

City Deploys Municipal Wireless Network

City of Moncton, Canada Provides Free Wi-Fi Access to Downtown Area

EXECUTIVE SUMMARY

City of Moncton, New Brunswick, Canada

- Industry: Local Government
- Location: New Brunswick, Canada

Business Challenge

- Foster economic development
- Project a technology-friendly business to attract entrepreneurs and technology-based businesses
- Provide free Wi-Fi access in the downtown area of the City of Moncton

Network Solution

An end-to-end Cisco Wireless Mesh Network, which includes wireless access, aggregation, multi-service core, and Internet components

Business Results

- Network was deployed under budget, which enables the City of Moncton to expand Wi-Fi coverage by adding additional Cisco Aironet® Outdoor Mesh Access Points
- Network implementation in only three days
- Cisco wireless mesh network can be expanded without additional connectivity costs, since it is scalable and self-forming.
- City can leverage the outdoor wireless network to provide city services to its citizens and provide free Wi-Fi access.



Business Challenge

The City of Moncton, with a population of around 130,000, is situated in southeastern New Brunswick, in the heart of the Maritimes. It is one of the top ten fastest growing metropolitan areas in Canada and is known for its friendly atmosphere, rich cultural scene, and exceptional quality of life. The city is situated in southeastern New Brunswick, at the geographic centre of the Maritime Provinces. The community has the nickname “Hub City,” because of its central location and also because Moncton has historically been the railway and land transportation hub for the Maritime Provinces.

The city knows that to maintain its strength in the future depends on attracting entrepreneurs and technology-based businesses. To foster its image of a technology-friendly city and enhance its attractiveness to business and citizens, the city decided to cover its downtown area with a free Wi-Fi network. The challenge was that a free Wi-Fi network is not really free, so it had to be implemented in the most cost-saving way and at the same time be able to support citizen services. The network design also had to take into account low cost of operating the network and possible future expansion of the municipal wireless network.

Network Solution

The city chose the Cisco® Wireless Mesh Network Solution as the basis for its municipal wireless network for several reasons. The City of Moncton already had a Cisco network in place, which could easily be extended through a wireless mesh deployment. A standard wireless network, in which each access point is directly wired back to the main network, would have meant a lot of additional cabling and installation cost. In a wireless mesh network, the network dynamically routes packets from node to node. Only a few access points (the root access points) have to be connected directly to the wired network, but the rest stay connected through wireless connections with mesh technology. Furthermore, the Cisco wireless mesh network is centrally managed through the Cisco

Wireless LAN Controllers that provide insight into all wireless network components through the Wireless Control System (WCS) software.

Because it was particularly important for the City of Moncton to keep installation and future maintenance costs low, the Cisco Wireless Mesh Network provided the ideal solution. The Cisco Wireless Mesh Solution provides centralizing key functions, such as scalable management, configuration, and security and transparent mobility between indoor and outdoor environments. The solution can easily be expanded at any time, and is designed to support zero-configuration deployments in which the Cisco access points easily and securely join the mesh network as soon as they are installed.

"The low deployment cost of the Cisco Wireless Mesh Network made it a compelling solution," says Dan Babineau, director of information systems, City of Moncton. In addition, the scalability and interoperability of this mesh network will enable the city to expand the network cost efficiently in the future and also add additional services, applications, and upgrade to future wireless technologies.

HP Canada, the integration partner for this project, determined the best placement for the Cisco access points throughout the downtown area to provide the best coverage. Most of the access points were placed on light poles, which the city owns. To avoid any impact from maintenance work on the city lighting, the access points were placed inside special mounting boxes. With good planning, the city was able to install the entire network, using its own personnel, within three days.

Business Results

As soon as the Wi-Fi network became available in the area of downtown Moncton, an area of about six city blocks, people started using the network immediately. Since the deployment was completed, uptake has been consistent with hotels, cafes, and retail shops taking advantage of the new city service. Small businesses are now able to conduct part of their day-to-day business operations via the Internet for improved customer service and operational cost savings. The Wi-Fi network, reaching into city buildings, benefits the productivity of city workers, who now can stay connected via wireless handheld devices while moving around the downtown area.

"It is exciting to see people sitting all over downtown with laptops or handhelds," says Babineau. "The free Wi-Fi was a valuable investment in our infrastructure as a technology-friendly city." Not only are business travelers now able to conduct business from hotel lobbies and public downtown areas, but tourists also can look up businesses and call up maps at their convenience. The free Wi-Fi attracts new small businesses to downtown Moncton, and it helps the city be true to its image as a vibrant hub city, where it is fun to work and play.

With the successful installation of Wi-Fi in the downtown area, the city of Moncton is now considering expanding the network to further support city and cultural services to its citizens and visitors.

For More Information

To find out more about the Cisco Wireless Outdoor Mesh solution, visit: <http://www.cisco.com/go/outdoorwireless> or contact your local sales representative.

To find out more about the City of Moncton, visit: <http://www.moncton.ca>.

Customer Solution At A Glance

Primary Application:

Cisco Wireless Mesh Solution

Primary Products:

- Cisco Aironet 1510 Lightweight Outdoor Mesh Access Points
- Cisco Wireless Control System Software
- Cisco ASA 5500 Series Adaptive Security Appliance
- Cisco 4400 Series Wireless LAN Controllers
- Cisco Catalyst 3750 Series Switches
- Cisco 2811 Integrated Services Router

Primary Services:

HP Services—Network and systems integration consulting



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