



The Connected Nation Model: A Comprehensive, Statewide Broadband Expansion Strategy

Hawaii Broadband Task Force
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Taylor County, Kentucky: A Community in Economic Crisis



- In a county with a labor force of just under 11,000, a major well-known textile manufacturer suddenly shut down, leaving over 3200 people without jobs.
- As a result, the county's unemployment rate jumped to nearly 30%
- To make matters worse, over 40% of adults in county didn't even have a high school diploma.



Taylor County, Kentucky: A Community Transformed by IT



- Recovering from this economic loss became a community-wide task
- By leveraging IT, Taylor County was able to attract one of the world's most well-known Internet eCommerce companies to the county

- Today, Amazon.com operates one of its 28 world-wide distribution facilities in Taylor County
- Thanks to Taylor County's IT transformation, the county has not only replaced all lost jobs, but has achieved **a net gain of 600 new jobs** since the textile manufacturer shut its doors.



**Taylor County's story, along with others,
provided evidence that
information technology could be leveraged
to turn Kentucky's struggling economy around.**



**The need for a comprehensive strategy was realized
and ConnectKentucky was born.**



ConnectKentucky: A Comprehensive Strategy

The Mission: Connecting people to technology in world-altering ways: improving the lives of the formerly disconnected; renewing hope for previously withering rural communities; driving increases in the number of tech-intensive companies and jobs; and nurturing an environment for lifetime learning, improved healthcare, and superior quality of life.



ConnectKentucky's Accomplishments

- **95% of Kentucky households have access to Broadband (a growth rate of 53%) – on track to achieve 100% coverage by Spring 2008**
- **\$743 million in private capital invested in Kentucky telecommunications**
- **532,000 new households that have received broadband access since 2004**
- **100% growth rate in home broadband adoption**
- **24% growth rate in home computer ownership**



	<u>Before</u>	<u>After</u>
Percentage of broadband availability	60%	95%
Percentage of homes that use broadband	22%	44%
Number of counties with technology plans	0	120
Percentage of computer ownership	58%	72%
Number of counties with websites	40	114
Percentage of KY graduates who chose to remain in Kentucky to live and work	73%	86%
Percentage growth of Kentucky IT jobs	-7.8%	3.1%



Why was ConnectKentucky Successful?

- **Comprehensive/Statewide Strategy**
- **Market-based Approach**
- **Simultaneous Supply Enhancement & Demand Creation**



ConnectKentucky's Five Key Components

- **Street-Level Broadband Infrastructure Mapping**
- **Market Intelligence through Survey Research**
- **Private Sector Consulting Services**
- **Demand Creation and Planning at the Grassroots Level**
- **Computers for Underprivileged Households**



Key Component #1: Street-Level Broadband Infrastructure Mapping

- Using GIS mapping technology, ConnectKentucky secured infrastructure data from all of Kentucky's Broadband providers
- As a non-profit organization that exists outside of state government, ConnectKentucky was able to serve as a neutral entity that could protect provider data from open records requests and ensure data confidentiality through non-disclosure agreements (NDAs)
- Verify provider data at the community level



Where is Broadband Available in Kentucky?

Broadband Data Collection for the Commonwealth of Kentucky

Prepared By:
ConnectKentucky

Updated September 30, 2007



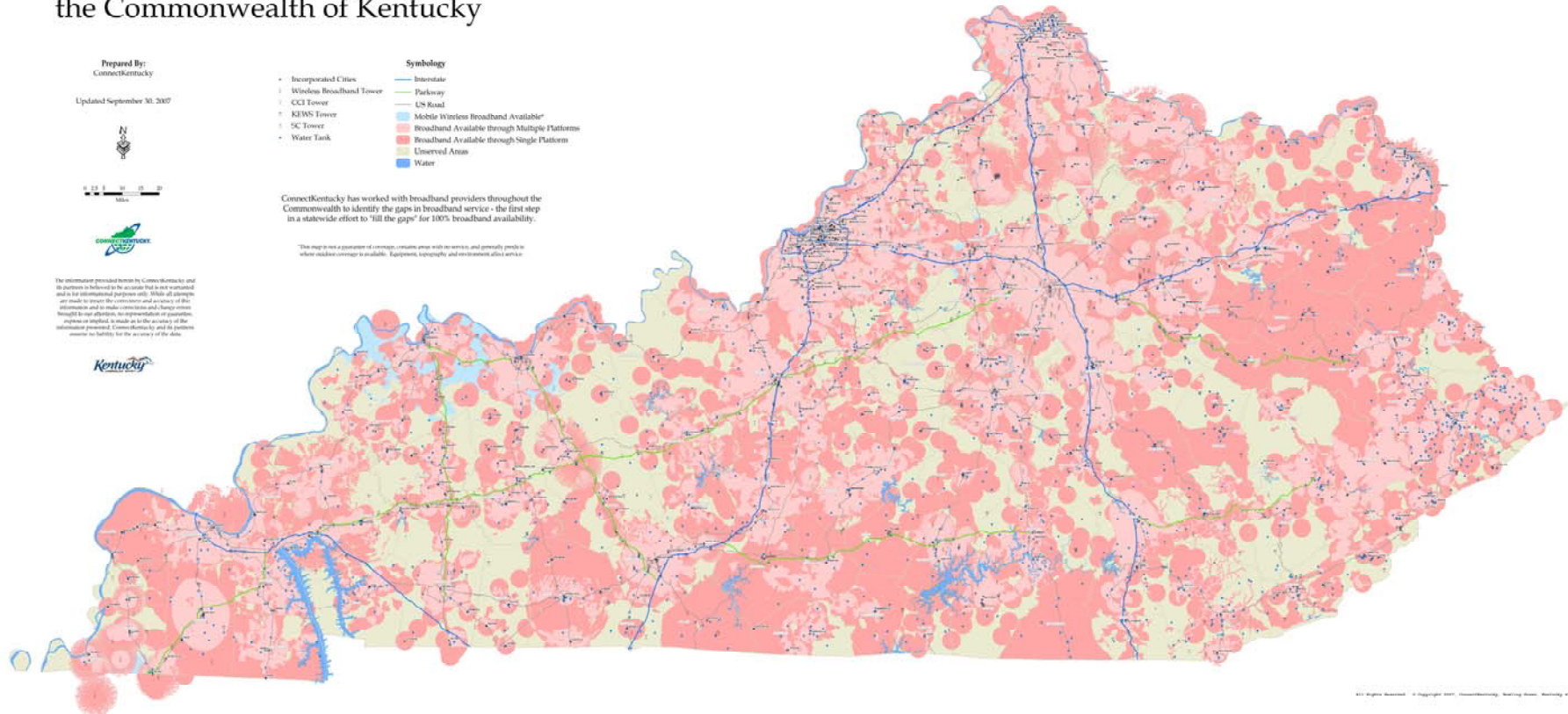
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- Symbology**
- Incorporated Cities
 - Wireless Broadband Tower
 - CCI Tower
 - KJWS Tower
 - SC Tower
 - Water Tank
 - Interstate
 - Parkway
 - US Road
 - Mobile Wireless Broadband Available*
 - Broadband Available through Multiple Platforms
 - Broadband Available through Single Platform
 - Unserviced Areas
 - Water

ConnectKentucky has worked with broadband providers throughout the Commonwealth to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

*This map is not a guarantee of coverage, contains areas with no service, and generally predicts where service is available. Equipment, topography, and environment affect service.

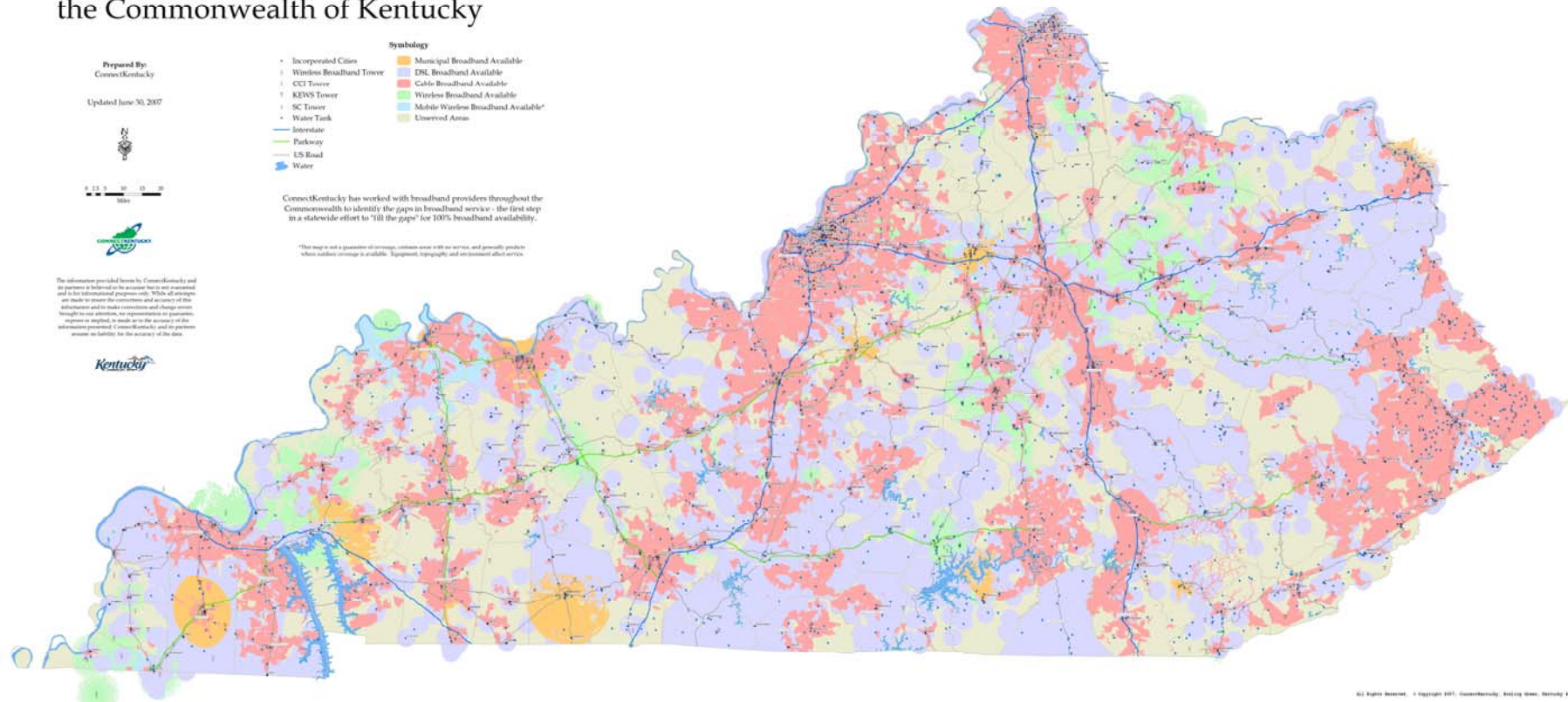


Map data provided by Esri, DeLorme, GeoEye, IGN, Aerotech, Earthstar, IGN, etc.



What types of Broadband are Available?

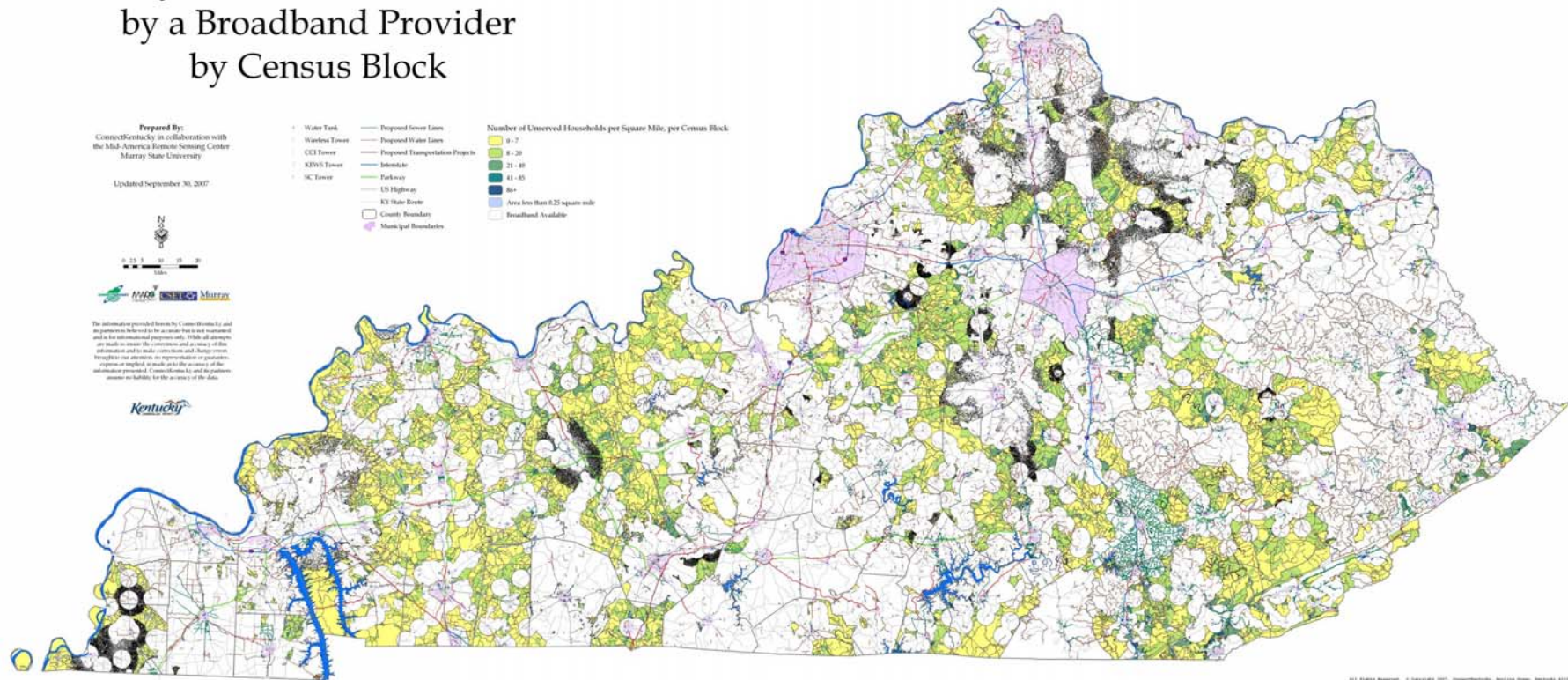
Broadband Data Collection for the Commonwealth of Kentucky





Supply Enhancement: Help providers IDENTIFY and REACH the unserved

Density of Households Unserved by a Broadband Provider by Census Block



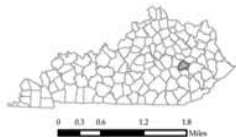
Density of Households Unserved by a Broadband Provider By Census Block

Lee County Kentucky

Prepared By:

ConnectKentucky in collaboration with
the Mid-America Remote Sensing Center
Murray State University

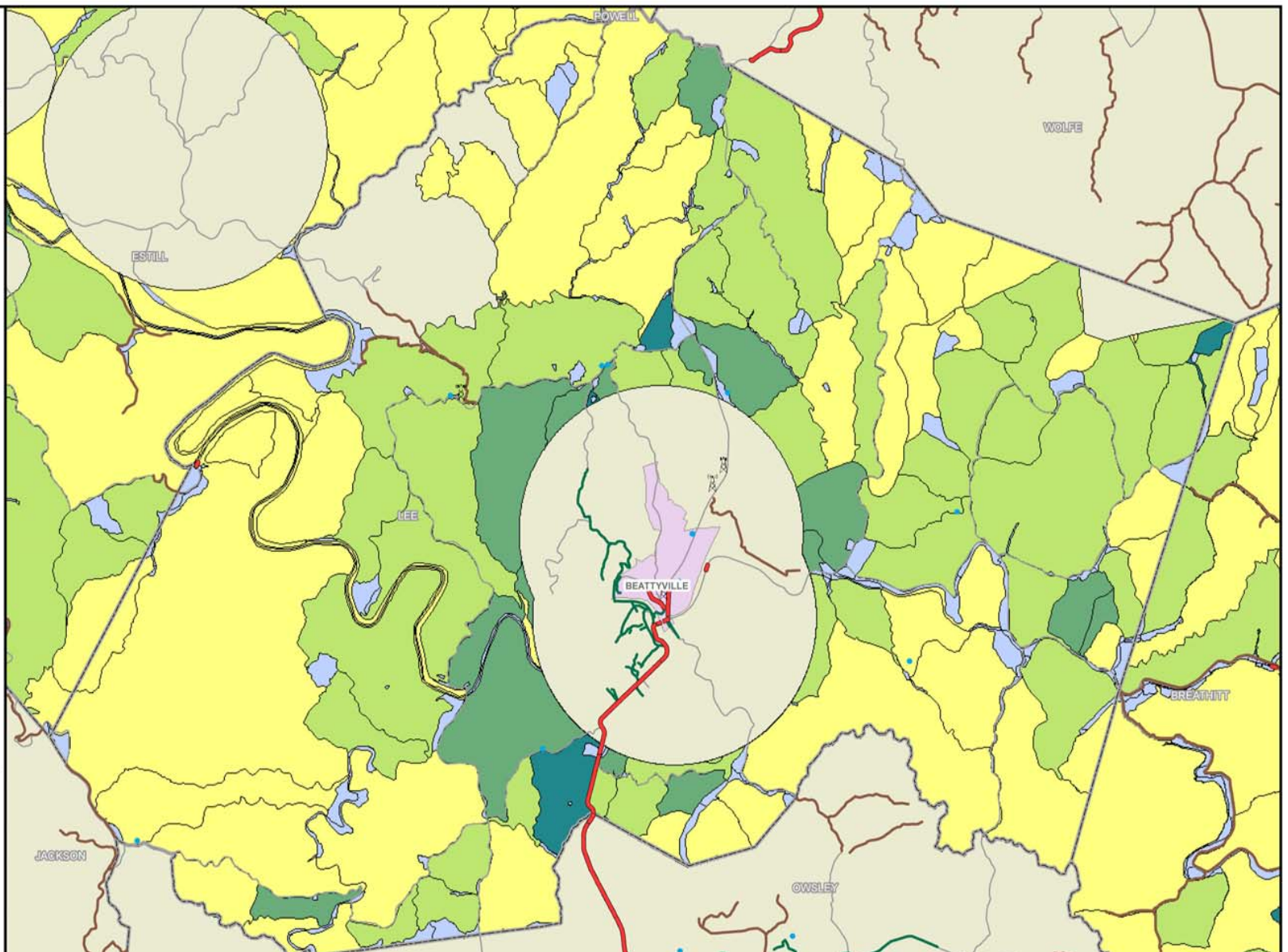
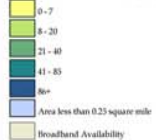
Updated September 30, 2007



Symbology

- Interstate
- Parkway
- US Highway
- KY State Route
- Proposed Transportation
- Proposed Water Lines
- Proposed Sewer Lines
- County Boundary
- Municipal Boundary
- Water
- X Wireless Tower
- X KEWS Tower
- X CCI Tower
- X SC Tower
- Water Tank

Number of Unserved Households per Square Mile, per Census Block

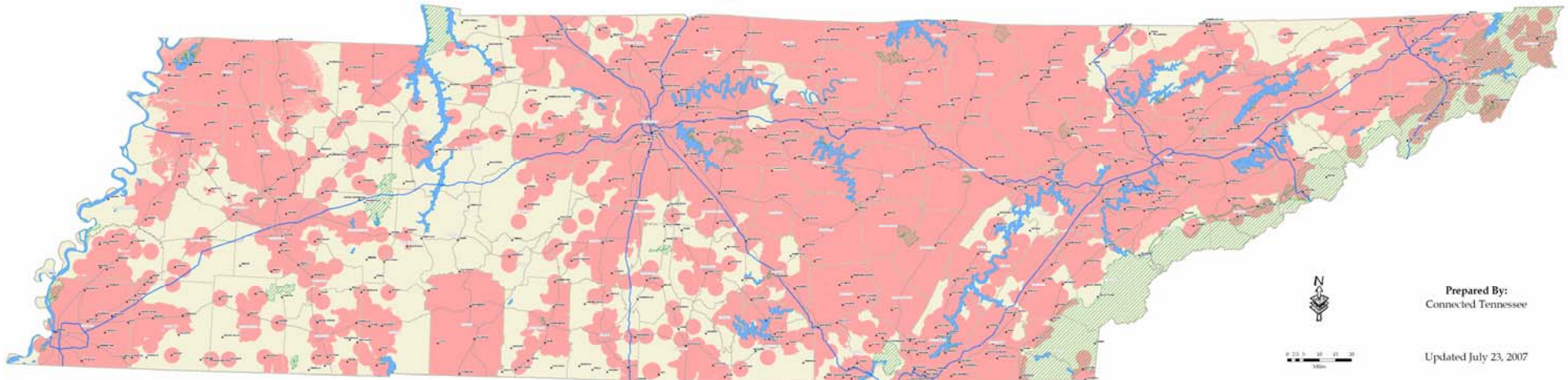




Where is Broadband Available In Tennessee?



Broadband Coverage for the State of Tennessee



0 25 50 75 100
Miles

Prepared By:
Connected Tennessee

Updated July 23, 2007

Symbology

- City
- Interstate
- US Road
- Water
- National and State Lands
- Broadband Availability

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With the support of Governor Bredesen, the Department of Economic and Community Development, the Office for Information Resources, and the Tennessee Broadband Task Force, Connected Tennessee has worked with broadband providers throughout the State to identify the gaps in broadband service - the first step in a statewide effort to "fill the gaps" for 100% broadband availability.

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Key Component #2: **Market Intelligence through Survey Research**

- **What are the barriers to adoption in a community?**
 - **Lack of availability?**
 - **Computer ownership?**
 - **Lack of knowledge to use it?**
 - **Perceived lack of value to one's life?**
 - **Cost is too high?**



Key Component #3: **Private Sector Consulting Services**

- **Work with all private sector providers to extend broadband services:**
 - **Identify the most appropriate technology**
 - Fixed wireless?
 - DSL?
 - Cable?
 - Mobile (cellular) wireless?
 - **Help providers build the business plan for expansion**
 - **Design and support communications effort to promote available services**



Key Component #4: **Demand Creation and Planning at the Grassroots Level**

- **Facilitate a county by county statewide technology awareness and planning campaign that:**
 - **Takes inventory of all the resources that the state and private sector have developed that could be deployed at the community level in a more coordinated fashion so as to build demand for computing applications and increase computer literacy;**
 - **Leverages existing regional and community leadership infrastructure for assessment and visioning in technology planning;**
 - **Monitors and measures positive impact over time**
 - **Coordinates technology planning for both private and public entities in every county to identify relevant applications and drive adoption across nine different community sectors;**



DEMAND CREATION: ConnectKentucky facilitated a county by county statewide technology awareness and planning campaign.

eCommunity Leadership Team

Community leaders from nine sectors provide the most comprehensive picture of the community in terms of broadband deployment. The team assesses and plans for broadband in each community.

Business
and
Industry

K-12

Healthcare

Libraries

Higher
Education

Community-
based
Organizations

Government

Agriculture

Tourism,
Recreation
and Parks



Key Component #5: **Computers for Underprivileged Households**

- Nearly all youths between 12-17 use the Internet for school work – but children from low income families are half as likely to have a computer at home
- In collaboration with the state, the private sector, and private foundations, distribute low-cost new and/or refurbished state-retired computers to the homes of underprivileged middle school students





NCLO's Success In Kentucky



- In NCLO counties, computer ownership among low-income families grew 4 times faster than similar families in other counties
- In NCLO counties, home broadband adoption among low income families grew 5 times faster
- Home broadband adoption among low-income families has grown more than 200% in NCLO counties



How can Connected Nation help Hawaii?



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