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LOCATION:
Canandaigua, NY, US

ORGANIZATION:
Access Ontario

YEAR:
2011

ORGANIZATION URL:
www.co.ontario.ny.us

STATUS:
Laureate

PROJECT NAME:
Access Ontario Fiber Ring

CATEGORY:
Economic Opportunity

PROJECT OVERVIEW

In 2003, as part of their technology-led economic development strategic planning sessions, leaders in Ontario County, NY, began to recognize the challenges that businesses and residents were facing in terms of telecommunications and broadband infrastructure. First and foremost was the recognition that telecommunications and broadband were critical to economic development and global competitiveness, especially if a largely rural county like Ontario County wanted to continue to grow in the 21st century. Second, officials realized the adverse impact of the county's five separate phone companies, two area codes, and inconsistent investment in telecom infrastructure. Third, and most urgent, a major employer threatened to leave in part because of this inconsistency. These challenges led to the creation of Access Ontario's 200-plus-mile, 16,000-strand-mile, open-access fiber ring project in October 2005. The project began with a basic philosophy:

- Fiber open to everyone
- Fiber to touch all municipalities, large and small
- Backbone, dark fiber only — no services to compete against private sector
- Non-profit corporation to manage private-sector contracts
- \$1.5 million in seed money from county for the \$7.5 million project, but no additional taxpayer support
- Economic development infrastructure for the 21st century

Today, the fiber ring's success is clear. Access Ontario, the non-profit corporation that manages the fiber ring, has signed master agreements with eight service providers, including Verizon Wireless and national broadband provider tw telecom. Talks with other service providers are ongoing. In addition, the fiber ring has already attracted five companies with 83 employees and growing. All are small, entrepreneurial technology firms — exactly the kind Access Ontario seeks to attract. More than 50 other companies have inquired about fiber hook-up, demonstrating high demand for high-speed service. Among the most recent companies to sign with Access Ontario is Iberdrola USA. Iberdrola is using the fiber to enhance communications among its 10 Rochester Gas & Electric substations, connect them to the utility's main control center more than 30 miles away, and resolve service issues. Others, including FF Thompson Hospital, are using the fiber to enhance their own internal IT infrastructure. Thompson Hospital's patients

at a satellite Urgent Care Center nearly 10 miles away can have X-rays taken at the Center and have them reviewed by radiologists at the Hospital in real-time, thanks to the new high-capacity broadband connection. This results in a diagnosis within minutes instead of hours, or even days. In 2010 alone, more than 3,230 X-ray exams were performed using this method. For its leadership, the Axxess Ontario fiber ring has been recognized as a national broadband model. Axxess Ontario leaders have met with the FCC to provide an overview of the fiber ring and discuss how it can be replicated elsewhere in the country. In addition, Harvard University's Ash Center for Democratic Governance and Innovation at the John F. Kennedy School of Government has recognized the fiber ring as a "Bright Idea" — a promising, innovative solution that can assist other communities as they face their own challenges.

SOCIETAL BENEFITS

Our economy, public safety, education and healthcare all benefit, thanks to the fiber ring. Five companies employing 83 people relocated to Ontario County; 911 communications improved; rural elementary school students have smart boards; and patients at a remote clinic had 3,230+ X-rays reviewed in by radiologists at hospital 10 miles away.

PROJECT BENEFIT EXAMPLE

In 2009, Thompson Health signed on to the Axxess Ontario fiber ring and began using a larger bandwidth connection between its main campus at F.F. Thompson Hospital and an Urgent Care Center nearly 10 miles away. For patients, including infants and children, this connection means that diagnostic images taken at the Center can now be reviewed, in real-time, by radiologists at the Hospital. In 2010 alone, 3,237 X-ray exams were performed using this method. Streaming video, webcasts and virtual field trips are just some of the latest benefits that rural elementary school teachers and students with the Marcus Whitman School District are experiencing. A small, rural district of approximately 1,300 students, Marcus Whitman's two elementary schools today have access to a faster, more reliable network for Internet use as well as internal district communications, thanks to the Axxess Ontario fiber ring. "The fiber ring has brought true, high-speed Internet to our two elementary schools," said Superintendent of Schools Mike Chirco. "Before our elementary schools linked to the fiber ring, large e-mails would take hours to send, streaming video was slow and poor in quality, and access to district databases was uneven at best. Today, large e-mails with pictures arrive in seconds not hours, a lab full of students can watch a streaming video live, and teachers have online access to vital student information." Telecom carriers, utilities and other businesses have also benefited from the Axxess Ontario fiber ring. Verizon Wireless is leasing fiber to connect all of the company's cell towers in Ontario County to provide more reliable cellular service to its customers. "As a result of this partnership, Verizon Wireless will be able to provide our customers with increased network reliability," said Marquett Smith, then-President, Verizon Wireless – Upstate New York Region. "In addition, the partnership will provide cost savings and efficiencies to us as a company — cost savings that, in turn, can be reinvested into future network enhancements throughout the region." For Iberdrola USA, the parent company of two regional utility companies, the fiber ring is enabling the company's Rochester Gas & Electric utility to enhance communications among 10 of its substations in Ontario County, connect them with the main control center more than 30 miles away, and resolve service issues. "If we did not have access to the fiber ring, we would either have to invest in the infrastructure ourselves, increasing our capital costs, or see our monthly telecommunications costs rise dramatically," said Iberdrola USA spokesman Dan Hucko. Small businesses are among those benefiting the most from the Axxess Ontario fiber ring and the increased competition, affordable rates and greater bandwidth that it provides. Thanks to the fiber ring, Cazbah Total



Internet Marketing Solutions switched its service provider and today is enjoying more bandwidth and speeds that are 10 times faster than what they used to be. “For a business, tapping into the fiber ring is a no-brainer,” said Cazbah president Mike Seppala. “It’s significantly faster, more reliable and less expensive than the services we used to use.”

IS THIS PROJECT AN INNOVATION, BEST PRACTICE?

Yes. Leaders in Ontario County have been operating for years as though the Access Ontario fiber ring project is a national model. This steadfast belief was confirmed last spring when U.S. Sen. Chuck Schumer urged the FCC to meet with local leaders and utilize the project as a national model coinciding with the National Broadband Plan. Within weeks, local leaders met with the FCC to provide an overview of the fiber ring and discuss how it could be replicated in other communities nationwide. In addition, in September 2010, Harvard University’s Ash Center for Democratic Governance and Innovation at the John F. Kennedy School of Government formally recognized the Access Ontario fiber ring as a “Bright Idea” — a promising, innovative solution that can assist other communities as they face their own challenges. There are numerous points of differentiation that separate the Access Ontario fiber ring from other fiber projects in the United States. First, the project’s basic philosophy ensures that fiber will be open to everyone (an open-access model) and that it will touch all municipalities, large or small. Profit is NOT the motive — providing infrastructure and service is. Second, the development and management of the ring is run by a non-profit that, in turn, works with private-sector contractors to construct, install and operate the ring. Third, the ring is dark fiber only, so it does not compete with private-sector telecom and broadband providers. Other communities may have municipal fiber rings, but they are either privately held and operated, are closed access, driven by the profit motive, or, in some cases, actually compete directly with the private sector. The Access Ontario fiber ring is unlike those projects in that it is publicly held, open access, focused on a long-term return on investment, and does not compete with the private sector in any way. These differences are what make our fiber ring a national model.

ADDITIONAL PROJECT INFORMATION

Every project needs a champion and Access Ontario is no exception. Access Ontario CEO Ed Hemminger, who also serves as the Ontario County CIO and the county’s CTO for Economic Development, is our community champion and has played a leading role in our success. A project of this magnitude needs a champion that will drive it forward over the long haul and plan accordingly for the long-term. Hemminger has done just that — just what one would expect from a retired US Air Force Chief Master Sergeant. Hemminger’s leadership in statewide organizations has been key to the fiber ring’s success. He is Past President of the New York State Local Government IT Director’s Association, a member of the New York State CIO Council, and a member of the New York State Broadband Development and Deployment Council. He was also the winner of the 2009 New York State Public Sector CIO of the Year Award. That said, Hemminger and the Access Ontario board recognize that one person cannot do it alone. The corporation contracts with multiple private sector companies, including ECC Technologies, to operate and market the 200-plus-mile fiber ring to the telecom and broadband industry, businesses and institutions, residents and more. All of this has increased public awareness of the fiber ring and the Ontario County community locally, regionally, across the state, and across the country. This past June, CNBC featured a story on our fiber ring, sharing our story with key business influencers and decision-makers nationwide.