



BROADBAND AND TELECOMMUNICATION DRAFT RECOMMENDATIONS

Introduction

The City of Dayton is at a crossroad regarding broadband availability for municipal purposes, progressive local stakeholder uses and economic development opportunities. Although the City currently benefits from some limited competitive cable providers and several options for competitive telecom services, the City has done little to effectively leverage these local investments to support robust public applications and foster an efficient City workforce. In addition to the local private telecom investments, the City and other adjacent political subdivisions own and/or control an ever-increasing amount of communications infrastructure. It has become quite apparent, especially in light of the robust broadband deployment and development that has been occurring elsewhere in the State of Ohio and the United States, that the City is not fully leveraging its existing communications investments in broadband and telecommunications in a way that allows it to develop and sustain an environment that creates new economic opportunities and acts as a catalyst for change and growth.

In today's economically competitive world, the City no longer competes only with other Ohio major metro areas and its own suburbs — it competes in a world market. Now, to effectively compete for jobs and residents, the City must be able to significantly differentiate itself from other communities. It must benchmark current assets and liabilities and implement a leading-edge broadband connectivity plan that will ultimately result in the creation of jobs, new workforce education and diverse economic development opportunities. In addition, any truly competitive broadband vision for the City should address the availability of broadband services at affordable rates for City residents and businesses.

With the realization that the City stands at a crossroad regarding broadband availability for public applications and economic development opportunities, it's creating a comprehensive broadband plan.

City of Dayton American Recovery and Reinvestment Act Grant Requests

In 2009, American Recovery and Reinvestment Act funding (Broadband Stimulus Funding) became available. In an effort to move toward comprehensive broadband deployment in the City and to ensure it's able to participate in the Broadband Stimulus Funding program, in late August 2009, the City filed two federal stimulus applications under the Department of Commerce Broadband Technology Opportunities Program (BTOP). A main purpose of BTOP funding is to award grants allowing the deployment of broadband infrastructure in underserved areas and to enhance broadband capacity at public computer centers. BTOP has a central focus of creating jobs and stimulating economic growth.

Dayton's first BTOP application is an approximately \$7 million grant request to implement a hybrid wireless and fiber broadband system in the City, with infrastructure to be deployed across Dayton's 55 square miles, all driving broadband services to residents, businesses, public service agencies, nonprofits and other community anchor institutions. The proposed wireless network would deliver broadband at speeds exceeding 4Mgb/second. Additionally, the network would deliver real-time mobile communications for healthcare and advanced public safety communications, provide added connectivity for utilities and businesses, promote regional efficiencies, foster job growth, increase and encourage broadband adoption, and enable all stakeholders to have access to a broadband connection that is not only economically reasonable but technologically robust and advanced. In addition, the proposed network will make available increased local connectivity and bandwidth, which will facilitate and sustain future economic growth. Specifically, the BTOP infrastructure grant would allow the City and other entities to deploy several practical applications including, but not limited to:

- Affordable residential service: Wireless internet service providers will be selected to provide wi-fi service throughout the City for residents at a reduced monthly rate of approximately \$24.95.
- Automatic (water) meter reading: Wireless capabilities will be utilized to deploy a wireless metering system. In addition to significant cost savings, the City will be able to monitor water use in real time, identifying leaks and other problems, and provide monthly billing to customers (as opposed to the current quarterly billing).
- Public safety: Ubiquitous wireless coverage will be provided for the City's public service entities, allowing for video connections between police cruisers and headquarters, e-citation, and other public safety enhancements.
- Smart Grid technology: Broadband infrastructure will be made available to Dayton Power & Light in its Smart Grid project and will assist the company to reduce customer bills and make the power grid more efficient.

Dayton's second BTOP application is an approximately \$700,000 grant request filed in partnership with Dayton Metro Library. It proposes to expand and enhance existing public computing centers at the library and Dayton Recreation Center, as well as to create a new public computing center by renovating an underutilized library branch. This application will make broadband (and the ability to be connected) in the City readily accessible and freely available to large numbers of stakeholders who until now have been completely underserved.

Economic Development

Utilizing high-speed broadband networks for economic development is a relatively recent but effective strategy for municipalities. High-speed broadband networks are utilized by virtually every kind of business, but are especially utilized by data-intensive businesses — the kind of businesses the modern economy is creating. For example, the proposed fiber network included in the BTOP funding request could be utilized by the City as part of an economic development package to attract large businesses or corporate headquarters. Unlike tax abatements, granting the right to use a pair of fibers will not disappear after a term of years, and allowing a new or existing business to use fiber does not hurt the tax revenues of the City or the local schools. From a business point of view, the free or inexpensive use of a pair of fibers would allow the business to attach to the fiber whatever type of electronics it desired to provide itself with an almost unlimited amount of bandwidth and would be purely agnostic as to the

actual service provider or type of telecommunications or broadband service used. This would allow a business to cut costs and provide itself with superior connectivity, an attractive inducement for most large businesses. Alternatively, the City could possibly compete enter into an arrangement with a third party to provide bandwidth to potential businesses. This bandwidth could be delivered at lower cost and provide superior services to small- and medium-sized businesses that may not have the technological capability of using and maintaining (“lighting”) the fiber themselves.

Both these concepts have been successfully utilized regionally. In central Ohio, the City of Dublin, which boasts more corporate headquarters than the City of Columbus, owns an extensive fiber optic system that serves both Dublin and most of remainder of Franklin County. Dublin has granted rights to use fiber to various entities as part of its economic development package and believes it has created well more than 6,000 jobs. These are high-paying jobs, primarily at corporate headquarters. The City of Dublin also has utilized fiber as an inducement for businesses to stay in Dublin by giving pairs of fiber to existing businesses in return for agreements to stay in Dublin.

The other approach, lighting the fiber by a third party, has been pursued to great success by another central Ohio jurisdiction, the Village of New Albany. New Albany has retained a third party to light and operate its fiber optic network, which serves the entire business district of New Albany. Although this New Albany fiber optic project only has been operational for a year, it already is credited with attracting a large insurance data center (Motorists Mutual) and assisting the Village in retaining another long-time resident commercial business (an existing insurance company).

The City of Dayton could position itself to utilize either (or both) models described above if the BTOP grant is awarded to the City.

Broadband Opportunities

In addition to the specific applications mentioned above, an expanded and enhanced broadband telecommunications network would also provide for, among many other things:

- high-speed voice, data and video communications for businesses (businesses could lease space rather than construct their own lines);
- e-Health networks (electronic medical records, health information networks, virtual healthcare, etc.); and
- direct interconnectivity among community anchor institutions (educational, research and development, healthcare, and business).