Gig.U and Raleigh Connected Partnership

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Project Initiation and completion date

The Raleigh Connected initiative began in October 2010 and the Gig.U project kicked off on July 27, 2011. The City of Raleigh and North Carolina State University have a long-standing history of collaboration, therefore partnering locally on the national Gig.U project is logical to benefit the surrounding community. Both initiatives are ongoing and do not have set completion dates.

Organization and primary point of contact

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Business problem Description

In 2010, Forbes magazine named Raleigh as "America's Most Wired City."
However, the current market for broadband services does not address the
growing need for ultra-high speed access or low cost options in underserved
areas.

Today, universities use high-speed networks to educate and collaborate on
real-time research. Ultra-high speed networks have potential to impact
regional economic development, research, innovation and community enrich-
ment. Broadband networks facilitate community collaboration and research;
however, all broadband access is not equal, speeds can vary dramatically
between providers and localities.

High-speed networks enhance the use of technology to develop socially
impactful applications that use geographic information system (GIS) data to
enhance the ability to involve citizens in civic decisions to increase the po-
tential for community innovation. Access to data and information encourages
individuals to interact, participate and contribute to the processes in their
community.

Business solution description

The technology infrastructure of Raleigh Connected helps make city govern-
ment more efficient. However, the city's goal is much greater. In 2011, the
City of Raleigh began installing a 125-mile fiber network throughout the city.
The project was implemented in partnership with the City of Raleigh Pub-
lic Works Department's traffic signal project to help reduce installation and
project management costs. The fiber network will not only meet the City of
Raleigh's needs, but also provide access for partner organizations to connect
their facilities, connect to the Internet through our partners, and connect
with each other. The City of Raleigh seeks to partner with like-minded organi-
zations, such as Gig.U , to support local innovation, create jobs and improve
the quality of life in Raleigh communities.

The City of Raleigh has enlisted a consultant to conduct a fiber needs as-
sessment and develop a business plan, a marketing plan and a best practice
strategy for the city's fiber network. The Raleigh fiber network positions
Raleigh to participate in national efforts, such as Gig.U, to build a high-speed
broadband network. As we develop the fiber network business model, the
consultant will document the current public and private fiber inventory and
develop a competitive strategy for the city's technology resources based on
the following statement of work:

- Telecommunications Infrastructure Inventory Report and Maps
  The inventory report and maps will show where broadband exists
  today and give insight into areas that need additional infrastruc-
  ture for the expansion of broadband services. The critical broad-
  band access and telecommunications infrastructure information
  will lay the foundation for broadband improvement plans and how
  it may integrate with the city's fiber network.

- Fiber Needs Assessment Report
  Upon completion of the fiber assessment meetings and inventory,
  we will have identified opportunities to create partnerships for the
  use, sharing and possible expansion of the fiber network.

Special attention will be focused on:

- Promoting broadband access and usage to un-served and underserved areas of the city

- Integrating other city departments such as public safety and environmental services

- Supporting economic development initiatives as appropriate

- Enhancing educational services

- Developing partnerships to sustain and expand the fiber network

- Business Plan
  The business plan will consist of organizational models that iden-tify administrative, marketing and operational aspects for the city-wide fiber network. The consultant will work to identify and docu-ment the most effective processes to support the business strategy, marketing program, operational development, legal development, financial projections, and other major components as required. They will develop the business plan in partnership with the city to ensure all city goals, as well as restrictions, will be addressed. It is expected that this business plan will be used as a tool to seek grant and other funding as needed.

  The City of Raleigh potentially has assets that can be used for the expansion of the local Gig.U network such as:
  - Existing fiber (dark and light)

  - Rights-of-way

  - Points of presence

  - City facilities

The national Gig.U project will engage current and potential partners to discuss providing university communities with world-leading networks. Lo-cally, the City of Raleigh, in collaboration with local municipalities—the city and county of Durham, Chapel Hill, Carrboro, and potentially Cary—and other cities around the nation are partnering with the Gig.U initiative.

Gigabit Squared , a broadband Internet startup, has raised $200 million in funding to build out high-speed Internet for the Gig.U communities. Gigabit Squared is partnering with the Gig.U project to select which universities will get the new infrastructure through a competitive Response for Proposals (RFP) process. The successful communities will also participate in a brand new program headed up by Gig.U and Gigabit Squared called the Gigabit Neighborhood Gateway Program. The program will essentially use the new super high-speed Internet to drive innovation in education, heath care, and other sectors of the community.

With the advancements that Raleigh has made in the development of a broadband infrastructure strategy, and local collaborative efforts around broadband, digital inclusion, and open access, Raleigh has been asked to participate in the RFP response to Gigabit Squared.

The Greater Raleigh Chamber of Commerce recommended the Triangle J Council of Government as the coordinating body for the development of the RFP response to Gigabit Square. The Triangle J Council of Government has enlisted a local firm to prepare the RFP response to be submitted to Gigabit Squared in September 2012.

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Benefit to government

In Raleigh, the initiative unites local government and universities in a partnership to potentially share existing assets in an open access model. Collaboration on establishing high-speed network connectivity will support local innovation and help ensure Raleigh remains competitive in the 21st century global economy. Ultra-high speed networks will enable research universities to continue to collaborate in advanced research to develop new applications that can improve existing industries and services and support the creation of new ones.

Ultra-high speed networks can provide immediate return on investment by reducing travel costs and improving service delivery through the expanded use of video conferencing, real-time collaboration, and GIS data. The expanded use of GIS data promotes the development of location-based mobile applications and innovative solutions to providing citizen services.

Benefits to customers

These ultra high-speed networks will help the region remain competitive in the global economy. By participating in this project, we help ensure that our city and university continue to attract businesses, entrepreneurs, employees, faculty and students. Establishing ultra-high speed networks helps support a knowledge-based economy that uses information to stimulate economic growth. Such networks can enable new levels of effectiveness in all economic sectors. For example, within healthcare, ultra-high speed broadband allows physicians to share digital images and collaborate with colleagues in other locations on a real-time basis. The expanded use of GIS data promotes the development of location-based mobile applications and innovative solutions to providing citizen services.

Best practices employed (e.g., governance, relationship management, communication and marketing, etc.). That is, what business practices contributed to the success of this project, helped maintain commitment, funding and adoption.

Relationship management is key for collaboration and has allowed the initiative to take advantage of existing local relationships, organizations and associations to rapidly expand multi-jurisdictional partnerships and establish a governance structure. Members of a project team are following established project management best practices to manage tasks and deadlines to gather information and prepare a response to the Gigabit Squared RPF.

This initiative exemplifies the business value of bringing together city and university CIOs, City Attorneys, City Managers and regional leaders to develop an approach to promote economic development, education, innovation, and community enrichment. The partnership is focused on urban and rural empowerment by seeking ways to connect individuals, universities and communities.

The initiative has included a technological and economic assessment of the

current circumstance that includes a mapping of existing network capabilities, economic and market assets, and a gap analysis to prioritize where to invest. Investment is planned with an eye toward stimulating and sustaining innovation, market development, and improvements in effectiveness of current lines of business, and connecting underserved populations and industry.

The initiative is motivated by a "future view" of global and local economics. Economic and market forecasting have been employed to drive careful but deliberate investment to properly prepare the region so it is poised to be a significant participant in future economic opportunities in all sectors including academic and research, medicine and telemedicine, manufacturing and services.

The initiative has employed transformational and change management discipline to properly prepare organizations and communities for ongoing change, or change competency, going forward. This has included accounting for culture, organizational structures, processes for training and skill updating. Citizen support has been sought and sustained through multiple means for involving citizens and communities through marketing, communications, and outreach using available channels such as civic groups and the press. These approaches not only build awareness and participation, but also citizen ownership, enthusiasm and support. All of these efforts contribute toward a positive future view for the City of Raleigh and the surrounding region. Leadership will continually evaluate effectiveness of current practices and maintain a spirit of learning to also continually identify, evaluate and apply effective methods for governance, strategic planning, economic evaluation, operations, business intelligence and analytics, funding, and change management.

Describe why and how this collaborative effort is transferrable to other jurisdictions.

Gig.U is a national project, with over 30 universities located in municipalities throughout the country. Each municipality potentially has underutilized assets that could benefit the Gig.U program. These universities, municipalities and organizations can follow the model established by the City of Raleigh, North Carolina State University, the Raleigh Chamber of Commerce, and the Triangle J Council of Government to partner and seek funding and support to establish local ultra-high speed networks.

Every community in the United States must take a critical, realistic view of current and future global economics and develop deliberate strategies for sustaining their local economies in the context of national and global economics. The City of Raleigh recognizes that all economies across the United States are in fact connected through a "networked economy." Raleigh can only reach its true potential if all other communities reach theirs. A national sharing of ideas, continual exploration and collaboration across national initiatives and communities benefits everyone. If other communities follow Raleigh's lead in developing capabilities for enabling innovation and economic growth, then the whole U.S. economy grows and prospers.

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References

*See http://www.raleighnc.gov/home/content/ITechAdmin/Articles/
Raleighconnected.html.*

See http://www.gig-u.org/.

See http://gigabitsquared.com/.

See http://www.tjcog.org/.