



Blue Ribbon Panel Committee Report

TO: Scott Wordelman, Chair BRP
BRP committee members
Mayor John Howe

FROM: Laura Blair, Information Technology Director

Meeting Date: February 10, 2010

ACTION REQUESTED: Report on fiber optic project

BACKGROUND

As the condition of our current incumbent's infrastructure is unable to meet our community's needs, the City of Red Wing has been exploring a Fiber-to-the-Premise project with a goal of improved connectivity for our schools and government facilities along with enhanced economic development capabilities and services to all businesses and homes in Red Wing.

The City of Red Wing has been involved with fiber optic connectivity for the past decade. In the late 1990's, the City partnered with Goodhue County to interconnect City Hall, County Offices, the Red Wing Library, the Housing and Redevelopment Authority, the Port Authority, and eventually Red Wing Public Works with fiber optics.

In 2004 the City and the Red Wing School District began discussions on how remote Public Works facilities and neighborhood schools might benefit from a robust fiber optic connection. The Red Wing School District was unable to meet state mandates for online testing due to the inadequate systems employed by current incumbents. As a result the decision to establish a critical "fiber loop" that could reasonably be extended to a Fiber-to-the-Premise initiative was researched.

HISTORICAL TIMELINE

August of 2005: over 70 people attended a kick off meeting as we applied for a "Get Broadband" grant from the Blandin Foundation.

- Grant fund partners: Red Wing Shoe, Fairview Hospital, Lawrence Transportation, Goodhue County, Minnesota State College-SE Technical, Red Wing School District, Red Wing Port Authority, and City of Red Wing.
- Directed by City Council to determine the cost of interconnecting government facilities and study the feasibility of a community broadband network.
- Broadband Leadership committee formed.
 - Joan Foot, Red Wing citizen elected as Chairperson.

- First meeting attended by 40 community leaders and local service providers.

April 2007: Joint School Board, Port Authority Board and City Council meeting held to identify needs and discuss how to proceed with researching fiber.

- Broadband Wizard engineering study presented
- Cost is approximately \$1.5 million to build loop

January 2007: City Council announces that the Red Wing Port Authority Director, Myron White is to take leadership of the fiber project.

- Community taskforce is established

Sept - December 2007: Dr. Milda Hedblom leads community taskforce through 6 workshops.

- Presentations by potential service providers
- Overview of ownership models
- Invitations to current providers to participate

April – December 2008:

- Monthly meetings with community taskforce
- Red Wing Connect Booth at River City Days

December 2008: Feasibility study accepted by City Council

January 2009: City of Red Wing staff regroup and prepare for next steps.

February 2009: attending a TISP forum on federal stimulus

April 2009: signed resolution with HBC

CURRENT TIMELINE

January 2010	HBC received rejection letter from NTIA
February 2010	CNN interested in doing a story about HBC and their application for Southeastern Minnesota
February 22, 2010	Public meeting with guest speaker, Gary Evans
March 15, 2010	deadline to apply for second round

GUIDING PRINCIPLES

- Secure and robust network
- Shared fiber optic infrastructure for school district and government facilities
- Ultra high-speed and scalable broadband for Economic Development

WHY GOVERNMENT GETS INVOLVED

Broadband becomes a political and governance issue in communities that believe they suffer from a lack of affordable, high-quality access. The broadband gap may take several forms:

- Market failure in which private-sector providers have not deployed to a majority of the population
- Pricing that makes broadband unaffordable to some or most citizens
- Quality of service that is judged inadequate, whether due to slow speeds, service interruptions.

Broadband Holes In Red Wing we have ample copper resources in some areas and majors holes in others. The goal in creating a fiber optic loop is to reach all areas of the community. Identifying holes may bring the government into direct competition with private carriers and geographic markets in which the carriers have demonstrated little interest to build.

Broadband Promotion Sometimes communities want to invest in broadband in order to make a statement. They may chose to wire the local airport, central business district, parks or other zones as a business development effort. Creating a fiber backbone affords us the ability to create wireless hotspots in public areas of the community. It's not a matter of making money; it's about keeping our community viable.

Windom, Minnesota is operating a municipally owned network and the news report indicates they are 1million in the hole. They are exactly where they planned to be at year 3 – their break even isn't until year 5. They have had to add more technicians because they are overwhelmed with installs. The system is a huge success in Windom.

COPPER VS FIBER

Characteristics	Copper	Fiber
Technology	Based on one hundred year old technology (DSL) or fifty year old technology (cable modem)	Active fiber system use electronics designed specifically for high bandwidth applications and services
Quality of Service	The quality and age of the copper cable affects service. Asynchronous connection- slower upload than download	Fiber provides high reliability end to end. Synchronous connection – same up/down speeds
Distance limitations	Dependent upon the distance from telephone switches. Higher speed DSL service are limited to as little as a few hundred feet.	Fiber signals can travel many miles.
Capacity	Copper has very low capacity and has trouble delivering even a single channel of HDTV unless the subscriber is very close to network distribution points.	Off the shelf fiber systems can deliver several channels of HDTV today and can be upgraded easily.

RESOLUTION NO. 5983

A RESOLUTION SUPPORTING THE APPLICATION OF HIAWATHA BROADBAND COMMUNICATIONS, INC., TO OBTAIN FEDERAL STIMULUS GRANT FUNDING TO CONSTRUCT AND OPERATE A HIGH-SPEED, FIBER-TO-THE-PREMISES BROADBAND NETWORK IN THE CITY OF RED WING MINNESOTA

WHEREAS, The City of Red Wing, Minnesota ("City") is a historic river city with a population of 16,000 residents located approximately 60 miles south of the Twin Cities along the upper Mississippi River; and

WHEREAS, Red Wing ranks as one of the leading manufacturing cities in Minnesota producing a variety of products including shoes, pottery, leather, linseed oil, safety, and robotic products and is also home to a regional medical center, and a two-unit, 550 megawatts each, nuclear power plant that is located within the corporate limits of the City; and

WHEREAS, The City consists of a densely populated city core with substantial portions of the community extending into rural farmland. The City has long desired to have a fiber optic, symmetrical network capable of up to 1 gigabit speeds on a network available to both residents and businesses throughout the City (hereinafter the "Fiber Network"); and

WHEREAS, In 2005 the City formed a staff Fiber Committee due to the need to interconnect our government facilities and educational institutions; and

WHEREAS, In 2009 a "Fiber Now" Citizen Advisory Panel was created to review and consider options to develop a Fiber Network to benefit Red Wing citizens and businesses; and

WHEREAS, The City maintains that a Fiber Network with dedicated high-speed capabilities to and from residential and commercial customers is fundamental to maintain and improve education, healthcare, government, and the economic vitality of the City and would foster the growth of telecommuting, telemedicine and other applications the City does not currently have access to with the existing level of service offered in the City; and

WHEREAS, Other cities and towns in Minnesota and around the country are receiving access to such high-speed broadband service which places the City at a competitive disadvantage; and

WHEREAS, In early 2008 the City retained a professional consulting firm to analyze and prepare a report to the City outlining the costs and benefits of constructing a Fiber Network in the City. In November 2008 the City completed a Fiber to the Premise Feasibility Study that supports the need for a Fiber Network in the City and outlines plans and specifications for such a Fiber Network; and

WHEREAS, On February 17, 2009 President Obama signed into law the American Recovery and Reinvestment Act of 2009 which provides federal agencies with \$7.2 Billion in stimulus funding for the provision of high-speed broadband service across the country; and

WHEREAS, The City is interested in partnering with a regional, private company with experience and expertise in constructing and operating broadband networks to work with the City to apply for federal stimulus funding to realize the benefits of a Fiber Network for the City; and

WHEREAS, Hiawatha Broadband Communications, Inc., located in Winona, Minnesota (HBC), is a local Internet Service Provider, cable television operator, and telephone service provider which offers broadband services to communities just south of the City; and

WHEREAS, HBC has been recognized as a successful over-builder with a proven track record having constructed fiber rich networks and operated systems capable of delivering the level of service desired by the City; and

WHEREAS, HBC would like to partner with the City to apply for federal grant funding to bring a fiber optic based, high-speed broadband service to the City of Red Wing as expeditiously as possible; and

WHEREAS, HBC has proposed a regional network that will include the adjacent communities of Lake City, Cannon Falls and under-served/unserved areas along the route to provide a truly regional network that will achieve the City's goals of improving education, healthcare, government, and the economic vitality of the City; and

WHEREAS, The City understands that HBC intends to provide dedicated network capacity interconnecting all governmental facilities and educational facilities in the City allowing for internal voice, video, and data services and maintain a strong local presence, to include a local office and local employees, all of which are reasons why the City, the City Fiber Committee, and the Fiber Now Citizen Advisory Panel support HBC's application for federal grant funding for this project; and

WHEREAS, The City acknowledges that HBC has indicated interest in discussing the possibility of the City having ownership of the Government/Education loop. Further discussion to better define this partnership is needed. The City will require a Memorandum of Understanding that outlines this partnership prior to construction.

NOW, THEREFORE, THE CITY OF RED WING DOES HEREBY RESOLVE AS FOLLOWS:

1. Each of the foregoing recitals are hereby incorporated by reference.
2. The City fully supports the application of Hiawatha Broadband Communications, Inc., to seek federal grant funding to build a high-speed, fiber-to-the-premises broadband network in the City of Red Wing, Minnesota.