



KENTUCKY'S PRESCRIPTION FOR INNOVATION
BROADBAND FOR A 21ST CENTURY KENTUCKY

“The central question in assuring a brighter future for Kentucky is the wise investments in preparing its people to be capable and adaptable in a demanding technological age. This calls for wise and courageous leadership to recognize this fact.”

Dr. Thomas D. Clark

Paraphrased from his open letter to the legislature, May 20, 2004

TABLE OF CONTENTS

EXECUTIVE SUMMARY5

DELIVERABLES.....6

METRICS.....8

WHY KENTUCKY MUST INVEST IN BROADBAND9

Our Mission

ConnectKentucky is leading the way into a new economy for Kentuckians. By leveraging the latest in technology and networking, ConnectKentucky is ensuring Kentucky remains the place of choice to live, work, and raise a family.

**PRESCRIPTION FOR INNOVATION:
BROADBAND FOR A 21ST CENTURY KENTUCKY**



EXECUTIVE SUMMARY:

ConnectKentucky's primary initiative, *Prescription for Innovation*, is a comprehensive plan to accelerate technology growth, particularly in the areas of broadband deployment and technology literacy and usage. The initiative maintains four key goals for impacting statewide economic development:

- Full broadband deployment by the end of 2007;
- Dramatically improved use of computers and the Internet by all Kentuckians;
- A meaningful online presence for all Kentucky communities, to improve citizen services and promote economic development through e-government, virtual education, online healthcare; and
- eCommunity Leadership Teams in every county - local leaders assembled to develop and implement technology growth strategies for local government, business and industry, education, healthcare, agriculture, libraries, tourism, and community-based organizations.

Over the course of implementation of the *Prescription for Innovation*, statewide broadband availability and usage have increased by 53% and 73% respectively. An estimated 518,000 previously unserved households can now access broadband as private sector investment in telecommunications infrastructure has reached an unprecedented level in Kentucky. Currently, 93% of Kentucky homes can access broadband, on track to reach 100% availability in 2007. Home computer ownership has grown by 20%, and more than 100 counties are actively engaged in the eCommunity Leadership process to establish a nine sector technology growth plan for accelerating technology locally. Moreover, the rate of Kentucky's high-tech job growth is outpacing the national average.

ConnectKentucky is implementing the *Prescription for Innovation* initiative with operational support from the Governor's Office for Local Development, the Appalachian Regional Commission and the Department for Commercialization and Innovation in the Kentucky

Economic Development Cabinet. Additional state support is provided by the Finance and Administration Cabinet and the Education Cabinet.

ConnectKentucky and Kentucky's *Prescription for Innovation* were awarded the United States Economic Development Administration's 2006 Excellence in Innovation award. The award recognizes ConnectKentucky's *Prescription for Innovation* as a national leader in innovative strategies for economic development.

OPPORTUNITY:

Although broadband infrastructure on its own is not a silver bullet solution for prosperity, adequate access to **broadband infrastructure is an enabler for knowledge-based economic development and enhancing the lives of citizens and businesses**. Broadband Internet access enables enhanced education, healthcare delivery, government services, and entertainment. Full broadband deployment across the state is expected to result in **more than 15,000 jobs and \$5 billion added to Gross State Product annually**.

DELIVERABLES:

1. GIS-based Inventory Assessment

- Working community by community, ConnectKentucky will collaborate with the Kentucky Infrastructure Authority to produce a comprehensive GIS-based Inventory of existing broadband infrastructure and service availability, **a first in the nation**.
- The map will serve two purposes. The first is to ensure that state agencies, local government, and local economic development organizations are working together to make strategic decisions about regulation and technology investment. The second is to bring those areas of Kentucky with inadequate broadband access up to par so they can compete with the rest of the world via the Internet.

2. Community Implementation Plan

- Following the initial infrastructure assessment, ConnectKentucky will organize community leadership teams to contribute to the development of a Community Implementation Plan.

The purpose of the plan is to:

1. Establish a local leadership team to champion broadband expansion;
2. Identify community needs and wants through surveys and focus groups;
3. Raise community awareness and interest in broadband opportunities;
4. Identify gaps in existing versus desired infrastructure, based on local input;
5. Establish financial model for addressing gaps;
6. Complete documentation necessary to apply for federal funds;
7. Communicate quantified demand to private providers;
8. Public relations and communications efforts to encourage adoption.

3. Online presence for every local community

- ConnectKentucky will serve as a facilitator between local communities and Kentucky.gov to provide every local community an advance online presence with ready-to-offer citizen services (licensing and permits, meeting notices, etc.)
- State and local government investment in, and offering of, e-government applications, online education and health services increases citizen adoption of broadband technology.

4. Use of state-owned property and communications towers for wireless antennas

- Where appropriate, existing state and local government structures will be evaluated for use in deploying wireless broadband.
- Maintenance and management of state-owned towers will be outsourced to a private provider that will be responsible for conversion from analogue to digital.
- As part of the outsourcing engagement, towers will be made available, when appropriate, for expanding wireless broadband availability.

The initial steps outlined here are expected to create an environment ripe for investment in broadband infrastructure expansion. A map-based inventory will illustrate infrastructure gaps that need to be filled. As broadband demand is quantified and aggregated, the private sector business case will be strengthened in many communities, leading to private sector investment. Additionally, the Community Implementation Plans will provide necessary documentation and support for successful applications to the Rural Utility Service and other federal resources for

infrastructure expansion grants and loans. Finally, Kentucky's Statewide Broadband Initiative will evaluate the creation of a revolving loan and grant pool to be administered by KIA to support broadband expansion in the final leg of full deployment.

\$667 million+	Private capital invested in Kentucky telecommunications (unprecedented)
1.2 million+	Additional Kentuckians who have received broadband access since start of the <i>Prescription for Innovation</i>
92%	Percentage of Kentucky households that have access to broadband on track to reach 100% coverage by the end of 2007.
14,500	Number of new high tech jobs created (on track to exceed estimated 15,000 new tech jobs by 2007)
31X	Growth rate of Kentucky information technology jobs as compared to the national growth rate: 3.1 percent for Kentucky vs. 0.1 percent nationally.
100%	Percentage of Kentucky counties actively engaged in the eCommunity Leadership Team process (assessing needs, building interest, planning and implementing)
53%	Growth rate of broadband availability in Kentucky over the last two years. Kentucky households' access to broadband has grown from 60% to 92% over the last three years.
73%	Growth rate of broadband adoption in Kentucky
20%	Growth rate of home computer ownership in Kentucky
# 1	Kentucky's national ranking for expanding broadband

WHY KENTUCKY MUST INVEST IN BROADBAND:

- **Forty-six thousand (46,400) manufacturing jobs have left Kentucky since August 2000.**
- **Kentucky's rate of broadband adoption leads the nation, which means that Kentucky is adding broadband subscribers at a faster pace than any other state. In spite of that effort, as of now, Kentucky still remains behind the national average for broadband adoption.**

Kentucky's Statewide Broadband Initiative addresses each of these challenges by first identifying needs across the Commonwealth and then implementing community-specific plans. This initiative will expand broadband infrastructure, increase computer and Internet adoption, and ultimately increase the number of technology companies and workers in Kentucky.

In the *State Broadband Index*, TechNet provides three recommendations for state governments to significantly impact broadband deployment:

1. Ease regulatory roadblocks and hurdles with consistent and fair regulation.
2. Create supply-side incentives (financial and non-financial) for broadband deployment, using assessment maps and strategic planning tools.
3. Invest in demand-side policies to raise awareness and encourage adoption through e-government applications, online education and health services, and other applications that can drive consumer demand for broadband.

As demonstrated by his role in the passage of HB 627, "the rural broadband bill," Governor Fletcher is committed to a regulatory environment that does not oppose broadband expansion. Kentucky's Statewide Broadband Initiative will build upon this success by addressing the supply-side and demand-side issues that will result in full deployment and increased adoption.

Broadband infrastructure enables communities to provide a telecommunications asset to companies that require advanced communications capabilities. **Businesses increasingly rely upon broadband Internet access for company operations, connecting to customers, suppliers, and telecommuters.** The requirement for broadband access has become the norm for recruiting companies and workers, creating a chasm for communities that do not have adequate broadband infrastructure.

PROJECT PHASES & ASSOCIATED ACTIVITIES

[1] Assessment and GIS Mapping

- Local Resource Analysis and Inventory
 - Identify the broadband/telecom resources available now and in the future
 - Interview representatives from ILECs, CLECs, ISPs, Cable TV, Utilities
 - Develop detailed infrastructure GIS maps and tools
- Analysis and Summary
 - Gap analysis of the needs relative to available resources

[2] Community Implementation Plan

Strategic Action Plan

- Form Community Leadership Team – Community Kick-off Event
 - Cross organizational team of local government, business, education leaders etc...
Responsible for leading effort
- Community Needs Analysis
 - Identify the infrastructure and application needs of business (large and small), local government, emergency services, public safety, education, healthcare providers, and citizens within a community
 - Interviews, Town Hall Meetings, Focus Groups, and Web-based Surveys
- Develop Buy-in at the Local and Regional Levels
 - Work with constituents to develop support and buy-in
 - Informational campaign, web site, newspaper articles, town halls meetings, interviews, focus groups
- Development of Vision
 - Construct a vision of where the leadership wants the community to go
- Analysis of Opportunities
- Gather Best Practices from other Communities
- Assess Revenues, Costs, Benefits, and Risk
 - Identify Potential revenue streams
 - Address Policy Issues

- Identify Funding Options
- Develop an Implementation Plan
 - Actionable plan with demonstrated ROI
- Ongoing Marketing of Plan to Build Community Support

Funding Assistance

- Funding Support
- Grant / Proposal Development and Management
- Public Private Partnership Development
 - Identification of potential partners which have a tie, interest or obligation to a community
 - Articulate value and return on investment in order to recruit partners to form the partnership
 - Management of the partnership and assistance in helping partners realize value in the relationship

Project Management (Infrastructure Expansion Phase)

- Project Planning and Estimating
 - Development of Project plans: management of scope, quality, effort, risk and timeline
- Team Building
 - Assembly of project resources which may include sub-contractors and service providers
- Managing Project RFP and Procurement Process
- Project Initiation and Ongoing Project Management

Demand Creation

- Builds off of the Infrastructure Assessment
- Develop an Applications Template which can be used across rural communities
- Incent the development and deployment of web-based applications
 - Work with public and private entities to build business case with achievable ROI
- Communications and public relations to build awareness of benefits

Contact Information:

Sage Cutler
 Central Region Project Manager
 ConnectKentucky
scutler@connectky.org
 270.799.0874