

MAY/JUNE 2019

VERSALIF

# CONNECTION BROADBAND: JOBS EDITION THE FUTURE

Fiber brings the world to rural Tennessee

### A CULTURAL EXPERIENCE

Music and food on tap for this year's Valley Fest

### CARDIAC CONNECTION State-of-the-art

rehab possible with broadband



BY SHIRLEY BLOOMFIELD, CEO NTCA-The Rural Broadband Association

### Broadband drives rural and urban jobs

With this issue's focus on the impact of broadband on jobs, I was reminded of a report our Foundation for Rural Service and the Hudson Institute released three years ago. Entitled "The Economic Impact of Rural Broadband," this report estimated the direct and indirect economic effects of the rural broadband industry on gross domestic product.

The report showed that rural broadband companies like yours contributed \$24.1 billion to the economies of the states in which they operated. Even more interesting is the fact that \$17.2 billion of that total was through their own operations. The rest, \$6.9 billion, was through the follow-on impact of their operations. Those are impressive numbers under any financial index.

Sixty-six percent, or \$16 billion, of that total economic impact actually flows to urban areas. That means the U.S. jobs market needs rural broadband to remain strong and healthy.

The impact of rural broadband goes far beyond the service areas of rural telcos. The study showed that the rural broadband industry supported 69,600 jobs in 2015 — and I'm sure those numbers are even higher today. These jobs not only come from broadband providers themselves, but also from companies that supply goods and services to the industry. And more than half of those jobs, 54 percent in fact, are actually in urban America.

The truth is in the numbers. Rural broadband creates jobs and helps drive our economy — in rural and urban America alike.



# TRACED Act would help stop unwanted, illegal calls

Your phone rings. Even though you're in the middle of dinner, you answer because the Caller ID information shows the call is coming from a local number. Maybe it's someone you know.

"Congratulations!" the recorded voice exclaims. "You have been selected to receive a free cruise."

You just answered one of the estimated 130 million automated calls placed every day.

While there are legitimate uses of autodialing, illegal robocalls have become a plague that impacts everyone with a phone. Lawmakers have worked on the issue for almost three decades. Yet despite laws and fines designed to stop the practice, criminals — armed with ever-advancing software and technology — continue to find ways to flood our nation's phone network with unwanted calls.

Earlier this year, Sen. John Thune, R-S.D., and Sen. Ed Markey, D-Mass., introduced the TRACED Act, short for Telephone Robocall Abuse Criminal Enforcement and Deterrence Act. It gives the FCC and other agencies more power in enforcing existing laws governing robocalls.

"Unwanted robocalls that utilize spoofed phone numbers or falsify information are a problem in urban and rural America alike," says Shirley Bloomfield, CEO of NTCA–The Rural Broadband Association. She says the TRACED Act "seeks to tackle this problem while also recognizing the transitions necessary to implement new technologies and network connections that will help achieve this goal."

In March, the attorneys general of all 50 states, plus four territories, signed a letter in unanimous support of the TRACED Act, sending it to the Senate Commerce, Science, and Transportation Committee. A group of 10 U.S. senators representing several states and both political parties later issued a press release pledging their support for the bill as co-sponsors.

"With bipartisan support growing, the time to pass legislation to stop the scourge of robocalls has come," said senators Markey and Thune in that press release. "The groundswell of support for our TRACED Act — from state and territory attorneys general, to FCC and FTC commissioners, to leading consumer groups, to major industry stakeholders — shows just how much the American people want Congress to act to stop harassing robocalls."

As of press time, the bill remained in committee. Before becoming law, it would require support by both houses of Congress and the president.

# **HEY** TELEMARKETERS:



# **DO NOT CALL!**

The Federal Trade Commission and the Federal Communications Commission established a National Do Not Call Registry. Joining this registry can drastically reduce the number of telemarketing calls you receive.

### JUST THE FACTS ABOUT DO NOT CALL:

- Once you've registered, telemarketers have 31 days to stop calling your number.
- Register as many as three nonbusiness telephone numbers. You can also register cellphone numbers there is not a separate registry for cellphones.
- Your number will remain on the list permanently unless you disconnect the number or you choose to remove it.
- Some businesses are exempt from the Do Not Call Registry and may still be able to call your number. These include

political organizations, charities, telephone surveyors and businesses with whom you have an existing relationship.

Strict Federal Trade Commission rules make it illegal for telemarketers to do any of the following, regardless of whether or not your number is listed on the National Do Not Call Registry:

- Call before 8 a.m.
- Call after 9 p.m.
- · Misrepresent what is being offered
- Threaten, intimidate or harass you
- Call again after you've asked them not to

### IT'S EASY! Add your number to the Do Not Call Registry

Register online at www.donotcall.gov or call 888-382-1222. For TTY, call 866-290-4236.

You must call from the telephone number you wish to register.

### ATTENTION LOCAL BUSINESS OWNERS:

### MAKE SURE YOU FOLLOW THE DO NOT CALL RULES

No matter if you're a one-person shop or a beloved company, local business owners should remember that National Do Not Call Registry rules and regulations apply to you. After all, you don't want to upset a loyal customer, or frustrate potential new customers, with unwanted phone calls.

If you are a company, individual or organization that places telemarketing calls, it is very important that you familiarize yourself with the operations of the National Do Not Call Registry. Unless you fall under one of the established exceptions, such as telemarketing by charitable organizations or for prior business relationships, you may not make telemarketing calls to numbers included in the National Do Not Call Registry.

For information regarding National Do Not Call regulations, visit the National Do Not Call Registry at www.telemarketing.donotcall. gov. You can find the Federal Communications Commission and Federal Trade Commission rules governing telemarketing and telephone solicitation at 47 C.F.R. § 64.1200 and 16 C.F.R. Part 310, respectively.

### **OFFICIAL NOTIFICATION:**

The Do Not Call initiative, regulated by the Federal Trade Commission and the Federal Communications Commission, requires telephone service providers to notify customers of the National Do Not Call rules and regulations.

# **Introducing your Connection magazine**

ledsoe Telephone is investing in our community, and this spring we have something fresh to share. We are pleased to introduce the new Connection magazine.



**CHARLIE BORING** General Manager

Bledsoe Telephone Cooperative is deeply committed to the people of the Sequatchie Valley. In order to share the stories of those communities and our role within them, we've upgraded our member newsletter — it's now bigger and better than before.

We've set a goal of improving our communication with members and customers, keeping you informed and educated about new industry trends, community activities and news from your cooperative. This new magazine format is helping us achieve that goal and will be sent out six times a year. Bledsoe Telephone Cooperative is growing, and the industry we represent is evolving quickly, so it's more important than ever to keep you informed.

Through these pages we will update you on network upgrades, share information about our services, and shine a spotlight on local people and organizations who are using technology to create something special. You'll also find helpful tips, industry news and interesting feature stories from across the region in these pages.

As a member-owned cooperative, Bledsoe Telephone is always trying to make cost-effective decisions. In the case of this magazine, we've partnered with 20 other rural telcos in Tennessee and five other states to produce this magazine in a way that makes it affordable to each company. We really hope you enjoy the new Connection.

And we have so much good news to share. We've invested millions of dollars already in a fiber optic network throughout our territory, with plans to grow even more this year. We're also working on new offerings and improved services every day.

Bledsoe Telephone is committed to these investments in our region of Tennessee. We know building this network and making upgrades to our services are good investments because our community is counting on us to pave the way for the future. We're working diligently to equip our cooperative for whatever demands our members may have in the years to come — and doing so as quickly as our resources allow.

We know that with technology, change is really the one thing we can count on. Times are changing, and so are we. No longer are we just a telephone company; we are your fullservice communications provider. Thank you for placing your trust in us, and for allowing us to earn your business. 💭

# INECT

Connection is a bimonthly newsletter published by Bledsoe Telephone Cooperative, ©2019. It is distributed without charge to all customers of the company.



is a member-owned cooperative dedicated to delivering advanced telecommunications technology to the people of Bledsoe and Sequatchie counties and portions of Van Buren, Cumberland and Hamilton counties.

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#### **BOARD OF DIRECTORS**

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Produced for Bledsoe by:



#### On the Cover:



Bledsoe Telephone Cooperative is expanding a fiber network throughout the service area. Here, employee Josh Burgess checks on a terminal on Main Street in Pikeville. See story Page 12.



### **EMPLOYEES REACHING MILESTONES IN 2019**

Bledsoe Telephone Cooperative recognized nine employees for their years of service. From left are Russ Camp, 25 years; Jeff Moffit, 20 years; Kathy Roberson, 20 years; Bryan Myers, 25 years; Steve Grant, 25 years; Matthew Boynton, five years; Brian Bridges, 25 years; Dwayne DeBord, 35 years; and Charlie Boring, 25 years.

### Bledsoe Telephone awarded grant to build fiber

BTC Communications was awarded \$701,120 through the Tennessee Broadband Accessibility Grant program to build a fiber network in the Walden's Ridge community of Rhea County. The co-op will match the grant for a total investment of more than \$1.4 million.

"This was a highly competitive grant process, and we are thrilled to have been chosen from among the many companies that applied," says Charlie Boring, general manager at Bledsoe Telephone and BTC Communications. "This grant will help us deliver broadband to an area of the state that desperately needs access."

When completed, the network will make high-speed broadband internet access available to 488 homes. "Broadband has become a vital lifeline to our rural communities in Tennessee, including those in Rhea County," says state Sen. Ken Yager, whose district includes the area approved for the grant. "I'm pleased to see the governor's grant program leveraging state dollars with investment and expertise from Bledsoe Telephone to make sure residents don't get left behind."



In memory **OF CODY RAULST** 

Bledsoe Telephone Cooperative mourns the loss of Cody Raulston, who

passed away in March. He worked in the Outside Plant department as a cable install and repair technician. He had been with BTC for three years.

"Cody was a dedicated employee, and everybody loved him," says General Manager Charlie Boring. "He will be missed."

## BTC AWARDS THREE Scholarships to High School Seniors

Bledsoe Telephone Cooperative awarded three \$1,000 scholarships to area high school seniors who plan to enroll in college this fall.

Students competed by writing an essay about rural broadband and its impact on the future. The co-op usually awards one senior at each local high school. However, after a tie at Bledsoe County High School, Jillian Faith Nale and Morgan Campbell both received scholarships.



Faith Nale, from Pikeville, plans to attend Chattanooga State Community College and pursue a degree

in dental hygiene. She is the daughter of John David Nale and Jill Nale.



Morgan Campbell, from Graysville, plans to attend Tennessee Technological University

and pursue a degree in secondary education with a focus on humanities. She is the daughter of Anthony D. Campbell and Christina Campbell.



Amanda Hicks received the scholarship at Sequatchie County High School. Hicks, from Dunlap,

plans to attend Chattanooga State Community College and pursue a degree in psychology and criminal justice. She is the daughter of Charles Joey Hicks and Karen Hicks.

# Geagoing majesty Visit the centers working to protect sea turtles

BY ANNE BRALY

S ea turtles are some of the most majestic, longlived animals in the ocean. However, hundreds of thousands of them die each year after being tangled in fishing nets and other man-made gear. They also suffer as a result of climate change, lack of food, contaminated seas and other hazards.

They're among the most imperiled groups of animals that swim our seas, says Dr. David Steen, a research ecologist at the Georgia Sea Turtle Center in Jekyll Island, Georgia. If the baby turtles can make it to adulthood — which is an accomplishment in itself, as most perish before they reach that critical stage — they can live for decades and reproduce many times.

"This offsets the high mortality they experience in early life," Steen says. "But the big problem arises when adults experience higher death rates than normal. It's tough for populations to recover."

The Georgia Sea Turtle Center is one of several such centers located in coastal states around the South. It opened in 2007 and has educated hundreds of thousands of visitors on the hazards sea turtles face, as well as the important role they play in our ecosystem.





The center is a one-of-a-kind experience, Steen says. Visitors can learn about sea turtles in an interactive learning center, peer into a hospital window to see turtles being treated by a veterinarian, and stroll through a pavilion to view turtles as they are rehabilitated in tanks. And during the nesting season, which runs from May to July, visitors can join educators and researchers on night searches for nesting sea turtles.

Educating the public about the importance of sea turtle recovery is a focus of the center's mission.

"If your ecosystem has missing pieces, there will inevitably be cascading effects, many of which we can't even predict," Steen adds. "There are many philosophical, ecological and spiritual reasons one might consider when discussing why we need to save sea turtles, but there are legal reasons, too. All sea turtles are protected by the Endangered Species Act, and that means we must work to recover their populations."

The effort appears to be working, as the number of loggerhead sea turtle nests in Georgia is gradually increasing, Steen says. "Their numbers are increasing due to a variety of individuals, agencies and organizations in the region, and also because of the state and federal legislation like the Endangered Species Act that protects them."

### See more sea turtles

### **IN SOUTH CAROLINA:**

Zucker Family Sea Turtle Recovery at the South Carolina Aquarium 100 Aquarium Wharf, Charleston, S.C.

### Online: scaquarium.org

Zucker Family Sea Turtle Recovery allows guests who visit the South Carolina Aquarium to experience and learn about sea turtles. It's both a hospital and a guest experience, making the real-life rehabilitation of sick and injured sea turtles visible to all guests through windows into the surgical suite. Experience a turtle's remarkable journey from rescue to rehabilitation and release.

To date, the South Carolina Aquarium has returned 265 rehabilitated sea turtles to the ocean.

### **IN FLORIDA:**

### Navarre Beach Sea Turtle Conservation Center 8740 Gulf Blvd., Navarre, Fla.

### Online: navarrebeachseaturtles.org

The Navarre Beach Sea Turtle Conservation Center is a small operation with a giant mission to educate the public and protect the beautiful turtles that call the Gulf of Mexico home and nest on its white-sand beaches. Visitors to the center can see Sweet Pea, a green sea turtle that cannot be returned to the wild due to her injuries. Also, guests can take a virtual "journey" through Northwest Florida to learn about the region's natural resources and the importance of protecting coastal and marine ecosystems critical to sea turtle survival.

### **IN NORTH CAROLINA:**

### Karen Beasley Sea Turtle Rescue and Rehabilitation Center 302 Tortuga Lane, Surf City, N.C.

### Online: www.seaturtlehospital.org

Hundreds of loggerheads, leatherbacks, ridleys and green sea turtles come to the beaches of North Carolina to lay eggs before returning to the Atlantic Ocean, leaving thousands of hatchlings to potentially emerge and follow their instincts toward the sea.

Visitors to the Topsail Beach area can visit the Karen Beasley Sea Turtle Rescue and Rehabilitation Center to learn about turtles' lives from beach nest to the sea and the center's effort to improve their odds of survival.

The center offers tours to the public during the warm months, beginning in April.

Sea turtles are also visible at all three North Carolina aquariums, which are involved in rescue, rehabilitation and release.

- The Aquarium on Roanoke Island on the Outer Banks features a Sea Turtle Rescue exhibit.
- Visitors to the Aquarium at Pine Knoll Shores on the Crystal Coast can follow the journey of loggerhead sea turtles in the Loggerhead Odyssey exhibit.
- In the Wilmington area, The Aquarium at Fort Fisher features turtle exhibits and Turtle Talks at the adjacent Fort Fisher State Recreational Area.

# Setting standards

# Omni Rehab providing therapy services

### **BY LISA SAVAGE**

hen a patient needs cardiac rehabilitation, the service is available locally at Omni Rehab because of a direct connection with Erlanger Medical Center in Chattanooga.

Bledsoe Telephone Cooperative's fast fiber optic internet network makes the connection possible, and patients no longer have to drive to Chattanooga for this type of service, says Travis Smith, founder of Omni Rehab. "We're the only provider in the area who does cardiac rehab," he says.

During cardiac rehab, the patient must be connected to telemetry, an automated system used to measure and record data related to the heart that requires technicians at Erlanger to monitor the activity.

"The technology that allows this service is state-of-the-art, and that's impressive that it's available in a rural area like Pikeville and Dunlap," Smith says.

### **STILL GOING STRONG**

Omni Rehab opened in 2001, starting out at the athletic club at the golf course in Dunlap. They eventually built their own building at the industrial park in Dunlap. The company has a contract with Erlanger to provide physical therapy at Erlanger Bledsoe Hospital in Pikeville. The company also has plans to open a third location in Rhea County in May.

Omni Rehab provides physical and occupational therapy as well as cardiac and pulmonary rehab. The company has grown to more than 25 employees. With a recent upgrade to the fiber-based network, increasing the speed and reliability of internet service, all operations have run much more smoothly, Smith says.



The clinic uses the internet for electronic medical records, insurance verifications and approvals, payroll, and other communications. The high-speed internet helps ensure the facilities operate as efficiently as possible.

"We've had exceptional service since we switched to fiber," Smith says. "It gives us the tools we need to be better and more efficient at our jobs. We take a lot of pride in what we do and try to spend oneon-one time with our patients, and that sets us apart."

### **SERVING THE COMMUNITY**

Smith recently received the Pikeville-Bledsoe County Chamber of Commerce's Community Spirit award for having a positive impact through his generosity and passion for the community.

Smith and his business partner, Tommy Haupert, volunteer their time and talents for the Bledsoe County and Sequatchie County high schools' athletic teams, meeting with all the players before the games to provide pregame evaluations, taping, wrapping, bracing and safe play instruction.

They provide emergency care of sports injuries and conditions on the field and on the sidelines throughout the games. They are on call for all county sporting events. Smith also has coached recreation-league soccer.

Smith's newest project, Omni Outreach, provides care for disabled children in the community. "We want to exceed expectations in everything we do," Smith says. "When it comes to technology, Bledsoe Telephone Cooperative has helped us to do that."

**VISIT OMNI REHAB** 

**ON FACEBOOK** 

Valley Fest has something for everybody Entertainment highlights six days of festivities

#### **BY LISA SAVAGE**

hether it's singing along to the Georgia Satellites' hit "Keep Your Hands to Yourself" or enjoying food from different cultures, there's something for everybody at Valley Fest, this area's premiere outdoor music and cultural festival.

The festival is coming up in Dunlap, but it's for everybody and every community in the area, says Cody McCarver, who co-chairs the festival with Janis Kyser, executive director of the Sequatchie County-Dunlap Chamber of Commerce. "That's one of the reasons we call it Valley Fest," McCarver says. "Even though it's in Dunlap, it's for all of the Sequatchie Valley. We don't want to exclude any town or any community. It's for everybody."

And for anyone who can't make it to the festival, the entertainment will be broad-

cast on Bledsoe Telephone Cooperative's Valley TV Channel 18. The co-op also will provide free Wi-Fi on the festival grounds.

McCarver, a Dunlap native, loves his community, and he loves music, so it's only natural he has been involved since the festival's beginning. McCarver was a member of Confederate Railroad for 12 years and has helped line up musicians for the event, landing big-name entertainers like Exile, T. Graham Brown, Restless Heart and the Marshall Tucker Band.

The festival started on an April weekend in 2011. With unpredictable weather, the festival committee moved it to the first weekend in May several years ago.

Music begins on May 3, but the festivities kick off on April 30 with a carnival. Food and craft vendors for the festival will set up at the new location at 287 Pine St., in the field behind where the festival has always been. With the designation as a cultural festival, vendors provide a variety of foods, and many different genres of music are on tap.

This year, the Georgia Satellites will headline festivities on May 4, along with Buddy Jewell and others. Faith Day on May 5 will feature gospel favorite Guy Penrod. Although the entertainers for Saturday's events are known for Southern rock and country, the festival's music is diverse, representing all genres and cultures.

Local kids who are students at Music Makers will perform on May 3 in a segment known as Jill's Kids beginning at 3:30 p.m. Events on Saturday kick off at 9 a.m. with a walk, 5K run and 10K run through the Sequatchie Valley, followed by a car show. Music begins after opening ceremonies at 2 p.m. Gates open at 11 a.m. on Sunday.

There's an art exhibition, shopping and other activities, as well as inflatables, rides and face painting for kids.

Wristbands for all six days are \$12 per person. Reserved seating is available for \$25 per person. Sponsors, including BTC, help keep ticket prices affordable. "The event is geared to families," McCarver says. "By keeping ticket prices low, families can come out and enjoy the event."



For a complete list of entertainment, activities or to purchase tickets, visit www.valleyfestonline.com.



# Bringing Economic HOPE Broadband networks recharge rural communities

#### BY JEN CALHOUN

hen Bud Layne engineered a new design for conveyor belts back in 1989, the internet was hardly a thought in most people's minds. Relatively few had heard of it, and even fewer used it. So, as technical as his Glasgow, Kentucky-based company may have been, internet access didn't matter.

"But all that's changed. Today, the Span Tech CEO and founder depends on high-speed internet from his local rural telecommunications cooperative to send engineering design files across the world in the time it takes to sip coffee.

Without that kind of access, Layne couldn't sell his conveyor belts to multinational food producers like Kraft. He also couldn't employ between 80 and 90 people in a town of less than 15,000. "Every design layout we do has to be redone, on average, five times," he says. "All this stuff moves back and forth digitally over our network. These are some big drawings I'm talking about."

Rural-based companies like Span Tech are still an exception, however. The U.S. Census Bureau's 2016 American Community Survey found that only 17 percent of businesses operate in rural communities, defined as nonurban towns of fewer than 50,000 residents and sparsely populated



regions. The number of companies working in rural areas, however, could increase if high-speed internet networks continue to appear in all regions of the country.

#### **GOING COUNTRY**

Entrepreneurs are taking note of rural success stories, according to a June 25, 2018, story from the business website Fundera.com. Survey data from the 12 Federal Reserve Banks found that rural communities outperform urban centers on many metrics of successful entrepreneurship.

"Rural businesses are smaller and grow

more slowly, the data from the Small Business Credit Survey shows," the article says. "But they're also more likely to be profitable than their urban counterparts and have longer survival rates. Plus, entrepreneurs in rural areas have an easier time getting business financing, which is an important factor in scaling a business."

Small and large companies have either popped up in rural regions across the country or, like Span Tech, stayed put thanks to expanded digital access. One example is Above All Aerial in rural Minnesota. The company uses drone technology to help farmers across the country scout crops and provide damage assessment. Another is Big Tex Trailers, based in Mount Pleasant, Texas. With a workforce of about 2,000, it serves clients throughout the United States and as far north as Western Canada. Also, a U.S. Army veteran turned his love of pop culture into his business, Tennessee Toys and Comics, in a town of about 5,000 people. Now, he sells to collectors around the world.

#### **THE HIGH COST OF DIGITAL DARKNESS**

If high-speed internet access fails to expand in rural areas, however, jobs and the economy can't grow, says Wally Tyner, an agricultural economics professor at Purdue University. Tyner is one of the authors of a detailed 2018 policy brief that shows the economic benefits gained from installing broadband networks in rural areas of Indiana. Through intensive research, Tyner's team found that the economic benefits outweighed the costs of fiber networks at a ratio of 4:1.

"I always like to ask my audience this question when I'm presenting this policy brief: 'Is there anybody in this room who thinks rural electrification was a bad idea?" Tyner says, referring to the Rural Electrification Act of 1936 that offered low-cost government loans to rural electric cooperatives so people outside of the nation's cities could have access to safe, reliable and affordable electricity. The answer, Tyner says, is always no. "I don't care how conservative or how liberal you are. No one will say it was a bad idea, even though it's the government getting involved," he says.

Without the initiative, large areas of the country — as well as millions of people — could have gone without electricity for decades, leaving them literally and figuratively in the dark as their city-dwelling counterparts progressed without them.

So what does this have to do with highspeed internet access? Everything, says Tyner, who headed a detailed 2018 policy brief that shows the economic benefits gained from installing broadband networks in rural areas of Indiana.

The Purdue brief found that if rural communities can access the type of broadband networks available in larger cities, there will be more jobs, more industry, better education, more medical opportunities and a host of other benefits.

And while installation of this kind of fiber optic equipment is expensive, the result is that the fiber networks end up paying for themselves many times over. "Today, the economy runs on digits," Tyner says. "If you're on the other side of the digital divide, you're up that creek without a paddle. It's really important for rural areas to have."

# Digital dollars

It's no secret that almost every business and government entity relies on high-speed internet. Farms, manufacturing firms, schools and cottage industries depend on the internet for everything from relaying and retrieving information to marketing and sales. But high-speed internet also brings money to local, state and federal economies. The Hudson Institute, a research organization, released a report in 2016 called "The Economic Impact of Rural Broadband." The report found that rural broadband providers across the country directly added \$24.1 billion to the states in which they operated in 2015 alone. Of this, \$17.2 billion was through their own operations and \$6.9 billion was through the follow-on impact of their operations, the report says.

### ECONOMIC EFFECTS OF THE RURAL BROADBAND INDUSTRY BY STATE IN 2015

Alabama DIRECT IMPACT \$241 million INDIRECT IMPACT \$87 million TOTAL IMPACT \$328 million

EMPLOYMENT 1,014 jobs

### Kentucky

DIRECT IMPACT \$312 million INDIRECT IMPACT \$102 million TOTAL IMPACT \$414 million EMPLOYMENT 1,239 jobs

### **South Carolina**

DIRECT IMPACT \$618 million INDIRECT IMPACT \$230 million

TOTAL IMPACT \$848 million

EMPLOYMENT 2,725 jobs

### Tennessee

DIRECT IMPACT \$532 million INDIRECT IMPACT \$247 million

**TOTAL IMPACT** \$779 million

EMPLOYMENT 2,606 jobs

 $\rightarrow$  Source: The Hudson Institute's "The Economic Impact of Rural Broadband," 2016.

# **A FIBER CONNECTION**

BTC employee Josh Burgess works on a line on Main Street in downtown Pikeville.

### Making our communities a better place to live, work and play

**BY LISA SAVAGE** 

Standefer

andace Bartley helps students plan their college curriculum as part of her job as a program mentor at Western Governors University in Utah. For her, commuting to work means taking a few steps from her kitchen to her home office in rural Sequatchie County near Dunlap.

The broadband internet service through Bledsoe Telephone Cooperative makes the connection between Bartley and the students possible. "Without a substantial internet connection, I couldn't do my job," Bartley says. She recently upgraded to fiber as part of BTC's ongoing fiber network expansion.

Bartley has worked for the online university for four years, and her internet connection was slower before the upgrade to fiber. In addition to phone calls and emails with students, she relies on a virtual meeting room that requires high-speed internet. "Sometimes, I just couldn't stay connected, and I'd lose the connection with the student," she says.

After BTC upgraded her service to the faster, fiber optic network, the problems are gone. "I've seen a huge difference in my ability to do my job," she says. Bartley is part of a growing number of residents benefiting from BTC's upgrade to a fiber optic internet network.

### THE COOPERATIVE'S BACKBONE

BTC provides phone and internet service to about 10,000 access lines in all of Bledsoe and Sequatchie counties, as well as portions of Van Buren, Cumberland and Hamilton counties.

BTC, established in 1953 to provide phone service, began in the late 1990s to create a fiber optic network for providing internet service throughout the 804-squaremile service area, says Matthew Boynton, engineering manager at BTC. At that time, the only transmission option was through copper wire, the system used for years to provide phone service. By 2014 every cooperative member could access a 10 Mbps internet connection. "We're proud that we had 100 percent coverage of all the service area, and no portion was considered unserved for broadband and phone services," Boynton says.

As technology changed, the company knew it could provide improved service through a fiber optic network, which is faster and more reliable than copper-based systems.

With much of the technology infrastructure in place, BTC now has the foundation necessary to eventually provide a fiber optic connection to every home. "That previous backbone gives us a solid base to expand the fiber network," Boynton says. "We're going back across every location, to every address of our members, to make available gigabit internet service. We're working hard to get fiber to every home and business."

### **COMMUNITY IMPACT**

The network can support economic development, education, health care, government services, public safety and even tourism. For example, BTC's fiber network benefits Bledsoe County's geocaching program launching this year.



Matthew Boynton, BTC engineering manager, checks on a connection in the Tip Top community.

Geocaching is an outdoor activity in which participants use a GPS system and other navigational techniques to find hidden treasures at specific locations. It's a growing trend used to attract tourists.

A geocaching app helps access information about popular regional locations on the geocaching tour, but in some of Bledsoe County's rural areas, mobile internet service is sketchy. With BTC's fiber network, Wi-Fi established at geocaching locations improves players' phone and app performance. "Bledsoe Telephone's role to help make sure all our sites have internet access is a tremendous help," says Jenni Veal, tourism coordinator of the Southeastern Tennessee Tourism Association.

Many businesses also depend on broadband to operate, and fiber availability is expected to attract even more economic opportunities.



"It's very important for all our businesses to have access to broadband," says Dunlap Mayor Dwain Land. "It makes it a lot easier to market our area to businesses interested in locating here."

Land says broadband not only helps attract businesses, but it also makes a difference in the quality of life. "It's one of the first questions someone asks when they're considering locating in our area," he says. "A good-quality broadband internet is becoming a requirement for businesses and families. It's no longer a luxury. It's a necessity, and it's certainly making a difference in our community now, and it will make a big difference in the future."

#### **COST OF FIBER**

Installation of a typical mile of fiber in a neighborhood can cost more than \$30,000.

"That's quite an investment," Boynton says. "But it will mean that our members have access to some of the best services available."

BTC's fiber network is complete within Pikeville and Dunlap. "Anyone living in those towns has fiber and can access highspeed internet," Boynton says.

A fiber-to-the-home network is now available across 20 percent of the service area, making it available to one-third of the population, Boynton says. "Most of our focus has been on the most populated areas," Boynton says. As the cooperative continues to expand, the challenges become greater because of the terrain and distance between homes.

"It's a primarily rural and mountainous area," Boynton says. "It's our goal to have every member connected to fiber by 2025."

### FACTS ABOUT FIBER

- A fiber optic network can truly revolutionize access to faster, more reliable internet service.
- Fiber uses tiny strands of plastic or glass, just slightly thicker than a single human hair.
- Fiber installation is expensive, but maintenance costs are cheaper than copper-based systems. Fiber is more durable, is easier to maintain and requires less hardware.
- Fiber optic networks offer faster speeds than traditional copper-based networks, which are less reliable because they are more easily affected by temperature fluctuation, severe weather conditions and moisture.
- Gigabit-speed internet allows access to reliable, secure internet services used for home security, homework, online classes, working from home, gaming or streaming videos.

# the beautiful simplicity of hummus

### A few basic ingredients create a healthy favorite

I ummus is proof that the best things in life are often simple. "I make mine with garbanzo beans, lemon, salt, tahini and some olive oil. That's it," says Solomon Babylon, owner of Babylon Gyros in Richmond, Kentucky. "It's really the tahini sesame paste — that makes it."

Since opening his restaurant 10 years ago in the charming home of Eastern Kentucky University just a few miles south of Lexington, Babylon has seen a marked increase in the amount of hummus he prepares daily. He serves it as a dip with whole rounds of grilled pita bread or as a garnish for falafel.

"It's interesting," he says. "In the 1980s, it was Chinese food. In the '90s, it was Mexican. In the early 2000s, it was Indian food. There were Indian restaurants everywhere. But now, in the 2010s, people have started turning to Middle Eastern food."

Hummus includes lots of good nutrients, such as calcium, folate, fiber, healthy fats and magnesium. When it comes to goodfor-you ingredients and foods to make our lives better, hummus is a tasty option. "You go into any grocery store and see hummus all over the place," says Babylon, a native of Jordan.

At the eatery in downtown Richmond, though, hummus is made from scratch. The restaurant goes through about 50 pounds of dried garbanzo beans every week, and Babylon makes hummus three to four times daily, Monday through Saturday. "I make it batch by batch, every two to three hours," he says.

Though his restaurant serves traditional hummus only, Babylon says there are a number of ingredients you can add to it. "One of the best I've ever had is avocado hummus," he says. "But there's eggplant hummus and others. You can add spinach



to it, red peppers. But remember, you can't be stingy with the tahini. Tahini makes the hummus. Taste as you go."

And, he advises, if the recipe calls for it, be sure to add enough lemon. You want a slightly sharp edge to your hummus.

"And you know what's one of the best tastes you'll ever have?" he asks. "Hummus topped with rice. Hummus is a base for anything you might want to put on it. That's why I serve hummus with whole pieces of pita. That way, people can tear off a piece of pita, spread some hummus on it and add some gyro meat or shawarma (roasted meat cooked on a spit and shaved) and make a sandwich."



FOOD EDITOR ANNE P. BRALY IS A NATIVE OF CHATTANOOGA, TENNESSEE.

### **TRADITIONAL HUMMUS**

- 3 cups dry garbanzo beans, soaked overnight
- 1/2 cup olive oil
- 3/4 cup tahini paste, or more, to taste
- 1/4 cup fresh lemon juice, or more, to taste Salt, to taste
- 1 tablespoon extra virgin olive oil, for drizzling

Rinse the beans and place in a pot. Fill with enough water to cover by at least 1 inch. Allow to sit overnight. Drain beans. Then add water to cover by at least an inch. Bring to a boil; then reduce heat and simmer over medium heat until the beans are very soft, 1 to 2 hours.

Drain the beans, reserving some of the water to use later. Transfer the beans to a blender and blend the beans until smooth, adding 1/2 cup of olive oil gradually. Add some of the reserved water if needed to help it blend. Add the tahini and blend in along with the lemon juice. Add salt. Taste and correct seasonings, adding more tahini, lemon and salt, as needed.

Spread the hummus into a flat serving dish and garnish with a drizzle of olive oil. Serve with pita bread, pita chips, carrots, celery, cucumbers or a combination of any or all of them.

### **AVOCADO HUMMUS**

When in a pinch, Solomon Babylon uses canned garbanzo beans, but he recommends using the best you can find, preferably beans from Turkey.

- 1 (15-ounce) can garbanzo beans, well-rinsed and drained
- 3 tablespoons extra-virgin olive oil
- 11/2 tablespoons tahini, or more, to taste
  - 3 tablespoons fresh lime juice



Salt and freshly ground black pepper, to taste

- 1/8 teaspoon cumin
  - 2 medium, ripe avocados, cored and peeled
    - Red pepper flakes, for garnish

In a blender or food processor, pulse garbanzo beans, olive oil, tahini and lime juice until smooth, about 2 minutes. Season with salt and pepper, to taste. Add cumin and avocados and pulse mixture until smooth and creamy, 1-2 minutes longer.

Serve topped with more olive oil and sprinkle with red pepper flakes, if desired. Serve with pita or tortilla chips.

### **RED BEET HUMMUS**

- 2 pounds red beets, scrubbed (about 2 large beets)
- 2 garlic cloves, chopped
- 2 tablespoons ground coriander
- 1 tablespoon fresh lemon juice
- 1/2 cup extra-virgin olive oil
- 1/2-1 cup tahini, or to taste Kosher salt

Heat the oven to 425 degrees. In an ovenproof Dutch oven, cover the beets with water and bring to a boil on the stovetop. Then keep covered and braise in the oven for about 2 hours, until very tender. Use a knife or fork to test for tenderness. With a slotted spoon, transfer the beets to a cutting board. When cool enough to handle, slip off the skins and cut the beets into small, 1-inch pieces, spread them on a baking sheet and refrigerate until cold, about 1 hour.

In a food processor, combine the braised beets with the garlic, coriander and lemon juice and pulse until finely chopped. With the food processor on, slowly drizzle in the olive oil until incorporated and the beet puree is smooth. Scrape into a bowl and whisk in the tahini. Season with salt and serve with pita bread or pita chips.



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