



The
UNIVERSITY
of VERMONT

The Vermont Legislative Research Shop

Rural Broadband Development

Broadband internet is a new generation of high-speed transmission service, which allows users to access the internet and internet related-services at higher speeds than modems.¹ While the economies in cities and urban areas have taken off with the advent of the information age, rural America has struggled to keep up. Extending broadband service to rural areas has the potential to create opportunities in rural communities that could foster economic growth, education, and healthcare²

US Government Programs

The Rural Utilities Service, under the United States Department of Agriculture heads one program to increase broadband for rural residents and businesses. The program provides loans to companies that are willing to provide broadband to rural communities. Since the beginning of this program in 2003, over \$658 million in loans have been allocated for rural broadband development. The President's 2006 proposed budget provides funding that will support and additional \$359 million in loans.³

According to the Department of Agriculture, communication is a very important tool for farmers. The ability to share information concerning a new strain of a disease could save crops and money. The aim of Agriculture program is to foster growth, develop business, and to develop critical community infrastructure such as fire, health, and police services.⁴

¹ Federal Communications Commission, Consumer & Governmental Affairs Bureau.
<http://www.fcc.gov/cgb/broadband.html>. Visited on 4/12/05

² United States Department of Agriculture, Telecommunications Program
<http://www.usda.gov/rus/telecom/index.htm>. visited on 3/31/05

³ United States Department of Agriculture,
<http://www.whitehouse.gov/omb/budget/fy2006/pdf/budget/agriculture.pdf>. Visited on 3/31/05

⁴United States Department of Agriculture, News Release 0480.04

State Programs

A number of states have implemented programs designed to spread broadband access to rural areas, including Mississippi, Kentucky, Virginia, Michigan and Maryland.

Mississippi

The state of Mississippi instituted the The Mississippi Broadband Development Act to help and urge businesses to invest and develop in the rural areas.⁵ This act has paid off in Mississippi, where Bellsouth has used the tax incentives that the state provided to deploy broadband through much of rural Mississippi.⁶

Kentucky

Connectkentucky is designed to encourage technological growth in Kentucky's 120 counties. State and local governments, universities and private sectors are pushing for broadband access among other technological advancements for Kentucky regardless of county. *Connectkentucky* offers support to the technology planning efforts of the Governor and to local community leaders. *Prescription for Innovation*, a program created by Governor Fletcher, will create leadership teams in each community. These teams will represent the needs of each community and will be responsible for the adoption of broadband in the state of Kentucky. According to *connectkentucky*, 14,000 new jobs are expected to result from Fletcher's initiative once full deployment of broadband is implemented. The GSP is expected to increase by 5 billion dollars annually. Communication towers and state-owned property will be used for wireless antennas in areas where broadband does not currently reach.⁷ *Connectkentucky* also provides "subsidized" technology consulting to companies, communities, and government entities that are expanding technology in the state of Kentucky. The economic development alliance also plans, funds and deploys broadband at a local level. The hope is to attract technology investments from companies and individuals. Private sectors benefit from supporting the alliance by gaining public relations with the citizens of Kentucky. The private investors also have access to a governmental affairs team.⁸

⁵Publication of Mississippi Development Authority
http://www.mda.state.ms.us/press/friday_facts/FF_20030627.pdf. visited on 3/8/05

⁶Publication of Mississippi Development Authority

⁷ connectkentucky, *Governor Fletcher's Prescription for Innovation Broadband Technology for the 21st Century Kentucky* http://www.connectkentucky.org/pdf/EXS_PresInnovation.pdf.

Visited on March 15, 2005

⁸Connectkentucky, *About connectkentucky* http://www.ky120.com/about_connected.html.
Visited on February 8, 2005

Virginia

In 2004 Mark R. Warner the Governor of Virginia had allocated \$12 million for broadband technology. “The initiative is a partnership of Virginia’s Tobacco Commission, the U.S. Department of Commerce’s Economic Development Administration, the Mid-Atlantic Broadband Cooperative, and others from the private sector, government, and the non-profit community. The project will be funded with \$6 million from the Virginia Tobacco Indemnification and Community Revitalization Commission and \$6 million from the U.S. Department of Commerce.” 700 miles of fiber optic cables will link 56 industrial parks, 20 counties and 5 cities in the southern region of Virginia. Funds from tobacco settlements will help to fuel the project. “This money is supposed to be used to strengthen the economies of our tobacco regions, and that is exactly what it is going to be used for.”⁹

Michigan

The Michigan Broadband Development Authority (MBDA) is an independent state government agency within the State’s Department of Treasury. The goal of MBDA is to attract investment to the state and provide affordable broadband access to Michigan communities. In 2004 MBDA was responsible for granting \$12 million in loans that went to 150 cities in 45 counties across Michigan. The Authority has the power to issue taxable and tax exempt bonds and provide assistance for companies.¹⁰ \$826,300 went to increase fiberoptic services to Michigan, which will lower community costs. For 2005 loans already approved, applications received and expected will likely reach \$35 million. One goal of the Authority for 2005 is to expand the Digital Divide Grant/Loan Program, which received \$4 million of a Community Block Grant in 2004 from the Federal Government. The Michigan State Housing Authority has provided \$50 million to MBDA in the form of credit thus far.¹¹

Maryland

Maryland’s Public Libraries’ Sailor Project connects libraries across the state. The Eastern Shore is not densely populated causing the counties in the area to fall behind in technological advancements. The project, already ten years old, is attempting to expand into more counties. Counties are currently seeking access to towers for Sailor Equipment. Each individual county has the responsibility of financing the extensions from public agencies to backbone sites. The wireless network will eliminate the need for T-1 lines, which are extremely costly. So far the network has cost \$600,000. The hope is to someday reach all eight counties on the Eastern Shore. Coordinating with interested parties and locating feasible sites makes this method tedious

⁹Official Site of the Governor of Virginia “Governor Warner Announces Major Technology Infrastructure Project for Southern Virginia”
http://www.governor.virginia.gov/Press_Policy/Releases/2004/Jun04/0618.htm. 3/14/05 Visited on 3/15/05

¹⁰Michigan Broadband Development Authority *Annual Legislative Report* March 1, 2005
http://www.michigan.gov/documents/GOV_ltr_annual_report_117894_7.pdf. Visited on March 31, 2005

¹¹Michigan Broadband Development Authority *Annual Legislative Report*

but the hope is that the network will eventually reach all eight of Maryland's counties residing on the Eastern Shore.¹²

Broadband and economic growth

A Brookings Institute study by Charles Ferguson attributes the Internet for much of the productivity revival experienced by the United States in the 1990's.¹³ Broadband is the leading information system driving military power and productivity today. Economists are becoming increasingly concerned over the digital divide as rural areas are lost in the technology revolution. "Unequal access to internet services is contributing to widening inequalities in income, wealth and power." Ferguson of The Brookings Institute speculates that U.S productivity will be reduced by at least 1% per year if broadband network is not improved.¹⁴ With the implementation of broadband in rural areas they are able to participate in the digital economy allowing them to experience new and improved services while increasing investment opportunities and business expansion.¹⁵

Compiled at the request of Representative Scott Orr by Katie Sheeran and Jonathan Wheatley under the Supervision of Professor Anthony Gierzynski on April 14, 2005.

Disclaimer: This report has been prepared by the undergraduate students at the University of Vermont under the supervision of Professor Anthony Gierzynski. The material contained in the reports does not reflect official policy of the University of Vermont.

¹² Robyn Lamb, *Maryland's Eastern Shore counties get wireless capabilities*, The Daily Record December 9, 2004. http://web.lexis-nexis.com/universe/document?_m=5bc3614807d49de63cc64517b0fcd25a&_docnum=33&wchp=dGLbVtb-zSkVA&_md5=99cd2825a17429eef6a5067a9cd3cbe7. Visited on 29 March, 2005

¹³ Charles H. Ferguson, "The United States Broadband Problem: Analysis and Policy Recommendations," May 31, 2002 www.brookings.edu/views/papers/ferguson/working_paper_20020531.pdf. Visited on April 14, 2005.

¹⁴ Charles H. Ferguson, "The United States Broadband Problem: Analysis and Policy Recommendations."

¹⁵ Ottawa 20/20 Ottawas Growth Management Strategy, *Broadband Plan*, http://ottawa.ca/city_services/planningzoning/2020/bb/8_0_en.shtml Visited on April 14, 2005