Case Study

Hotspot Backhaul

Calgary Wireless City Showcase Hotspots

Calgarians and visitors now enjoy the latest Wi-Fi technology and Internet access because of the high-speed backhaul made available by EION's Ultima 3 solution.

PROJECT

Calgary is well known as the centre of excellence for wireless in Canada. To demonstrate its leading position, Calgary Wireless City Showcase Hotspots project is built to provide Internet access at the heart of Calgary using the latest wireless technology. This is the first multi-service provider hotspot network in North America.

CHALLENGES

The biggest challenge of this project was to build four hotspots in a short period of time. The life span of the overall project was only ten weeks. For network security and management reasons, the four hotspots must all link to one single access point to the Internet. As well as the tough time constraint and network architecture challenge, the hotspot locations also increase the difficulty of the project as they cover some of the busiest streets in downtown Calgary.

PRODUCT

Delivering up to 12 Mbps, the Ultima 3 provide broadband coverage up to 16 km (10 miles) to 1000 Customer Premise Equipment (CPE) from a single Access Point (AP), or up to 75km (45 miles) in point to point operation. These products offer network features such as VLAN, CIR and MBR. The Ultima 3 radios simplify installation and management with the unique PDA quick start operation and GUI interface.

SOLUTION

Three Ultima 3 CPE's, connected an individual Hotspot Access Point, carry data traffic back and forth between the hotspot users and the Ultima 3 AP, linking the entire network to the Internet.

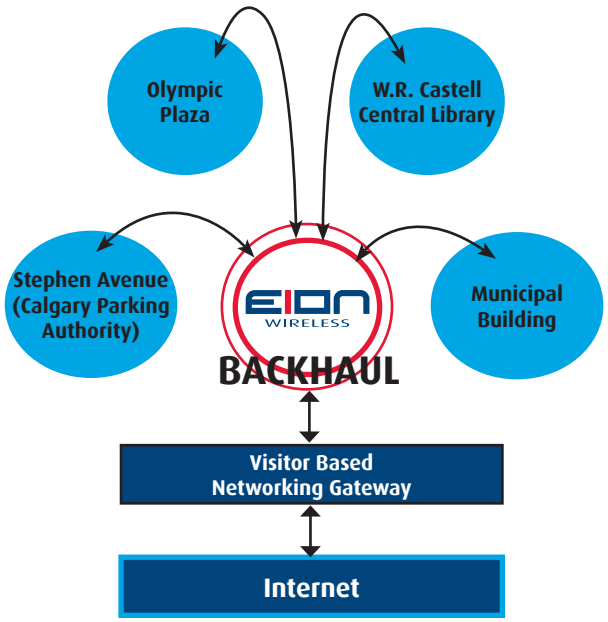
Quick Deployment: Ultima 3 rapid installation was fully demonstrated in this project. The entire backhaul infrastructure, including one Ultima 3 AP and three Ultima 3 CPE's were installed in two days, including commissioning and configuration.

Flexible Design: The physical locations of the Hotspot Access Points had been changed a few times for various reasons. With EION's wireless solution, the problem was resolved as simple as moving a CPE to the desired location.

Scalable Capabilities: The current backhaul infrastructure only supports four hotspots. As more hotspot might be required in the future, an Ultima3 CPE can be simply added to the backhaul network to provide extra coverage.

"Wi-LAN's Ultima 3 products, like prior generations of Wi-LAN equipment, are very reliable and secure," said Sami Dent, President of Fringe Solutions Inc. "In addition, this latest generation of Wi-LAN products feature a single unit design, making them easier to install, and advanced features, functionality, monitoring and management capabilities that are an example of the high standards they set in fixed wireless access systems."*

**In 2006, EION acquired the Ultima 3 Product Line from Wi-LAN*



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EION Wireless, a division of EION Inc., is a global provider of Broadband Wireless Access products that enable effective, economic and secure wireless high-speed communications solutions. EION is a Principal Member of the WiMAX Forum and was named one of the fastest fifty growing wireless companies in North America by Deloitte and Touche. With over ten thousand broadband wireless installations worldwide, the company's licensed and unlicensed frequency products are used by wireless ISPs, private network operators, and remote rural networks and in voice and data backhaul applications to solve last mile challenges. EION Wireless works with more than 165 worldwide channel partners to support its diverse global customer base.

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