maintenance and arrange for the use of local utility poles.

The city receives 6 percent of the wireless sales revenue, which it hopes will cover the costs of maintenance and radio replacements, Denver said.

So far, about 1,000 people have signed up for the 10 free hours per month while another 70 have purchased additional browsing time, said PEAK's marketing director, Mike Reding.

The city's partnership with Cisco was a lucky break, Oliver said.

The city first sought mesh equipment from a company called Airespace, which was later acquired by Cisco.

"Cisco saw what we were doing here and said, 'This is a great way to test this equipment,'" Oliver said.

Over the next two years, technicians from Texas and California developed and refined the Cisco Aironet 1500 Series lightweight access points in Lebanon as part of a beta-testing project.

Previously, the radios had been tested in only dry, warm climates, Denver said, and they weren't built to withstand Oregon rainfall.

The first year, 28 of the radios were damaged by water and had to be replaced. The equipment was redesigned to withstand the weather and got some other hardware and software changes.

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About 60 percent of the radios were given to Lebanon and the rest sold at discount.

Each access point sells for between \$3,000 and \$4,000 on today's market, Oliver said.

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