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CONNECTED TENNESSEE QUARTERLY



Small Town Providers Expand Their Reach

Ben Lomand, ECSIS, and Monster Broadband work to pave Tennessee's backroads with broadband

Connected Tennessee Partners Launch New Services

AT&T and Comcast bring customers the very latest in technology innovation

Broadband Blankets Entire Tennessee Towns

Chattanooga EPB and Pulaski Electric push their cities to 100% coverage



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THE TRAIL TO INNOVATION®

Winter 2010

Improving Lives Through Broadband and Technology

The twenty-first century is presenting Tennessee with a new challenge in preserving and improving its way of life. High-speed Internet connectivity is a modern lifeline to quality jobs, information, and vital services like telemedicine, e-government, and education. Never before in our nation's history has access to broadband been more vital – as evidenced by the recent American Recovery and Reinvestment Act of 2009 (ARRA) and the corresponding Broadband Data Improvement Act (BDIA). Connected Tennessee recently launched a new interactive mapping tool for viewing, analyzing, and validating broadband data available on our homepage at www.connectedtn.org. Called BroadbandStat, the tool allows users, for the first time, to build and evaluate broadband expansion scenarios using a wealth of data, including education and population demographics, current broadband speeds and availability, and research about the barriers to adoption. The tool also provides an instant feedback mechanism for consumers to validate broadband data electronically or via phone. As our nation moves toward a National Broadband Plan and Tennessee entities work to advance the expansion of broadband across our state, BroadbandStat will aid in grant writing, promoting broadband investment, and encouraging economic development.



To officially mark the launch of BroadbandStat, we wanted to provide you with an extensive update about the status of broadband expansion in Tennessee. Where is build-out occurring? Where is it expected? Where is existing service being improved upon? What's next? Consulting with our numerous valued provider partners, we have put together a detailed account of the very latest broadband expansion and upgrade highlights from across the state. From rural West Tennessee to the city streets of Nashville, we are shining the spotlight on some of the most noteworthy projects taking place in broadband expansion today. In this issue of *Connected*, we'll take you from wireless to mobile to fiber to DSL to cable to satellite to show you how your community is being connected to the rest of the world.

We'd also like to invite you to participate in the process. While we feel that BroadbandStat puts Tennessee at an advantage over other states in the arena of broadband expansion; it is just the first step in the mapping process. We encourage providers across the state to submit their data for inclusion and citizens to validate the accuracy of the coverage in their area in order for us to paint the most precise picture of broadband availability possible.

We hope you enjoy this issue of *Connected*.

Michael Ramage
Executive Director of Connected Tennessee

Connected Tennessee Partners

As a public-private partnership, Connected Tennessee partners with technology-minded businesses, government entities, and universities to accelerate technology in the state. For more information about what Connected Tennessee is doing to accelerate technology in Tennessee's communities, visit www.connectedtn.org.



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Pulaski Electric Turns to New Technology to “Energize” Customer Base

“The community of Pulaski first got our name on the map in the early ‘90s when we brought the first dial-up Internet to this area,” explains Pulaski Electric Executive Vice President Wes Kelley. “This time we wanted to go a step further and provide fiber to all homes and businesses in Pulaski.”

“Broadband access is very important because more and more resources and entertainment options are being moved online,” notes Kelley. “Today, quality of life and entertainment value expect that you will have a higher-speed connection.”

The quaint town of Pulaski, in Middle Tennessee, might be one of the last places one might expect to be home to a state-of-the-art, high-tech data center capable of hosting data from businesses around the country. But take a trip downtown to Pulaski Electric’s “PES Energize” office located in the historic courthouse, and that’s exactly what you’ll find. The data center, housed in a tornado-proof bunker, can store any size data from any location in the country -- and also serves as a hub for the city’s publically-owned fiber-optic network, which provides broadband

Internet to every home, school, and business within the city of Pulaski.

With everyone in the city able to access high-speed Internet, PES Energize has found new and innovative ways to utilize broadband in order to serve customers even better. It now offers online bill payment through its website at www.pesenergize.com. Customers can make a simple one-time payment, or sign up to make a recurring payment and receive an e-bill each month. If there is an electrical outage, Pulaski citizens can view a real-time outage map by clicking on the link at the bottom of the PES Energize home page.

Finally, customers on the social networking scene can also keep up with news and information from the PES Energize Facebook page at www.facebook.com/pesenergize for up-to-date information, photos, and other fun facts. Or follow them on Twitter at www.twitter.com/pesenergize. [★](#)

Related links:

www.pulaskielectric.org
www.pesenergize.com

“Broadband access is very important because more and more resources and entertainment options are being moved online.”

Wes Kelley,
Executive Vice President,
Pulaski Electric

Ben Lomand Connects Coffee County Businesses

Fiber: They say it's good for you, and nowhere is that more true than in modern communications. With a fiber-optic network now being installed by Ben Lomand Communications (BLC), two Coffee County industrial parks will soon experience the world of accessible, affordable broadband -- crystal clear telephone signals, versatile high-definition TV, and best of all, high-speed Internet.

"Broadband availability allows local businesses to remain competitive, operate more efficiently, and grow faster," says Bill Comer, chairman of the Coffee County Industrial Board. "This new infrastructure will significantly improve Coffee County's ability to compete for new industry."

"I can't say enough about Ben Lomand," adds Coffee County Mayor David Pennington. "They're bringing us into the twenty-first century."

The first phase of the project included Manchester Industrial Park and Coffee County Interstate Industrial Park. Phase two goes the rest of the way along Highway 41 to I-24.

Ben Lomand CEO Levoy Knowles cites the strong support of local authorities in acquiring state approval to serve Coffee County and receive statewide certification. "The Industrial Board, the local Chambers of Commerce and the county administration went out of their way to facilitate this advancement," he says, "and we're excited to bring these services into Coffee County."

Until now, the county has essentially been out of the broadband loop. With spotty or non-existent access, businesses had to purchase T-1 access on their own, at prohibitive expense. And yet, without that access they were the equivalent of a horse-drawn carriage on a freeway full of race cars.

Over fiber a signal travels at two-thirds the speed of light, and a single fiber-optic strand can deliver one gigabyte (one billion bytes) of information per second. With innovations like DVR, hi-definition TV, and Internet-based security systems being added to the growing Internet pages and files, unlimited bandwidth is a crucial factor.

Over the past seven years, Ben Lomand has invested over \$75 million bringing broadband and other high-tech



services to the upper Cumberland region. "We intend to continue creating a fiber network for all of Coffee County," says Knowles, "that will be fully integrated into our existing network in other counties."

Ben Lomand Telephone Cooperative was incorporated October 2, 1952, to provide local telephone service to rural Middle Tennessee. The company is based in McMinnville and now has more than 42,000 access lines covering 3,200 square miles of territory. The company began its diversification in 1993 by forming BLC, its wholly owned subsidiary. It was also the first competitive local exchange carrier in the State of Tennessee. The cooperative has over 17,000 Internet customers and 11,000 video customers. ☎

Related links:

www.blomand.net

Comcast Picks up Speed in Middle Tennessee

Connected Tennessee partner Comcast recently went from high-speed to higher speed, transitioning from broadband to wideband with the launch of DOCSIS 3.0 for residential homes across Middle Tennessee. Communities served by the new upgraded services include Murfreesboro, La Vergne, Smyrna, Rutherford County, Dickson, Dickson County, Kingston Springs, White Bluff, Burns, Charlotte, Pegram, and Waverly.

Comcast explains wideband as “a new echelon of Internet speed tiers, which will redefine the customer experience online and create a platform for Internet innovation in the years ahead.”

With the change, Comcast now offers speeds among the fastest available today, including the Extreme 50 tier with download speeds of up to 50 Mbps. Wideband also enables Comcast to double speeds for the majority of existing high-speed Internet customers at no additional cost, the company says.

“Comcast has the largest fiber-optic network in the nation, and with wideband we will utilize our existing fiber-optic



network that is already in the ground in neighborhoods across our footprint,” said John Gauder, market vice president for Comcast in Middle Tennessee. “And this is just the beginning. Wideband, combined with our fiber-optic network, will give us the capability of meeting the needs of our customers for many years to come by offering even faster speeds in the future.”

As part of the wideband deployment, Comcast launched two new premium speed tiers to its residential customers. The company says that both new services are ideal for households simultaneously using several computers or Internet-connected devices. They also will appeal to those who simply want some of the fastest speeds available today.

Comcast says that with Extreme 50, its customers can download a high-def movie (6 GB) in about 16 minutes, a standard-def movie (2 GB) in about 5 minutes, and a standard-def TV show (300 MB) in a matter of seconds. Customers with Extreme 50 also will be able to download digital photos, songs, and games faster than ever.

In addition to the new speed tiers, Comcast is also increasing speeds for most of its existing customers at no additional charge. 🌐

Related links:
www.comcast.com

AT&T Boosts Mobile Broadband Across the State



AT&T cell phone and broadband users in all corners of Tennessee are receiving better, faster coverage thanks to the addition

of new cell sites across the state. From the Knoxville skyline to the backroads of Erwin, the new towers are boosting wireless coverage and improving service for urban and rural users alike. The new cell sites are part of AT&T’s ongoing efforts to drive innovation and investment to deliver the benefits of smartphones and mobile broadband for customers.

“Our goal is pretty simple: we want you to have an extraordinary experience when you make a call, check e-mail, download a song or video, or surf the Internet on your AT&T

device,” said Gregg Morton, president, AT&T Tennessee.

AT&T’s expansion includes 19 new cell sites in Jackson, 16 in Knoxville, and 17 in Memphis. All network enhancements include initiatives to improve speed, capacity, and coverage.

AT&T will continue the trend by adding more than 20 new cell sites and will upgrade 525 sites throughout Tennessee in 2010. They invested more than \$1 billion in Tennessee from 2007 to 2009, adding 75 new sites and

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AT&T Boosts Mobile Broadband Across State

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upgrading 75 sites for its 3G network. The company is investing nearly \$19 billion in upgrading its networks nationwide.

The company is continuing to upgrade its network in response to growth in Internet usage and a 5,000 percent increase in wireless data traffic on its network in the last three years, AT&T officials said.

AT&T recently completed a software upgrade at 3G cell sites nationwide that prepares the nation's fastest 3G network

for even faster speeds. The deployment of High-Speed Packet Access (HSPA) 7.2 technology is the first of multiple initiatives in AT&T's network enhancement strategy designed to provide customers with the best possible mobile broadband experience, both today and well into the future. Faster 3G speeds will become available as AT&T combines the new technology with our second initiative during 2010 and 2011 to dramatically increase the number of high-speed backhaul connections to cell sites, primarily with fiber-optic connections,

adding capacity from cell sites to the AT&T backbone network.

For more information about AT&T's coverage anywhere in Tennessee, consumers can visit www.wireless.att.com/coverageviewer/. The online tool can measure the quality of coverage based on a street address, intersection, ZIP Code, or even a landmark. ★

Related links:

www.wireless.att.com/coverageviewer/

Local Broadband Provider Works to Reach the Underserved in West Tennessee

Electronic Communications Systems Internet Services (ECSIS) in Dyersburg provides broadband access to Dyer, Lake, Obion, and Lauderdale Counties – and lately, business is booming as demand in these traditionally underserved counties continues to increase.

“Our original start-up location was in Lauderdale County,” explains Bob Mayfield, managing partner for ECSIS. “We anticipated around 60 subscribers over a three-year period. We got that many in the first six weeks!”

In mid-2008, Connected Tennessee joined forces with ECSIS to assist the community of Nankipoo in winning a Community Connect grant through the USDA Rural Utilities Service. The Community Connect program is designed to supplement the cost of building broadband infrastructure into rural, unserved areas. The grant also provided two years of support for the Nankipoo Community Center which included computers and Internet access, along with start-up training, to Nankipoo area residents. Connected Tennessee assisted Lauderdale County with the

application process for this grant by mapping the demand by nearly 900 prospective new customers for broadband services and conducting propagation studies to determine the exact locations of currently existing technologies throughout the county. The success of the project was due, in large part, to the grassroots-level effort of the Nankipoo community, working with ECSIS and another local provider, West Tennessee Communications.

ECSIS has established two new towers in the last month, the most recent bringing service to citizens of Ripley, who previously had no access to high-speed Internet at all. They plan to keep the momentum going to connect rural West Tennessee by continuing to focus on Lauderdale and Dyer Counties and possibly moving into the largely unserved Haywood County. With a customer base around 1,500, ECSIS is literally bringing the world to fingertips of countless Tennesseans that would otherwise be cut off from the benefits of high-speed Internet access. Bob Mayfield credits the localized nature of their business as the reason for their success.



ECSIS's most recent expansion in Ripley

“When you get local officials working with local providers, the communication is so much better,” he notes. “Community leaders can be face-to-face with the providers. And that makes a difference.” ★

Related links:

www.ecsis.net

EPB Expands its Coverage in Chattanooga

EPB recently announced the expansion of EPB Fiber Optics services to more than 17,000 homes in specific areas within the City of Chattanooga, East Ridge, and Red Bank -- giving residents the opportunity to experience Fi-Speed Internet, Fi Phone and Fi TV.

"We are very pleased to introduce our community to the incredible power of our 100% fiber optics network, the only one in this area," says Katie Espeseth, EPB Fiber Optics vice president. "Because of this technology, customers will have access to a whole new experience. Fi TV picture quality is spectacular with all the channels you

expect, Fi-Speed Internet is way faster than cable, and Fi Phone delivers clear, reliable service. And this is just the beginning -- the power of the 100% fiber optic network allows for virtually unlimited options for new services in the future."

In January, EPB introduced Fi-Speed Internet 100 to its product set, one of the only residential 100 Mbps Internet offers in the country.

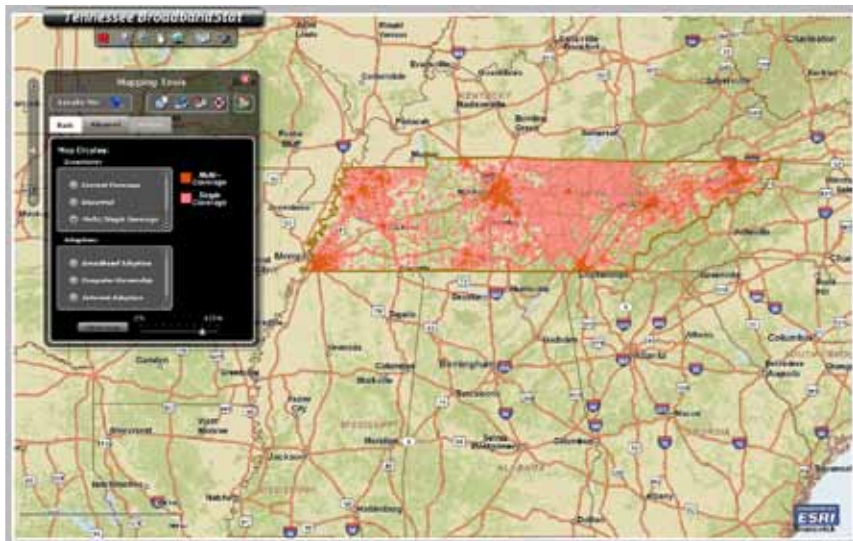
"This is just the beginning," continues Espeseth. "Now we are working on more options for our customers, more products and applications that will continue to get

better and better. Our network is 100% fiber optics, which means virtually unlimited opportunities for the future."

EPB is continuing to build its 100% fiber-optics network, ensuring service will be available to every home in Chattanooga, East Ridge, and Red Bank by July 2010.

EPB customers can view EPB Fiber Optics entire residential product set and check to see if services are available at their home by visiting www.epbfi.com or by calling 423-648-1EPB (1372). ★

Related links:
www.epbfi.com



Identify broadband service options.

Visualize broadband coverage areas.

Show types and speeds of existing coverage.

Analyze barriers to broadband adoption.

Evaluate the impact of proposed broadband projects.

Track broadband growth.

BroadbandStat: The Next Generation of Broadband Mapping Has Arrived

BroadbandStat is a new interactive mapping platform that provides a multi-functional, user-friendly way for local leaders, policymakers, consumers, and technology providers to devise a plan for the expansion and adoption of broadband.

For more information and to view the interactive BroadbandState site, visit www.connectedtn.org.



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Timeline of Growth: Monster Broadband Leads the Charge in Rural Middle Tennessee

Monster Broadband is a local wireless provider that is working to bring high-speed Internet services to Lynchburg and the surrounding counties, targeting communities that do not yet have DSL or cable modem services. Since its launch in July 2009, it has lived up to its name -- bringing broadband to the masses in areas that previously had no access. Monster's co-owner, Steve Baker, shares a timeline of its impressive progress over the past seven months:

- ✦ In July 2009 Monster successfully turned up its first network / tower in Moore County.
- ✦ By September, Monster had three towers in the Moore County area, servicing approximately 65 customers.
- ✦ By October, Monster had its first tower located outside of Moore County, covering the rural areas of Coffee County.
- ✦ By November, Monster had over 100 customers on its network, adding 22-28 customers per month, expecting to break the 200 customer mark by March.
- ✦ By the end of December, Monster expanded its networks into Bedford County turning up two towers serving the Bell Buckle community.
- ✦ In January, Monster signed a lease agreement with the town of Huntland in Franklin County with services starting February 17th.
- ✦ In January, Monster also signed a lease agreement to build a tower in Decherd located in Franklin County. The tower is currently under construction.
- ✦ February 1st, Monster announced its voice program called MonsterVoice. MonsterVoice offers unlimited local and long distance phone service in North America and Canada.
- ✦ Given the signed lease agreements already in place, Monster will be turning up six new towers within the next four and a half months expanding its services into Winchester, Manchester, Shelbyville, and Fayetteville.