

EXECUTIVE SUMMARY  
**Technology Plan**

Knox County, Texas

February 2022



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# OVERVIEW *01*

**T**oday, technology plays a pivotal role in how businesses operate, how institutions provide services, and where consumers choose to live, work, and play. A community’s success has become dependent on how broadly and deeply it adopts technology resources, which include access to reliable, high-speed networks; the digital literacy of residents; and the use of online resources for local business, government, and leisure.

As such, the Knox County Broadband Committee partnered with the Connected Nation Texas (CN Texas) Connected Community Engagement Program to conduct a study designed to determine the availability of broadband infrastructure; how county residents are adopting and using broadband services; and what action steps would have the greatest impact toward improving broadband access, adoption, and usage across every local sector.

Pursuant of this goal, between September and November 2021, Knox County conducted a comprehensive survey of broadband technology access and adoption across the community that collected responses from 111 households. CN Texas staff also met with community officials to determine community needs and gather qualitative data for consideration in the study.

This study approached broadband holistically, focusing on the quality of life offered when residents and community leaders alike access, adopt, and use broadband in a productive and meaningful capacity. With this approach, the assessment identified issues and action opportunities necessary to close the local Digital Divide.

Data collected as part of the engagement played an integral role in developing a unique, locally informed action plan for Knox County. This document provides a summary of that assessment, as well as recommendations for improving broadband and technology access, adoption, and usage. Additionally, CN Texas created an interactive map. To access that map, please click [here](#).

<b>KNOX COUNTY, TEXAS</b>	
<b>QUICK FACTS</b>	
Population	<b>3,353</b>
Households	<b>1,375</b>
Median Household Income	<b>\$48,798</b>
Poverty Rate	<b>15%</b>
Adults with a Bachelor’s Degree or Higher	<b>20.1%</b>
Hispanic or Latino	<b>33.7%</b>
Households with Broadband Access <sup>1</sup>	<b>99.99%</b>

Source: <https://data.census.gov/cedsci/profile?q=05000000US48275>  
<sup>1</sup>The current FCC definition of broadband is a minimum of 25 Mbps download and 3 Mbps upload. These data are derived from Connected Nation Texas and last updated in January 2022. <https://connectednation.org/texas/planning/>



**87%** of households in Knox County report subscribing to fixed internet service

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*For households that do not subscribe to home internet service, the top barriers are a **lack of computer ownership** and the **cost of internet service**.*

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*Only **68.3%** of households in Knox County have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Statewide, **93.55%** of households have internet access at this speed.*

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*More than one-half of employed survey respondents in Knox County (**56%**) report teleworking in some capacity. Of those, **30%** telework every day, and an additional **17%** telework several days per week.*

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*About **46% of households and 68.8% of businesses** reported that they were dissatisfied with their current internet service. The top reasons for dissatisfaction were slow speeds, high prices, and unreliable connections.*

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*Nearly 9 out of 10 households (**88.5%**) said they would like to have improved or additional options for home internet service.*



INFRASTRUCTURE  
RESULTS *02*

According to CN Texas broadband data initially released in January 2022, followed by additional public feedback, field validation, and provider input: virtually all (99.99%) of Knox County households have access to broadband of at least 25/3 Mbps, the current definition of broadband set forth by the Federal Communications Commission (FCC). Broadband service in Knox County is distributed throughout the county.

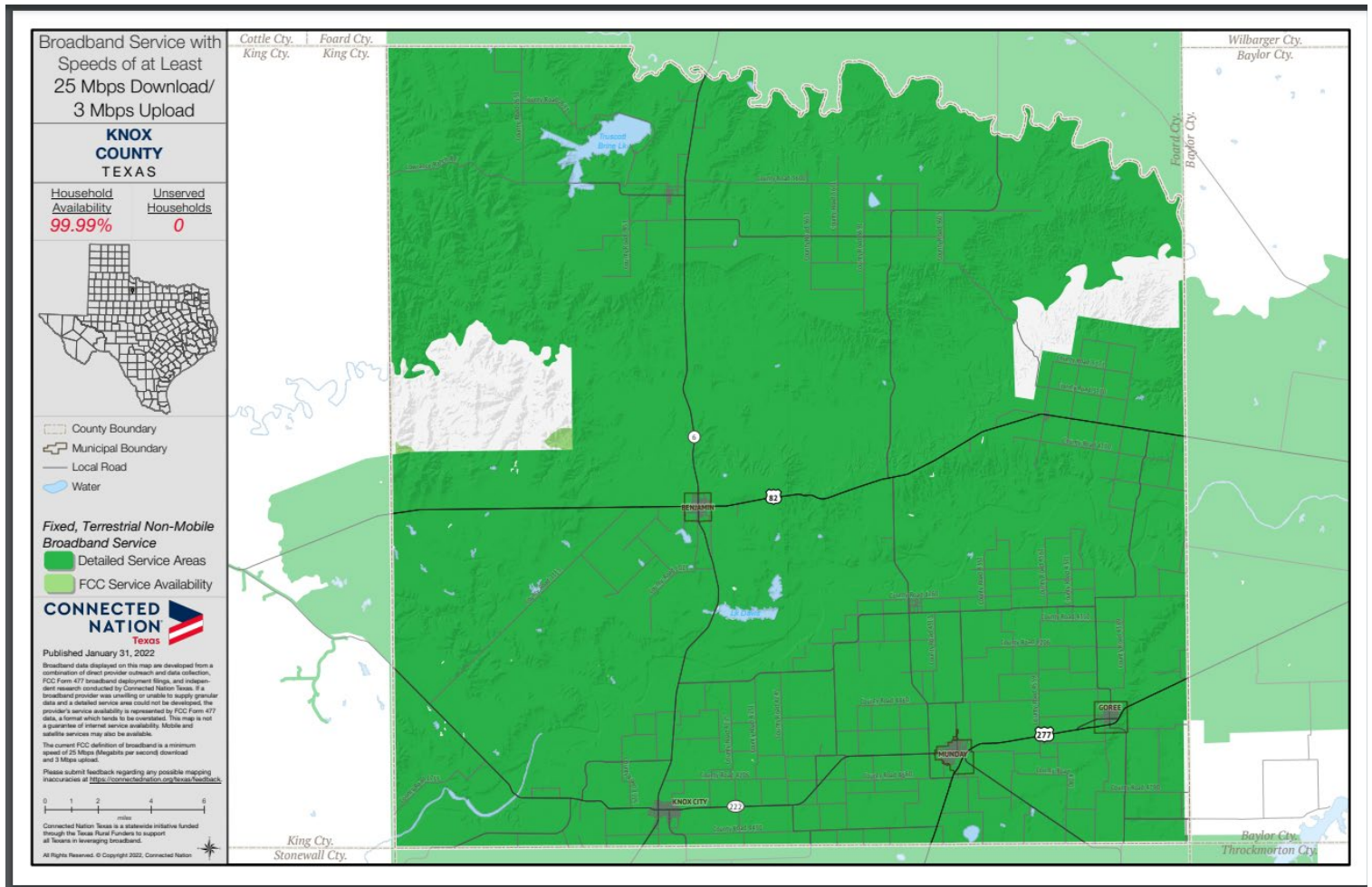
Below is the list of internet service providers (ISPs) in Knox County.

BROADBAND INFRASTRUCTURE QUICK FACTS	
Unserved Households (25/3 Mbps)	<b>0</b>
Households Served (10/1 Mbps)	<b>99.99%</b>
Households Served (25/3 Mbps)	<b>99.99%</b>
Households Served (50/5 Mbps)	<b>99.99%</b>
Households Served (100/10 Mbps)	<b>68.30%</b>

PROVIDER	TECHNOLOGY	MAXIMUM DOWNLOAD SPEED (Mbps)	MAXIMUM UPLOAD SPEED (Mbps)
AMA TechTel Communications	Fixed Wireless	50	3
Mid-Plains Communications	Fiber	200	100
Santa Rosa Telephone Cooperative Inc.	Fiber	1000	100
	DSL	50	10
TGM Pinnacle Network Solutions	Fixed Wireless	50	5
Valor Telecommunications of Texas LP	DSL	200	200

# INFRASTRUCTURE: Knox County

Below is Knox County's (25/3 Mbps) map. To access the full map, go to <https://connectednation.org/texas/county-maps/> and select Knox County from the list. Portions of the county are served by internet service providers (ISPs) offering slower advertised speeds, and those areas are not shown on this map.



Broadband data published by CN Texas in 2022: <https://connectednation.org/texas/mapping-analysis/>

The first step in understanding the status of broadband infrastructure in Knox County and statewide is having accurate maps. Accordingly, CN Texas works with providers to develop a variety of broadband maps at the state and county level. Data shown on this map are derived from a combination of direct provider outreach and data collection, FCC Form 477 broadband deployment filings, and independent research conducted by CN Texas. If a provider was unable or unwilling to supply granular data and a detailed service area could not be developed, the provider's service is represented by Form 477 data alone, a format that tends to overstate the service territory.

To access the map as a PDF, click [here](#).





HOUSEHOLD  
SURVEY RESULTS  
*03*

**KNOX COUNTY SURVEY  
QUICK FACTS**

Fixed Home Broadband Adoption  
**87%**

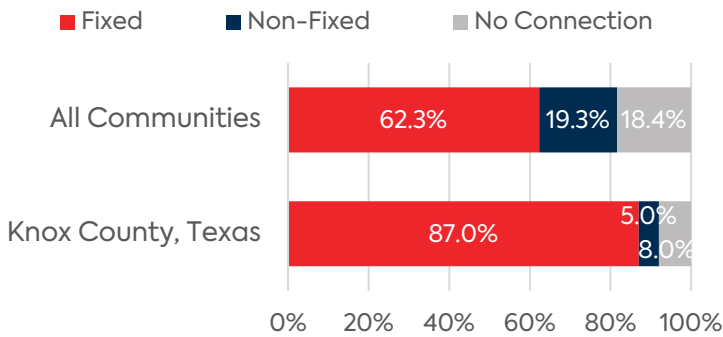
Average Monthly Internet Cost  
**\$70.65**

Average Download Speed  
**28.14 Mbps**

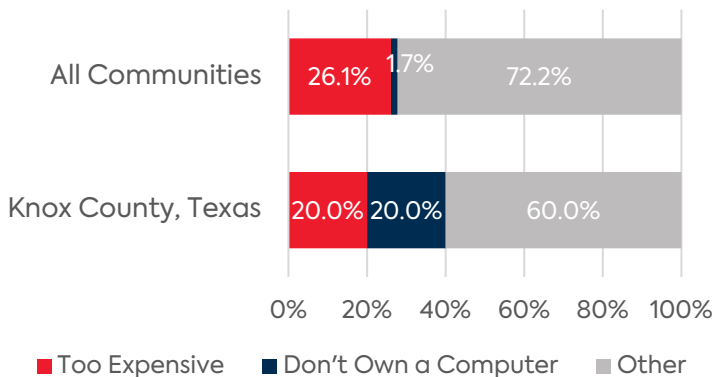
Households Satisfied with Service  
**54%**

The following section provides an overview of results from a broadband survey conducted in Knox County between September and November 2021. Altogether, CN Texas received 111 completed surveys from households across the county; respondents provided insights into their internet connectivity or lack thereof. Data from Knox County are compared to data from hundreds of other rural Connected Communities that participated in the program across Michigan, Ohio, Texas, and Pennsylvania to benchmark and identify areas for improvement.

**Home Broadband Adoption**



**Primary Barrier**



**ADOPTION**

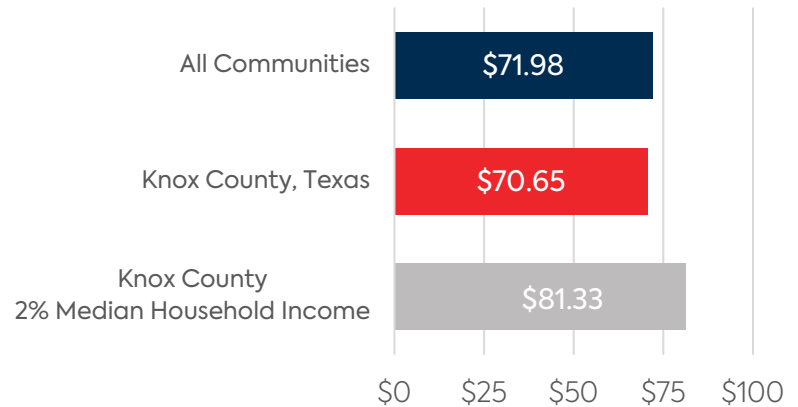
In Knox County, 87% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology, while 5% indicate they have internet service delivered via dial-up, satellite, or a mobile wireless service. This leaves 8% of survey respondents without internet access at home.

Among those without a home internet connection, 20% said they did not have broadband because it was too expensive. An additional 20% say they don't own a computer. Like many other communities, cost is a primary barrier to home broadband adoption.

## CONNECTION DETAILS

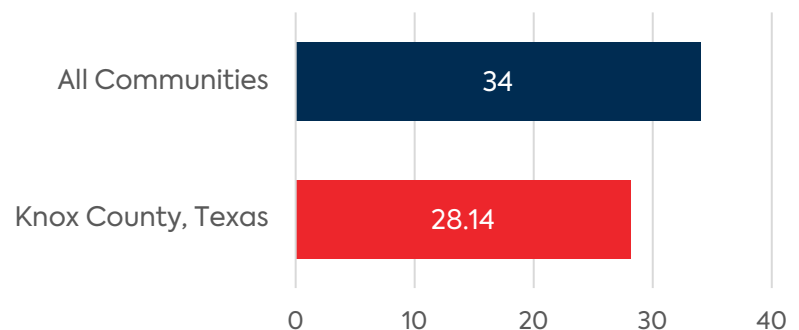
Two percent of monthly income is a recognized standard for measuring the affordability of a home internet connection. Respondents indicate that, on average, their internet connection costs about \$70.65 per month. This is slightly lower than the monthly cost paid in other communities (\$71.98). Two percent of the median household income in Knox County is \$81.33 per month.

### Average Monthly Cost

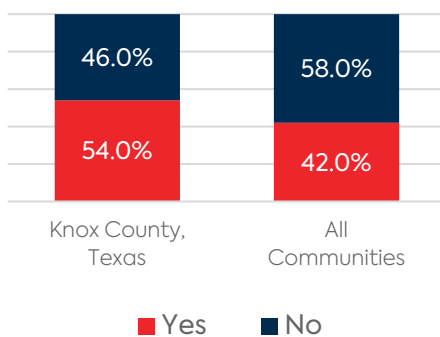


The FCC currently defines broadband as an internet connection with a download speed of at least 25 Mbps and upload speed of at least 3 Mbps. On average, respondents indicate that their connection's download speed is 28.14 Mbps, which is just above the minimum defined speed.

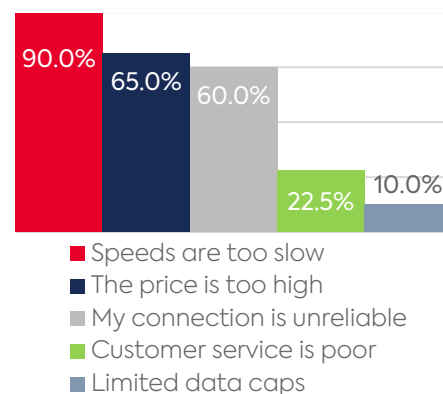
### Average Speeds (Mbps)



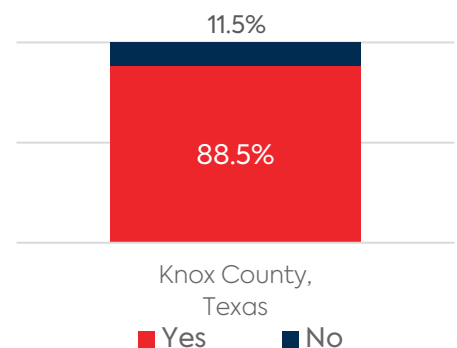
### Does Your Internet Meet Your Needs?



### Why Doesn't Your Internet Meet Your Needs?



### Are You Interested in More Choices at Home?



# HOUSEHOLD SURVEY RESULTS: Knox County

Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. Almost one-half (46%) of responding households indicate that their internet connection does not meet their needs. This is a lower rate of dissatisfaction than among households in other communities (58%).

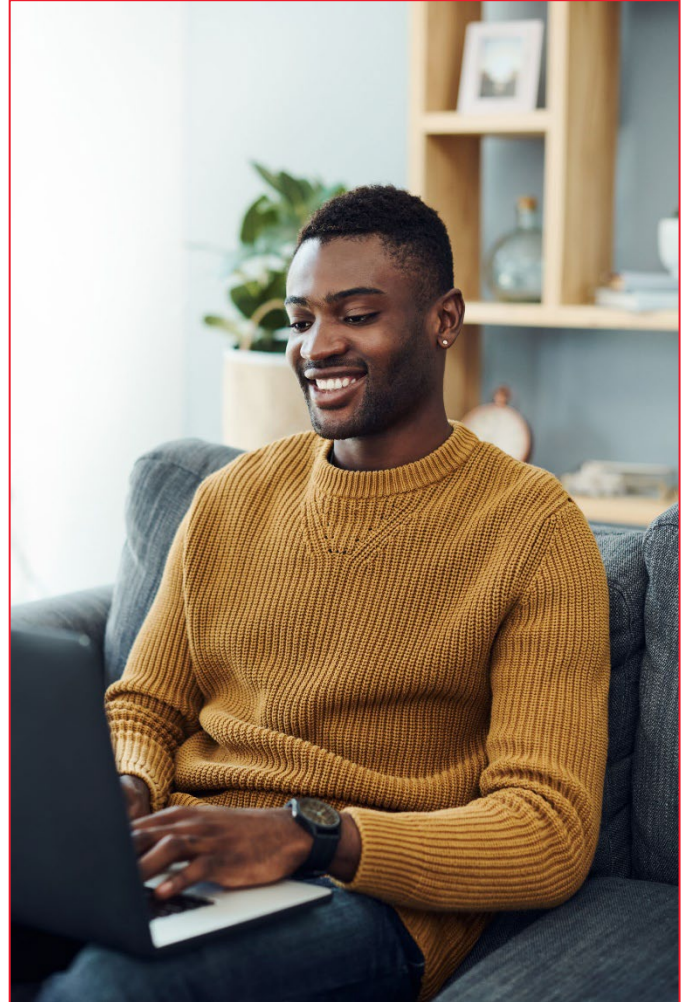
When asked why their connection does not meet their needs, 90% of dissatisfied households indicate that their speed is too slow; 65% say the price is too high, and 6 out of 10 (60%) indicate that the connection is unreliable. Respondents could choose more than one reason for dissatisfaction.

Finally, 88.5% of all respondents indicate that they are interested in additional internet choices for their home.

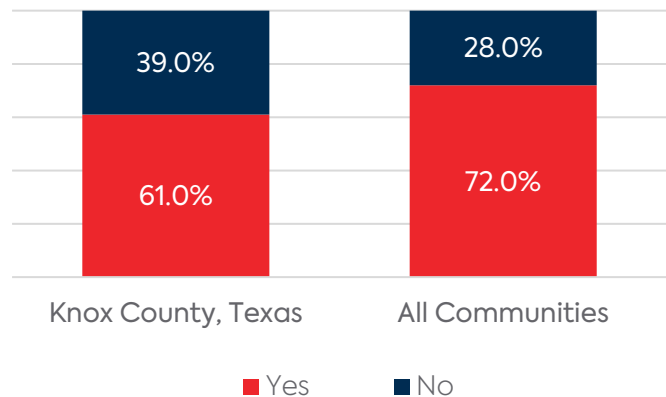
## MOBILE CONNECTIVITY

Three out of 5 (61%) of households reported that they subscribe to mobile internet service, which they access via a smartphone or similar mobile device. This is 11 percentage points lower than what is reported in other Connected Communities (72.0%).

Additionally, 22.3% of mobile-connected households report that they either rely on those mobile connections as their primary source of home internet connectivity or use mobile service to connect other household devices to the internet.



Households Subscribing to Mobile Internet Service



# HOUSEHOLD SURVEY RESULTS: Knox County

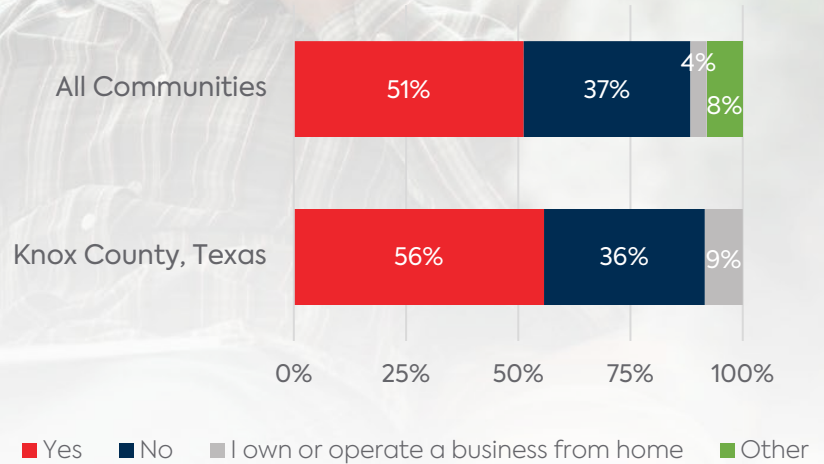
## TELEWORK

Teleworking, or telecommuting, refers to working outside of the conventional workplace by way of telecommunications or computer-based technology. The COVID-19 pandemic forced many organizations to allow their staff to telework.

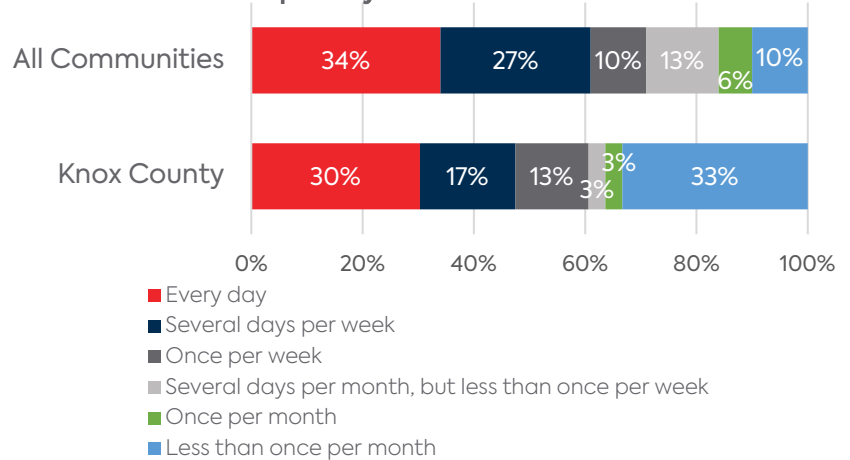
Teleworking is quickly becoming a critical part of growing a local economy because it represents an opportunity to attract and retain employees even when employees are not located in the same community as their employers. However, this only works if those employees have access to advanced broadband infrastructure.

Approximately 56% of employed respondents in Knox County telework in some capacity. Three out of 10 (30% of this group) telework every day.

### Do You Currently Telework?



### How Frequently Do You Telework?





# RECOMMENDATIONS

# 04

The following recommendations are presented to assist Knox County in expanding broadband access and adoption throughout the community.

## **Goal 1: Implement strategies that ensure broadband needs are being met in Knox County for residents and local organizations.**

Between September and November 2021, Knox County partnered with Connected Nation Texas to better understand the community's broadband landscape. Survey results reveal two important themes: first, internet access is available in Knox County and second, residents want faster broadband speeds.

According to Connected Nation maps published in January 2022, 99.99% of homes in Knox County have broadband availability at the 25/3 Mbps threshold. Furthermore, according to survey results, 87% of residents subscribe to fixed broadband service, which includes the likes of cable, DSL, fiber, or fixed wireless technology. The average download speed reported by survey respondents in the residential sector is 28.14 Mbps. This speed would support about three to five devices at any given time. This standard is not sustainable in an increasingly digital society, especially in multi-person homes. Couple this with the fact that 56% of employed survey respondents indicated they telework in some capacity. Teleworkers cannot be successful or competitive in their job fields without reliable and fast internet connections. Beyond telework, it is important to recognize how slow internet speeds negatively impact and deter digital engagement.

As such, it's no surprise that survey respondents in six of the nine community sectors said the leading reason for dissatisfaction with current internet service was, "speeds are too slow." Slow internet speeds are not only frustrating but can be very limiting. While the current federal definition of broadband is 25/3 Mbps, many funding programs are now requiring ISPs to provide speeds of at least 100/20 Mbps to qualify for funding. This higher threshold provides for more connected devices at a single time and greater digital opportunities.

In Knox County, residents have access to the internet, and by and large they are subscribing, but the task now becomes encouraging providers to deliver speeds that meet the everyday needs and wants of residents, businesses, farmers, educators, and others with a reliable connection and an affordable plan.

### **Objective:**

Leverage community assets and partnerships to increase broadband speeds in Knox County through infrastructure development and improvement projects.

## Actions:

**Action 1 – Meet with local broadband providers to form and foster working relationships.** The first step to increasing broadband speeds across Knox County is meeting with local broadband providers. Community leaders should assess the status and viability of ongoing or upcoming infrastructure improvement and expansion projects. It will be important to know and understand where new or improved infrastructure is being built around the county, and how it will affect broadband speeds and delivery to residents. Knox County should maintain close, working relationships with each provider. As new grant programs and projects are announced or local needs arise, it will be crucial for the county to have a dedicated and informed point of contact with each provider who can assist as necessary.

According to CN Texas January 2022 data, the following providers offer service in Knox County:

- AMA TechTel Communications
- Mid-Plains Communications
- Santa Rosa Telco.
- TGM Pinnacle Network Solutions
- Valor Telecommunication (Windstream)

**Action 1A – Assess project needs and resources.** During meetings with providers, the community should discuss how to become a project partner, whether financial or strategic in nature. For example, how could Knox County speed up the local permitting process or provide county lands/infrastructure as a means of furthering an ongoing broadband project or starting a new one altogether? Ultimately, Knox County should play a strategic role in ongoing or planned projects that will widely benefit the most residents.

Knox County has been allocated \$711,689 in Coronavirus State and Local Fiscal Recovery Funds. On January 6, 2022, the U.S. Treasury Department issued its final rule expanding the use of funds for broadband. Should Knox County choose to spend any of these federal funds on broadband, it is important that county officials are prepared, informed, and readily equipped to begin working with reliable partners.

**Action 2 – Provide survey data to all local providers.** When meeting with providers, community leaders should address the survey results, highlighting the need for faster service at an affordable price. It is important for providers to understand the consumer base in Knox County to provide the best customer service experience. Almost one-half of households with a broadband subscription (46%) report being dissatisfied with their service, citing slow speeds and high prices as the leading reasons for dissatisfaction. Armed with this information, broadband providers can strategically address their service areas and improve access throughout the county.

**Action 3 – Pursue state and federal funding for broadband advancement.** In November 2021, the landmark Infrastructure Bill became law, promising \$65 billion for broadband advancements and



improvements. This includes funds for infrastructure deployment and adoption, middle-mile infrastructure, and digital equity efforts. The National Telecommunications and Information Administration (NTIA) will be handling much of the broadband funding that comes out of the Infrastructure Bill. In the meantime, there are other funding sources that promise opportunities for broadband, such as the U.S. Economic Development Association or U.S. Department of Agriculture. Funding guides have been linked in the resource section. Capitalizing on this once-in-a-generation funding opportunity will be paramount to ensuring Knox County residents have faster, more reliable broadband for years to come.

### Responsible Parties:

Local units of government; broadband providers; community and regional organizations

### Timeline:

Knox County leaders should begin meeting with broadband providers within three months of receiving this plan. Increasing broadband speeds will expand the number of opportunities for local residents, businesses, educators, and community leaders.

### Resources:

Treasury Issues Final Rule for State and Local Fiscal Recovery Funds Program to Support the Ongoing COVID Program

<https://home.treasury.gov/news/press-releases/jy0550>

Coronavirus State and Local Fiscal Recovery Funds

<https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds>

BroadbandUSA: Federal Funding Guide

<https://broadbandusa.ntia.doc.gov/resources/federal>

Texas Broadband Providers by County

<https://connectednation.org/texas/planning/>

Coronavirus State and Local Fiscal Recovery Funds, County Allocation

[https://home.treasury.gov/system/files/136/fiscalrecoveryfunds\\_countyfunding\\_2021.05.10-1a-508A.pdf](https://home.treasury.gov/system/files/136/fiscalrecoveryfunds_countyfunding_2021.05.10-1a-508A.pdf)

Guide to Federal Broadband Funding Opportunities in the U.S.

<https://www.internetsociety.org/resources/doc/2021/guide-to-broadband-funding-opportunities-in-us/>

Current Broadband Funding

<https://connectednation.org/current-broadband-funding>

## Goal 2: Utilize free and reduced-cost broadband services to ensure all residents have equitable access to the internet.

Broadband adoption is when a resident, business, or community institution recognizes the value in broadband (high-speed internet), subscribes to the service and embraces related digital technologies. Adoption is critical for increasing the community's digital capacity and empowering residents and community leaders. To adopt broadband, a person needs access to the internet, a digital device, and requisite digital skills to navigate the online world and related technology devices.

According to survey results, nearly 1 in 10 residents reported not subscribing to broadband. One in 5 households (20%) who do not subscribe to broadband said it was because broadband was too expensive, and another 20% said it was because they did not own a computer. Arguably, lack of a computer is just another expression of the affordability gap, but in the form of device acquisition. The cost barrier can be further explained by the county's poverty rate. According to U.S. Census data, 15% of residents live in poverty — higher than the state average of 13.6%. Therefore, it is imperative for project plans to reflect programs that can help overcome barriers to adoption — specifically those related to affordability. No resident should be left offline due to financial constraints when state, federal, and nonprofit efforts are available to bridge the affordability gap.

## Objective:

Increase broadband adoption and usage rates among Knox County residents through low-cost connectivity solutions.

## Actions:

**Action 1 – Promote programs that help residents overcome the affordability barrier to broadband adoption.** The county should work with community leaders and institutions to publicly promote programs and opportunities designed to reduce the cost of broadband service. This can be done by advertising in the local newspaper, providing updates in monthly school newsletters, posting flyers in public buildings throughout the county, and publicly discussing at commissioners' court and city hall meetings.

Below are some programs and resources that are available to residents.

- **Resource to locate affordable internet service or computers:** Using online resources, Knox County residents can identify local and national providers who offer special low-cost services for vulnerable populations, older adults, and low-income families with children. Resources include EveryoneOn (<https://www.everyoneon.org/>)
  - EveryoneOn helps residents locate low-cost internet services and affordable computers by ZIP code and by need, based on their participation in assistance programs.
- **State and federal low-cost programs:** There are three critical programs that offer discounts for broadband to eligible households:
  - **State Lifeline Program:** A government assistance program run by the Public Utility Commission of Texas that provides a discount to qualifying low-income customers who subscribe to voice telephone service or broadband internet access service. The Lifeline discount for qualifying low-income customers may be up to \$12.75 depending on the services provided and customer eligibility. Lifeline service is non-transferrable and is limited to one discount per household. More information can be found on the Public Utility Commission of Texas' [website](#).

- **Federal Lifeline Program:** Lifeline is also available at the federal level to help qualifying low-income consumers access phone and internet service. Additional information about the program can be found on the Federal Communications Commission (FCC) [website](#).
- **The Affordable Connectivity Program:** Once known as the Emergency Broadband Benefit, the Affordable Connectivity Program was made permanent with the passage of the Infrastructure Investment and Jobs Act (commonly referred to as the Infrastructure Bill). The program provides a \$30 per month discount for broadband with participating providers. For more information, visit the FCC's [webpage](#).

Consider the following institutions and leaders to help promote these programs:

- School Districts: Benjamin ISD, Knox City–O'Brien CISD, Munday CISD
- Local and county government:
  - Munday, Knox City, and Goree City Councils
  - Knox County
- Local media, such as the Knox County News–Courier
- Other: Munday City–County Library, Lions Club, food pantries, churches, etc.

**Action 2 – Ensure that Knox County residents have access to affordable internet-enabled devices that meet their needs.** One in 5 households that do not have a home internet connection (20%) cited not owning a computer as a barrier to adoption. Therefore, this issue coupled with a higher-than-average poverty rate in Knox County means there is a need to make affordable devices available in the county. There are two ways to achieve this: 1. Promote programs that provide access to low-cost devices such as [PCs for People](#) or [HumanIT](#), and; 2. The county and/or the cities should create a program where departments and businesses could donate surplus computing devices for refurbishment and distribution or sale in high-need communities.

**Action 3 – Create a free, public-computing center at the local library.** To ensure all residents have access to the internet, Knox County should increase the number of publicly available computers in frequently accessed locations. The obvious selection for a public-computing center is the Munday City–County Library. While the Knox County library did not participate in the Connected Nation survey, it remains a critical anchor institution in the effort to bridge the Digital Divide. Libraries are integral to community development for many reasons, most notably because they offer free community resources and aid. In the case of Knox County, the community library should serve as an internet safe space for residents who cannot connect to the internet at their own homes for one reason or another. Enhancing the role of the library within Knox County can increase residents' usage of the internet and related technology resources. Beyond the library, other frequently accessed locations such as schools, government buildings, local businesses, and churches may consider serving as public-computing hubs.

**Action 3A – Utilize community partnerships, resources, and funding programs to purchase or update resources.** The county can use grant funds to acquire new devices or partner with community

organizations and internet service providers to outfit buildings with computing devices.

### Responsible Parties:

Local units of government and elected officials; broadband providers; community and regional organizations and institutions: businesses, schools, libraries; community residents

### Timeline:

Disseminating information about free and reduced-cost broadband services should begin immediately to ensure anyone who wants access can get it. For residents who cannot access the internet at home, public computers are the next option for accessing the digital world. In order to meet the needs of these residents, Knox County should increase the number of free, public computing stations by fall 2022.

### Resources:

Affordable Connectivity Program  
<https://connectednation.org/acprogram/>

Universal Service Administrative Co.: Lifeline  
<https://www.lifelinesupport.org/#>

Free Wi-Fi Hotspot Locator Apps  
<https://www.lifewire.com/free-online-wifi-hotspot-locators-818276>

Texas Broadband Providers by County  
<https://connectednation.org/texas/planning/>

Human I-T  
<https://www.human-i-t.org/>

PCs for People  
<https://www.pcsforpeople.org/>

5 Reasons Why Libraries are Essential to Have  
<https://princh.com/blog-5-reasons-why-libraries-are-essential-to-have/#.Ybt0tb3MKUI>

Current Broadband Funding  
<https://connectednation.org/current-broadband-funding>

BroadbandUSA: Federal Funding Guide  
<https://broadbandusa.ntia.doc.gov/resources/federal>

How to Create a Public Computer Center  
<https://www.newamerica.org/oti/blog/how-to-create-a-public-computer-center/>

Northland Public Library  
<https://www.northlandlibrary.org/computer-center/>

First-Ever National Study: Millions of People Rely on Library Computers for Employment, Health, and Education (Bill and Melinda Gates Foundation)  
<https://www.gatesfoundation.org/ideas/media-center/press-releases/2010/03/millions-of-people-rely-on-library-computers-for-employment-health-and-education>

## Goal 3: Promote greater digital engagement in Knox County through digital literacy campaigns.

Broadband connects people to the world and opens the door to opportunity. Where there is broadband, there is development, achievement, and innovation. In rural Texas, broadband looks like economic development, greater scholastic achievement, advancement in agriculture and farming,

connection to telehealth services, infrastructure improvement, and general technological advancements. In Knox County, it is important to embrace broadband for how it can both contribute to and improve the current way of life.

Survey results reveal that digital engagement in Knox County is primarily limited to email, text, Facebook, and television. (Digital engagement, for the purposes of this document, is defined as the various methods used for communication, interaction, and entertainment by residents and community anchor institutions.) For example, 82% of businesses report using email daily, while 70% report never using Twitter. More than 2 out of 5 businesses (41%) said they do not have a website, a critical tool for marketing services, products and expanding sales. Digital engagement is a critical piece of personal, professional, economic, and community development. Knox County should seek solutions and community programs that encourage greater digital involvement across all sectors.

## Objective:

Highlight the quality of life offered by broadband through a digital literacy campaign and corresponding outreach and community workshops.

## Actions:

**Action 1 – Identify community advocates in five community sectors who can lead digital engagement initiatives.** Knox County leaders should identify key advocates in each of the following areas to educate the general community about the short- and long-term benefits of broadband adoption and use. Industry leaders can speak to the importance of broadband in their line of work, as well as discuss the myriad uses. The more residents, businesses, and community institutions understand the positive benefits of broadband, the greater the likelihood of adoption and use.

- Economy → Knox County Commissioners Court, West Central Texas COG, Workforce Solutions
- Telehealth → Knox County Hospital District
- Agriculture → Knox County Texas Agrilife Office
- Education → Benjamin ISD, Knox City-O'Brien CISD, Munday CISD
- Public Safety → Knox County Sheriff's Department, Knox City Police Department, Volunteer Fire Department (Munday, Goree, Benjamin)

## Economy

Highlight economic and practical advantages of telework: According to survey results, 56% of employed survey respondents telework. Of that group, 30% work remotely every day, with an additional 17% teleworking multiple days per week. By teleworking, an employee can reside in Knox County but be employed by an entity in Dallas, Houston, Lubbock, or another state entirely. Telework offers greater flexibility in work schedules and expands the number of job opportunities for rural Texans, while also increasing the number of potential applicants for employers. The keys to telework is adequate digital skills to engage online and a reliable internet connection.

Promote e-commerce as the gateway to the global economy: As businesses and community organizations expand their online presence, they expand their customer pool and ultimately increase profit. By utilizing websites and social media to market services and sell products, businesses can take part in a larger digital economy. Nearly 3 out of 5 businesses (59%) currently have websites, according to survey feedback.

## Telehealth

Showcase physical health and time-saving benefits of telehealth services: The future of medicine is online. For communities that lack large hospitals, general practitioners, surgical attendees, and medical specialists, telehealth is a natural substitute. Online medical services allow communities to speak with top-of-the-line doctors, dentists, surgeons, dermatologists, veterinarians and many other providers through the click of a button. These online services are not only important in times of emergency, but they allow residents flexibility when meeting with medical professionals. No longer do you have to take time off work to drive to the clinic, but rather use a phone or tablet to meet with you doctor from the comfort of your home or office. Survey results reveal that 100% of health care facilities in Knox County are subscribing to internet services.

It's important to note that telehealth includes teletherapy and related medical care. Telehealth is an important health care option not just for treating physical needs, but also addressing psychological needs. Telehealth does not have to fit inside a box and is not intended to be a substitute for rural, medical providers; if anything, telehealth is meant to enhance the services already offered by hard-working, conscientious, rural medical professionals.

## Agriculture

Showcase the intersection of the agriculture industry and broadband: Agriculture is the backbone of Texas (and the United States at large), but for field operations and ranches to remain profitable, sustainable, and manageable into the future, farmers and ranchers will need to adapt to the changing times. Innovations in farming technology range from automated equipment to livestock tracking, all of which are designed to increase profitability, meet changing demands, and allow operations to stay competitive. Ultimately, the future of American agriculture demands broadband, not only so producers can stay connected to the outside world but so local ag operations can run sustainable and successful businesses that contribute to local economies and global food sources.

## Public Safety

Promote importance of emergency preparedness in public safety sector (911, interoperable networks): With reliable broadband comes increased public safety capability for EMS, police, and fire departments. Not only can first responders communicate reliably with each other using mobile devices in the field, but they can communicate with other agencies at the local, state, and federal level. Sixty-seven percent of public safety respondents rated mobile broadband availability in the county as "fair/poor," the lowest of three rankings.

**Action 2 – Develop curriculum for free, community workshops.** Community leaders should partner with local and regional organizations to facilitate free digital literacy and digital skills workshops designed to increase digital engagement across the county. Workshop curriculum should be curated using material created by the county and publicly available programs, such as AARP and Digital Learn (resources linked below). Classes should be offered at local facilities, such as the school gym or the community center, and be advertised through the local media. The intention is for residents and community leaders to understand the importance of digital engagement and to feel comfortable using online platforms. The more the community engages online, the more residents will reap the benefits of a digital lifestyle.

Workshop topics can include:

- How to teleconference
- Cybersecurity 101
- Microsoft Office skills
- Intro to social media and website building
- Telehealth basics

**Action 2A – Provide varied formats for greater community involvement.** In addition to hosting in-person workshops, the general curriculum should be available for pickup at frequently accessed public locations in the form of paper handouts. Handouts function as a “grab and go” resource for residents to take with them to review later. In this way, everyone can benefit from the content in whatever way is most compatible with their schedule and preferred learning method.

**Action 2B – Produce English and Spanish materials.** It is important to consider that 34% of the Knox County population is Hispanic or Latino, and 22.6% of all households speak Spanish at home, according to the U.S. Census. Therefore, all materials pertaining to broadband workshops, affordability, and accessibility should be available in English and Spanish. Promotional materials about upcoming workshops classes should also be available in English and Spanish.

### **Responsible Parties:**

Community institutions: businesses, schools, libraries, organizations; local government leaders and elected officials; broadband providers; community residents

### **Timeline:**

Digital literacy and digital skills workshops should be available throughout Knox County by mid-2022. The community should routinely assess the curriculum to determine if updates are needed.

### **Resources:**

Texas Broadband Providers by County  
<https://connectednation.org/texas/planning/>

Improving the Quality of Life in Rural America with Broadband Internet  
<https://bonfire-ec.com/improving-the-quality-of-life-in-rural-america-with-broadband-internet/>

Implementing Productive Teleworking with Business-Quality Mobile Communications  
<https://tango-networks.com/wp-content/uploads/2021/01/Tango-Networks-Trend-Advisor-Productive-Teleworking-with-Mobile-Communications-v15May2020.pdf>

How Better Broadband Access Will Help Telemedicine Reach Its Full Potential  
<https://intouchhealth.com/how-broadband-will-help-telemedicine-reach-its-full-potential/>

The Benefit that Broadband Internet Offers for Ecommerce  
<https://www.newsanyway.com/2020/02/26/the-benefits-that-broadband-internet-offers-for-ecommerce/>

The complete guide to digital skills  
<https://www.futurelearn.com/info/blog/the-complete-guide-to-digital-skills>

AARP Joins with Nonprofit to Teach Tech to Older Adults  
<https://www.aarp.org/about-aarp/info-2021/oats-senior-planet.html>

Digital Learn: Use a computer to do almost anything!  
<https://www.digitallearn.org/>

Grow with Google  
<https://grow.google/>

GCFLearnFree.org® program  
[GCFLearnFree.org](https://www.gcflearnfree.org)

BOSS: Business Owners Sharing Solutions  
<https://wichitafallschamber.com/boss/>

Telehealth for behavioral health care  
<https://telehealth.hhs.gov/providers/telehealth-for-behavioral-health/>

Texas Department of Health and Human Services: Aging  
<https://www.hhs.texas.gov/services/aging>

New telehealth station launching in Milam County  
<https://www.kbtx.com/2020/07/07/new-telehealth-station-launching-in-milam-county/>

Telehealth station in Milam County first of its kind in Texas, bridging accessibility gap in rural areas  
<https://www.kxxv.com/brazos/telehealth-station-in-milam-county-first-of-its-kind-in-texas-bridging-accessibility-gap-in-rural-areas>

Pottsboro Library teaming with UNT medical school for telemedicine program  
<https://www.kxii.com/2020/12/23/pottsboro-library-teaming-with-unt-medical-school-for-telemedicine-program/>

Pottsboro Area Library: Check out telehealth at your local library!  
<https://pottsborolibrary.com/health/>

County starts free digital literacy program  
[https://www.leadertelegram.com/news/daily-updates/county-starts-free-digital-literacy-program/article\\_8f99afcc-a222-5445-8438-1a410a215a49.html](https://www.leadertelegram.com/news/daily-updates/county-starts-free-digital-literacy-program/article_8f99afcc-a222-5445-8438-1a410a215a49.html)

Getting Started with Telemedicine  
<https://connectednation.org/wp-content/uploads/2020/11/Getting-Started-with-Telemedicine.pdf>

Common Terms Associated with Telehealth and Telemedicine  
<https://connectednation.org/wp-content/uploads/2020/11/Common-Terms-Associated-with-Telehealth-and-Telemedicine.pdf>

5 Tips for Securing your Mobile Device for Telehealth  
[https://connectednation.org/wp-content/uploads/2020/11/Tips-for-Securing-your-Mobile\\_updated.pdf](https://connectednation.org/wp-content/uploads/2020/11/Tips-for-Securing-your-Mobile_updated.pdf)

Connecting Seniors in Central Texas  
<https://www.communitytechnetwork.org/blog/connecting-seniors-in-central-texas-with-senior-connect/>

The Future of American Farming  
<https://www.benton.org/publications/future-american-farming>



## **Goal 4: Identify opportunities for economic advancement in Knox County using broadband and related technologies.**

**Action 1** – Pursue grant(s) for advancement of local community development using broadband technologies (i.e., workforce development, telehealth, digital literacy, etc.). In conjunction with the countywide Connected Engagement program, Knox County has been allocated funding to pursue applicable grant opportunities. For specifics, please contact your Broadband Solutions Manager.