

EXECUTIVE SUMMARY  
**Technology Action Plan**

Clay County, Texas

March 2022



**TABLE OF CONTENTS**

<b>01 OVERVIEW</b> .....	2
<b>02 INFRASTRUCTURE</b> .....	6
<b>03 HOUSEHOLDS DETAILED FINDINGS</b> .....	9
<b>04 RECOMMENDED ACTIONS</b> .....	14



# 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 Clay County Broadband Committee partnered with 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 steps would have the greatest impact toward improving broadband access, adoption, and use across every local sector. Pursuant of this goal, between September and November 2021, Clay County collected responses from 462 households, 24 businesses, and four K-12 facilities, among other community sectors.

As part of the countywide engagement, CN Texas staff met with community officials to determine community needs and gather qualitative data for consideration in the study.

CLAY COUNTY, TEXAS QUICK FACTS	
Population	10,218
Households	4,105
Median Household Income	\$55,989
Poverty Rate	12.2%
Adults with a Bachelor's Degree or Higher	21.4%
Hispanic or Latino	6.3%
Households with Broadband Access <sup>1</sup>	99.6%

Source:

<https://data.census.gov/cedsci/profile?q=0500000US48077>

<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, January 2022.

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

# CLAY COUNTY OVERVIEW



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. Through 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 Clay County. The following provides a summary of that assessment, as well as recommendations for improving broadband and technology access, adoption, and usage.

CN Texas created an interactive map. To access the map, please click [here](#).





**86.6%** of households in Clay County report subscribing to some form of internet service

*For households that do not subscribe to home internet service, the top barrier is the **cost of internet service**, followed by **a lack of available service**.*

---

*Only **81.33%** of households in Clay 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.*

---

*Clay County households **pay less** on average for access to the internet (**\$70.08**) than other Connected communities (\$71.98).*

---

*About **34% of households and 70% of businesses** reported that they were dissatisfied with their current internet service. The top reasons for dissatisfaction were slow speeds and unreliable connections.*

---

*Four out of five households (**80%**) said they would like to have improved or additional options for home internet service.*



INFRASTRUCTURE  
RESULTS *02*

**A**ccording to CN Texas broadband data released in January 2022, followed by additional public feedback, field validation, and provider input, the majority (99.6%) of Clay 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 Clay County is distributed throughout the county, with the exception of areas along the northeast boundary with Oklahoma and east-central areas of the county.

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

## BROADBAND INFRASTRUCTURE QUICK FACTS

Unserved Households (25/3 Mbps)  
**17**

Households Served (10/1 Mbps)  
**99.61%**

Households Served (25/3 Mbps)  
**99.60%**

Households Served (50/5 Mbps)  
**99.51%**

Households Served (100/10 Mbps)  
**81.33%**

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

PROVIDER	TECHNOLOGY	MAXIMUM DOWNLOAD SPEED (Mbps)	MAXIMUM UPLOAD SPEED (Mbps)
AT&T Southwest	DSL	18	1
	Fixed Wireless	10	1
Charter	Cable	940	35
Comcell	Fiber	1000	1000
	Fixed Wireless	20	2
Nextlink	Fixed Wireless	100	20
North Texas	Fiber	1000	1000
Telephone	DSL	15	1
Rise Broadband	Fixed Wireless	25	5
Santa Rosa	Fiber	1000	100
Speed Of Light	Fixed Wireless	50	10
Texhoma Wireless	Fixed Wireless	15	5
TGM Pinnacle	Fixed Wireless	50	5



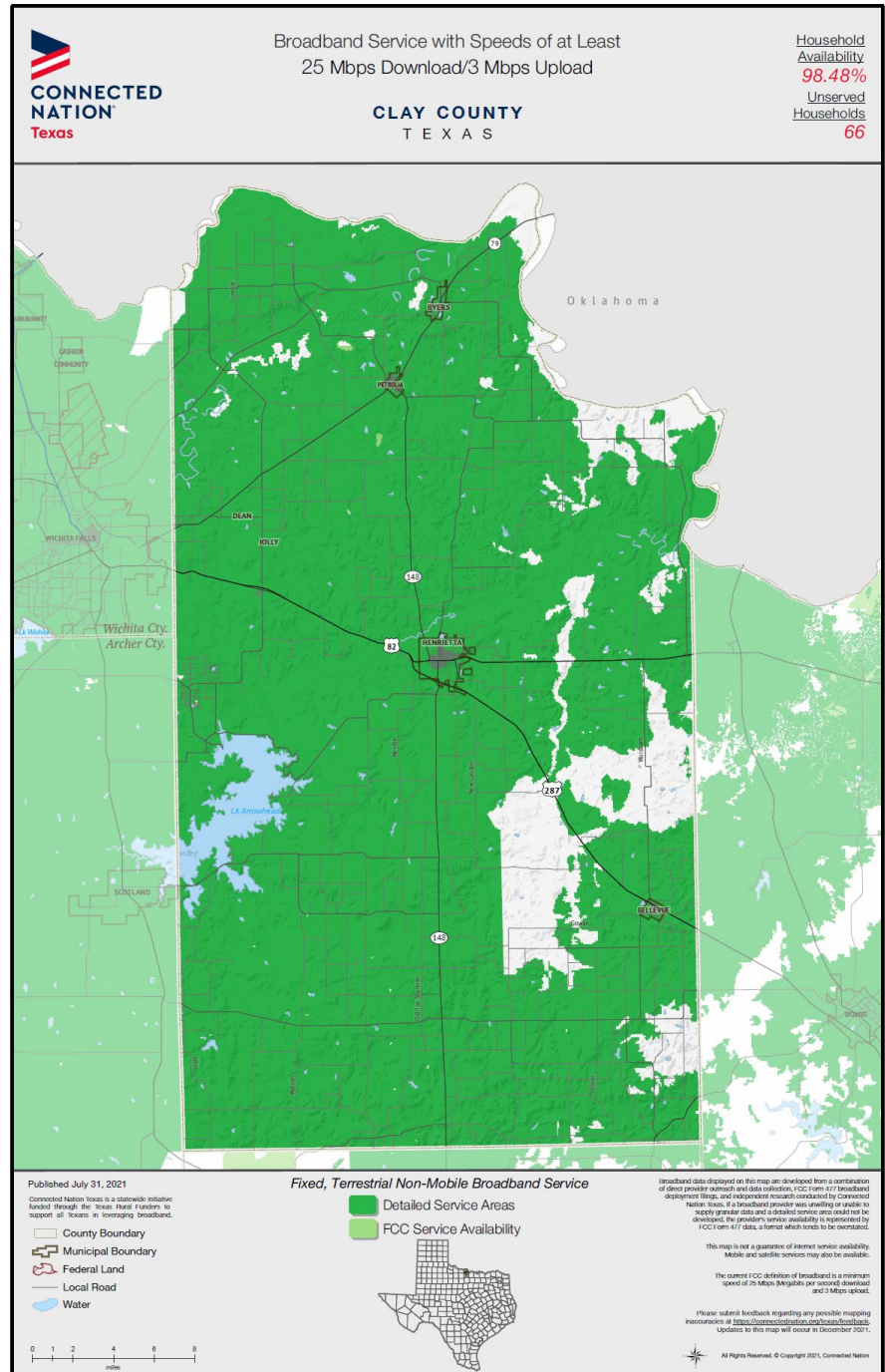
# INFRASTRUCTURE: Clay County



Below is Clay County's (25/3 Mbps) map. To access the full map, go to <https://connectednation.org/texas/county-maps/> and select Clay 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.

The first step in understanding the status of broadband infrastructure in Clay County and statewide is having accurate maps. Accordingly, CN Texas works with providers to develop a variety of broadband maps at a 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.

Access the full map as a PDF [here](#).



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



HOUSEHOLD  
SURVEY RESULTS  
*03*

**HOUSEHOLD  
QUICK FACTS**

Fixed Home Broadband Adoption  
**72.3%**

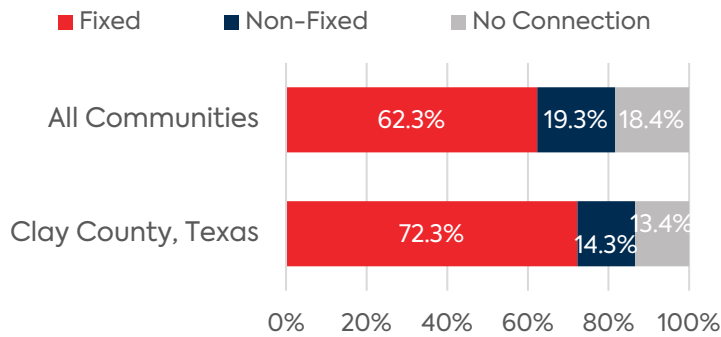
Average Monthly Internet Cost  
**\$70.08**

Average Download Speed  
**30.6 Mbps**

Households Satisfied with Service  
**66%**

The following section provides an overview of results from a broadband survey conducted in Clay County between September and November 2021. Altogether, CN Texas received 462 completed surveys from households across the county, and respondents provided insights into their internet connectivity or lack thereof. Data from Clay 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.

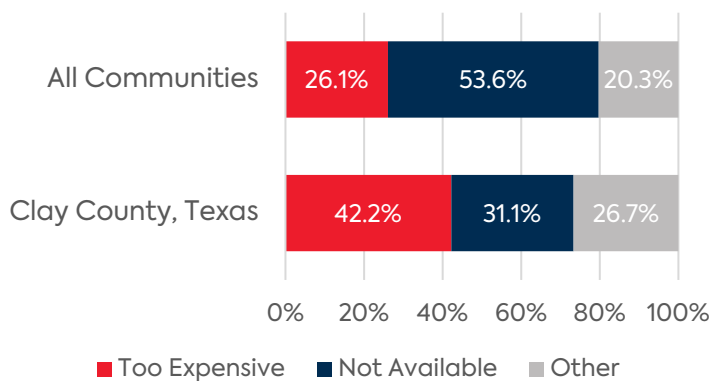
**Home Broadband Adoption**



**ADOPTION**

In Clay County, 72.3% of households that took the survey and knew their internet platform said they subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology. One in seven respondents (14.3 %) indicate they have internet service delivered via dial-up, satellite, or a mobile wireless service. This leaves 13.4% of survey respondents without internet access at home.

**Primary Barrier**

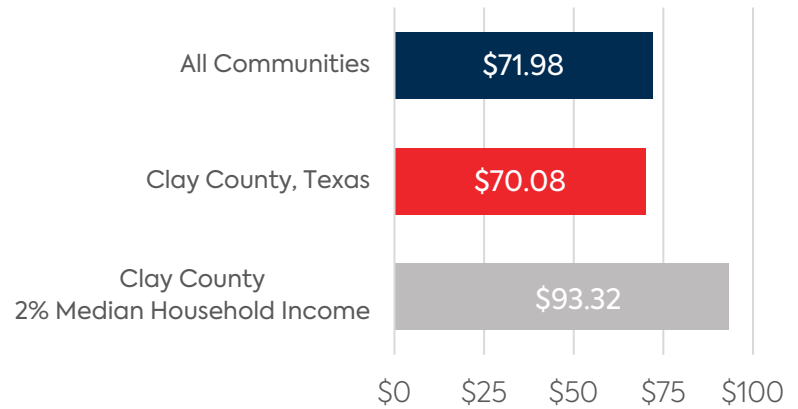


Among those without a home internet connection, 31.1% said they did not have broadband because it was not available to them, while more than two-fifths (42.2%) indicate that it was too expensive. Like in many communities, cost and availability are the two primary barriers to home broadband adoption.

## CONNECTION DETAILS

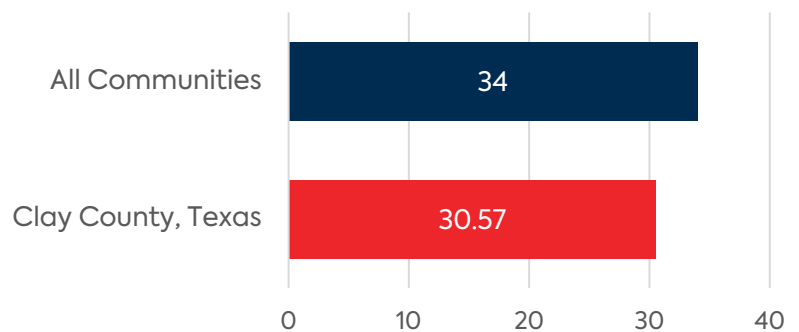
Two percent of monthly income is a recognized standard for measuring the affordability of a home internet connection. Respondents indicate that, on average, their internet connection costs about \$70.08 per month. This is lower than the monthly cost in other communities (\$71.98). Two percent of the median household income in Clay County is \$93.32 per month.

### Average Monthly Cost

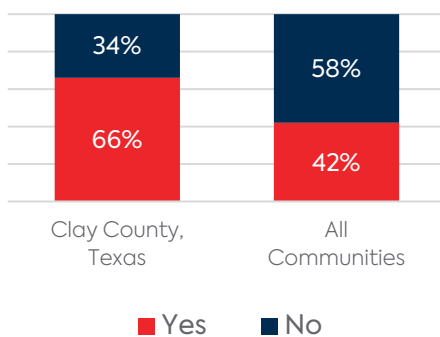


The FCC currently defines broadband as an internet connection with a download speed of at least 25 Mbps and upload speed of at least 3 Mbps. On average, respondents indicate that their connection's download speed is 30.57 Mbps, which is above the minimum defined speed.

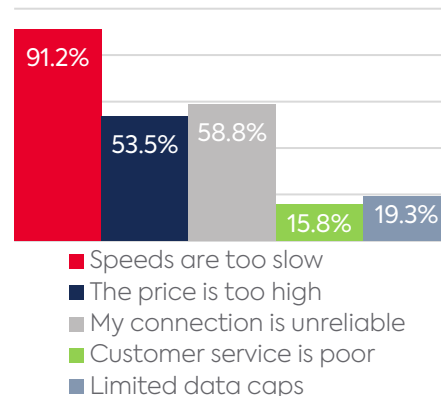
### Average Speeds (Mbps)



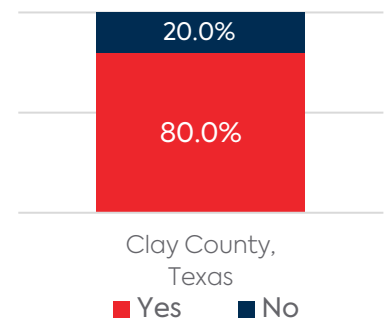
### Does Your Internet Meet Your Needs?



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



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





# HOUSEHOLD SURVEY RESULTS: Clay County

Competition provides residents with choices for service, allowing households the ability to switch providers if their current service does not meet their needs. Just over one-third (34%) of responding households indicate that their internet connection does not meet their needs. This is a much lower rate of dissatisfaction than among households in other communities (58%).

When asked why their connection does not meet their needs, 91.2% of dissatisfied households indicate that their speed is too slow; 53.5% say the price is too high, and almost six out of 10 (58.8%) indicate that the connection is unreliable. Respondents could choose more than one reason for dissatisfaction.

Finally, 80% of all respondents indicate that they are interested in additional internet choices for their home.

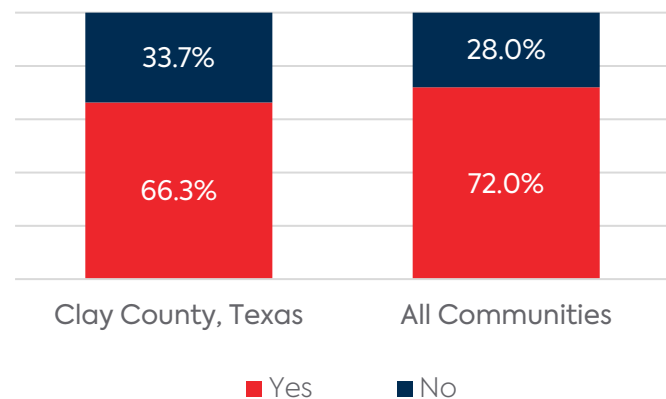
## MOBILE CONNECTIVITY

Almost two-thirds (66.3%) of households reported that they subscribe to mobile internet service, which they access via a smartphone or similar mobile device. This is a little less than what is reported in other Connected Communities (72.0%).

Additionally, 25.5% of mobile-connected households report that they 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: Clay County

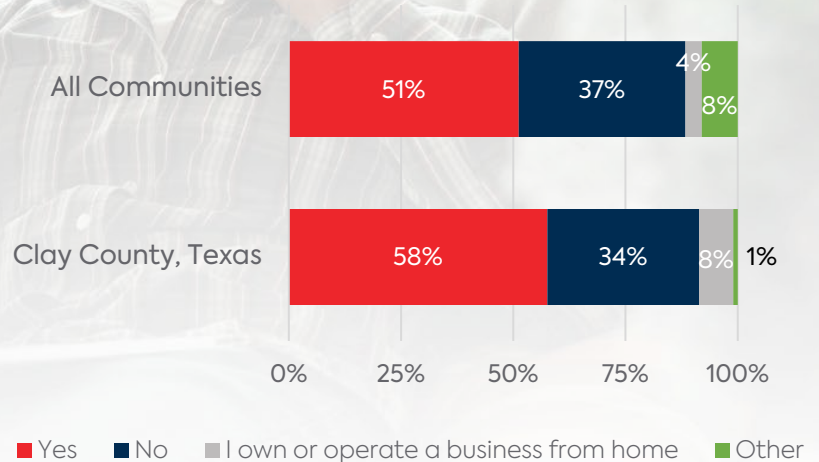
## TELEWORK

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. In Clay County, the lack of broadband access was a likely barrier to organizations operating virtually if needed.

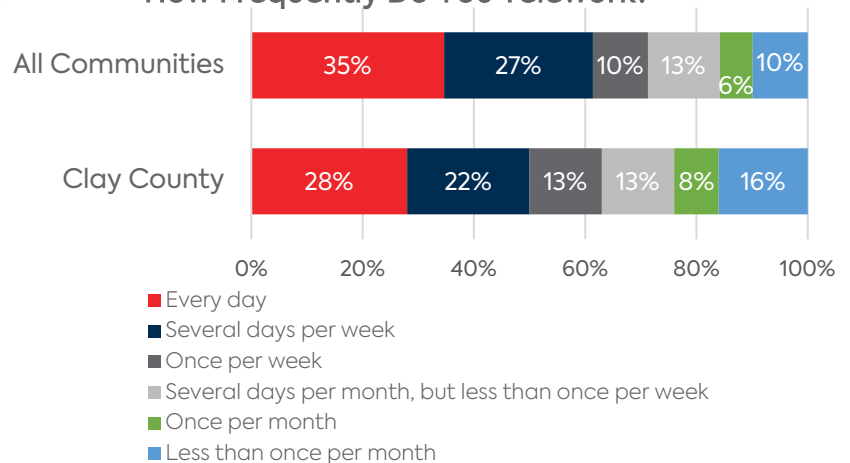
Teleworking is quickly becoming a critical part of growing a local economy because it represents an opportunity to attract and retain employees even when employees are not located in the same community as their employers. However, this only works if those employees have access to advanced broadband infrastructure.

Approximately 58% of employed respondents in Clay County telework in some capacity. Over one-quarter (28% of this group) telework every day.

### Do You Currently Telework?



### How Frequently Do You Telework?





RECOMMENDATIONS *04*



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

## Clay County Technology Action Plan

**Goal 1: Ensure that Clay County can attract and retain businesses; offer residents better outcomes in health care, education, and public safety; drive innovation in business and agriculture; and is well-positioned for the technology needs of the future.**

Broadband is infrastructure of opportunity, or as Clay County Ag Extension Agent Bill Holcombe said, “When you increase somebody’s ability to communicate, to learn, you open up their world for them.”

A community with 100% high-speed internet is better positioned to attract and retain businesses, offer its residents better outcomes in health care, education, and public safety, as well as drive innovation in business and agriculture.

As Clay County Judge Mike Campbell reminded us at our kick-off event, Henrietta was not intended to be the county seat of Clay County, but when the railroad came, industry followed. Likewise, where there is high-speed internet, industry will follow. Ensuring that Clay County is 100% served by high-speed internet will ensure its residents are not only not left behind, but well-positioned for the technology needs of the future.

Clay County should make bridging the Digital Divide a priority and is well-positioned to meet this goal. According to CN Texas July 2021 data, 99.6% of Clay County households meet the current FCC definition of broadband (25 Mbps download speed / 3 Mbps upload speed), while 81.3% of the county has speeds of 100 Mbps download and 10 Mbps upload. Additionally, all but a small part of the unconnected areas are those where Connect America Fund Phase Two (CAF II) and Rural Digital Opportunity Fund (RDOF) federal funds have already been allocated (see resource section for more information). Based on community discussions with internet service providers (ISPs) working in the area, expansion plans are already underway to connect almost all of the remaining unserved areas. Of 4,319 households in Clay County, 0.4%, or roughly 17 households, are unserved by the minimum broadband speed. By maintaining good relations with service providers, keeping open communication and understanding the obstacles they face, helping to identify areas of opportunity for expansion, and investing in adoption and literacy programs for residents, Clay County can create an environment where providers want to do business, and where residents reap the benefits.



# RECOMMENDATIONS: Clay County



**Objective:** Ensure every household, business, nonprofit, farm, and ranch in Clay County has access to high-speed internet that meets their needs.

How do we reach this goal?

**Action 1:** Clay County should make broadband a priority by making an official commitment: submit a proclamation into record that Clay County is committed to bringing high-speed internet to all residents.

Timeline: Set a goal for 100% internet coverage and make an official proclamation within three months.

**Responsible parties:** County Judge, Commissioners Court, and the Clay County Community Broadband team:

Judge Mike Campbell, Clay County Judge  
David Hedges, Petrolia CISD Superintendent  
Sunny Mitchell, Bellevue ISD Technology Coordinator  
Dr. David Greer, Physician  
Lloyd McCauley, PC Net  
Bill Holcombe, Clay County Extension Agent, Texas A&M AgriLife  
Lanny Evans, Clay County Sheriff's Office  
Norma J. Ruiz-Hearne, Director Edwards Public Library  
Retta Collins, Clay County Commissioner for Precinct 3

**Action 2:** Establish central leadership for broadband advancement in Clay County as a tool for economic advancement and enhanced quality of life.

Building on the work of the Clay County Broadband team, the County Commissioners Court should establish a permanent Broadband Committee or Council to act as advisors to the county and appoint a Broadband Liaison to lead the effort.

Establishing leadership is essential. Whether paid or volunteer, part time or full time, the Broadband Liaison will be the point of contact for broadband in the county. He or she will be the person who stays up to date on all things broadband, including new construction projects in the region, new laws, and funding opportunities. This person will also need to maintain a community presence to keep residents interested and engaged in the process.

Broadband Council advisory members should include representatives from a wide variety of community stakeholders, such as:

- **Health Care:** Local physicians or hospital staff
- **Government:** County Judge, County Commissioners, Mayor, City Council, County IT Director
- **Education (K-12):** Superintendents, School IT Directors

# RECOMMENDATIONS: Clay County



- **Education (Higher Education):** University, community college, trade schools or workforce training
- **Public Safety:** County Sheriff's Office, Police Department, Fire and Rescue and surrounding Volunteer Fire Departments, Emergency Medical Services
- **Agriculture:** County Ag Agent, Leading Ag Producers
- **Business:** Chamber of Commerce, Economic Development
- **Community At-Large:** A community member who is interested in broadband

**Timeline:** Establish an official Broadband Council and select a countywide liaison within six months.

**Responsible parties:** County Judge, Commissioners Court, Clay Community Broadband Team.

Broadband Council Responsibilities should include:

- Keeping abreast of state and national broadband policy initiatives and notable broadband news: The Broadband Council should keep up to date on any publications, events, and policy briefs published by the (1) Governor's Broadband Development Council (GBDC) and (2) Broadband Development Office (BDO), as well as monitor notable broadband developments via industry newsletters and focused research.
- Keeping the community informed of projects and progress and invite community participation to maintain community buy-in and high adoption rates: Getting community buy-in is essential to the long-term success and sustainability of community initiatives. Success of local initiatives requires community support, transparency, and engagement. Not only will this help keep the momentum going, but this will also show providers there is true interest for expanded service in the area and encourage greater investment in the region.

According to the data gathered via the survey, Clay County has a higher adoption rate than other Connected communities — 86.6% of Clay County residents subscribe to some sort of internet service in their homes, versus 81.6% in other Connected communities. This shows that Clay County residents have a high interest in technology and are perfectly suited to be high adopters. Keeping them well-informed will help them reap the benefits that technology has to offer and ensure they remain engaged broadband consumers.

The Broadband Council can help maintain community enthusiasm for expanded broadband by creating a Broadband Resources website (or a webpage on the county website) devoted to broadband resources and engaging in regular broadband communication with the community via in-person events, press releases, and social media.

Communications should explain the benefits of expanded internet for residents and businesses, along with the positive impacts that universal broadband can bring to the region. The county should host public forums to discuss its plans and offer regular community events to host technology demonstrations and educational presentations to maintain community

engagement in the process and inspire residents about technology and innovation. Access to high-speed internet can bring technological innovation in any industry; the ways to create excitement are limitless.

- Maintaining open communication with area ISPs: On October 20, 2021, the Clay County Broadband team hosted an online meeting with five area Internet Service Providers (ISPs). Providers showed enthusiasm for working with Clay County, and many shared further expansion plans for the region.

The Clay County Broadband Council should strive to maintain open communication and positive relations with service providers working in the area. This should include regular check-ins with providers to: stay abreast of construction and expansion progress or changes in plans, identify any obstacles or challenges they are facing, and communicate community goals and objectives. Open communication allows for providers to better understand community needs and for communities to better understand the obstacles and barriers providers face. This understanding can encourage creative problem solving, which can lead to finding solutions through public-private partnerships. Public-private partnerships are arrangements between public entities, such as local governments, and private entities, such as service providers, to achieve a common goal. They are often, but not always, funding arrangements. Additionally, the county should strive to be an environment that is amenable to business; this means having easy-to-use websites that allow providers and vendors quick access to relevant information, as well as fostering a business environment that rewards open communication and timely resolution of concerns.

The good news is that expansion plans are already underway in Clay County. Several providers have received federal funding for broadband infrastructure deployment and buildout has begun.

The Clay County recipient of Connect America Funds (CAF) Phase II funds is AMG Technology Investment Group LLC (Nextlink), which received \$184,317.50 in funding for 322 locations. Clay County recipients of Rural Digital Opportunity Funds (RDOF) funds are: AMG Technology Investment Group LLC (Nextlink), which received \$1,730.20 for one location; CCO Holdings LLC (Charter), which received \$387,057.60 for 1,084 locations; and Comcell Inc., which received \$4,644.00 for eight locations.

Based on available data and preliminary CAF Phase II and RDOF expansion plans, Clay County is poised to bridge the Digital Divide soon. To ensure this happens, the Clay County Broadband Council have a clear understanding of where broadband build-out is planned, when completion is expected, what technology and speeds will be available, and what areas will be left out, so that it can focus efforts and maintain momentum.

### Action 3: Incorporate broadband development and planning in local budgets.

Budgets express values, and putting broadband resources in the budget would show the county's commitment to broadband. Broadband expansion will bring added benefits to the community and its

residents, including employment opportunities, innovation, and quality of life improvements. Under advisement from the Broadband Liaison and Broadband Council, the county should commit funds to expand broadband access, adoption, and use, setting aside resources that reflect the broadband priorities of the community.

In March 2021, the American Rescue Plan Act of 2021 (ARPA) established the Coronavirus State and Local Fiscal Recovery Funds (SLFRF) to provide state, local, and Tribal governments with the resources needed to respond to the Coronavirus pandemic and its economic effects. Clay County is the recipient of \$2,033,869.00 in ARPA funds. The SLFRF provides substantial flexibility for each government to meet local needs — including support for households, small businesses, impacted industries, essential workers, and the communities hardest hit by the crisis. These funds also can be used to make necessary investments in water, sewer, or broadband infrastructure. Additionally, new guidance for ARPA funds use was released in January 2022. The Final Rule for the program can be found here <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds> and listed in the resources below. Per The U.S. Department of the Treasury, the ARPA Final Rule takes effect on April 1, 2022, but recipients can choose to take advantage of its flexibilities and simplifications now.

NOTE: Communities should be aware that although an unprecedented level of funds will now be available for broadband, taking the time for thoughtful broadband planning and long-term strategy will remain crucial for communities to use this once-in-a-generation opportunity to its greatest impact

#### Action 4: The county should consider a Broadband Field Validation Study.

CN Texas January 2022 data state that 99.6% of Clay County households are served at 25/3 Mbps, and 81.3% are served at 100 Mbps, but survey responses show that average download speeds in Clay County are only 30.57 Mbps. Field validation would allow the county to identify where broadband infrastructure exists by evaluating actual assets in the field. This may include locating, identifying, and documenting targeted wireline platforms such as digital subscriber line (DSL), hybrid fiber coaxial (HFC), fiber-to-the-home (FTTH), middle-mile fiber optic transport lines, and fixed wireless transmit locations, mapping infrastructure assets, and provider service boundaries. Such work would allow the community to accurately assess and map known broadband speeds and delivery platforms. Connected Nation, or another third-party telecom engineering company, could be hired to do this work.

If the results of the validation show gaps or areas of concern, then asset mapping or an asset inventory could be warranted. In asset mapping, communities identify public and private assets and infrastructure that can assist in broadband expansion. These can include obvious assets such as fiber, conduit and towers, but can also include less obvious assets such as rooftops, rights-of-way, and strategic properties. This is especially important when thinking of the last remaining unserved sections



of the county and identifying what assets the county or community at large can put toward the effort of connecting them. This will allow the county to identify new opportunities.

## Resources:

### Funding

#### \* CAF Phase II

The Connect America Fund (CAF) Phase II is a federal funding program for service providers that auctioned off census blocks for internet deployment in 2018. 103 bidders won \$1.49 billion over 10 years to provide fixed broadband and voice services to over 700,000 locations in 45 states. To be eligible, a census block could not have been served with voice and broadband of at least 10/1 Mbps.

Winning providers have six years to fulfill deployment:

- 40% of the required number of locations in a state by the end of third year of support
- An additional 20% in each subsequent year
- 100% by the end of the sixth year of support
- The exact deployment schedule is determined by the carriers themselves, not the FCC. (Source: <https://www.fcc.gov/auction/903>)

#### \*RDOF Phase I

The Rural Digital Opportunity Fund (RDOF) Phase I is a federal funding program for service providers that auctioned off census blocks for internet deployment in 2020. 180 bidders won \$9.2 billion over 10 years to provide broadband to 5.2 million locations in 49 states and the Commonwealth of the Northern Mariana Islands. To be eligible, a census block could not have had service of at least 25/3 Mbps (based on Form 477 data), or have a provider already committed to providing service via the CAF II auction, the USDA ReConnect program, or state-specific programs.

Winning providers have eight years to fulfill deployment:

- 40% of the required number of locations in a state by the end of third year of support and an additional 20% by the end of the fourth and fifth years of support
- By the end of year six, revised location totals will be announced:
  - If there are fewer locations than originally estimated by the cost model, support recipients must serve the revised number of locations by end of year six. If there are more locations than originally estimated by the cost model, support recipients must serve the cost model-estimated number of locations by the end of year six and must serve the remainder of locations by the end of year eight
- All support recipients must serve locations newly built after the revised location total but before the end of year eight upon reasonable request

# RECOMMENDATIONS: Clay County



- The exact deployment schedule is determined by the carriers themselves, not the FCC. (Source: <https://www.fcc.gov/auction/904>)

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)

Final Rule

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

- <https://home.treasury.gov/system/files/136/SLFRF-Final-Rule.pdf>

Current Broadband Funding

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

BroadbandUSA: Federal Funding Guide

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

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

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

## Broadband Readiness

Texas Broadband Providers by County

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

Smart Cities Readiness Guide

<https://rg.smartcitiescouncil.com/>

Becoming Broadband Ready TOOLKIT

<https://nextcenturycities.org/broadband-toolkit/>

Municipal Boards: Best Practices for Adoption Technology

<https://insights.diligent.com/boardroom-technology-local-government/municipal-boards-best-practices-for-adopting-technology>

## Broadband leadership

City of Memphis: Broadband Project Manager, Senior

<https://memphistn.referrals.selectminds.com/jobs/broadband-project-manager-senior-1529>

Letter: Do your part on broadband

[https://www.thepilot.com/opinion/letter-do-your-part-on-broadband/article\\_026daa54-3370-11ec-94a1-f72ef6c67483.html](https://www.thepilot.com/opinion/letter-do-your-part-on-broadband/article_026daa54-3370-11ec-94a1-f72ef6c67483.html)

The Anatomy of a Community Broadband Manager

<https://nextcenturycities.org/the-anatomy-of-a-broadband-manager/>

TARA Leadership: Rondella Hawkins

<https://austintexas.gov/page/tara-leadership>

**Goal 2: Ensure that Clay County residents have the tools they need to improve their workforce readiness, business competitiveness, and quality of life, and that Clay County businesses and public entities have the tools they need to improve public communications.**

Libraries are community hubs. They are sources of information, education, and community engagement. Libraries are perfectly suited to be locations of information and technology services. Further, Edwards Public Library has space for classes, and Library Director Norma J. Ruiz-Hearne has an interest in offering more digital resources to the community.

**Objective:** Empower Edwards Public Library to bridge digital literacy gaps in Clay County by offering digital literacy training for residents, businesses, and public officials.

How do we reach this goal?

**Action 1:** Improve internet speed at Edwards Public Library.

When the internet is down, patrons cannot check out books, research the catalog, or access resources online, which are all fundamental to library service. The library's response to the Connected Nation survey indicated that its internet service is unreliable. The library should research and pursue the best available internet access in the area. Libraries, like schools, need to have the fastest speeds available because they serve as public computing centers where those without internet at home can go to get online and apply for jobs, where students come to study, and where many people are online at the same time.

# RECOMMENDATIONS: Clay County



The library should investigate its use of E-rate and determine if it is maximizing the funds that are available to support internet services, and/or explore what opportunities might exist to bring greater services to the library through the E-rate program.

Timeline: Internet speeds should be improved immediately.

## Action 2: The library should offer digital literacy classes to residents to improve workforce readiness and computer literacy.

According to the Organization for Economic Cooperation and Development (OECD), one-third of working-age Americans lack basic digital skills. One in six are unable to use email, search the internet, or use other basic online tools (Ezell 2021).

In answering digital literacy capacity questions, Clay County survey respondents listed a majority of answers in the “I know a little” category to the “I am comfortable with this” category for a wide range of technological skills, although they consistently ranked below other Connected communities in all skill gradings. This shows residents could benefit from brushing up on digital literacy across the board.

Timeline: The library should begin digital literacy training to residents within six months.

## Action 3: Edwards Public Library should offer website and social media classes for local businesses and public officials.

28% of Clay County survey respondents say they NEVER interact with public safety websites or online, 15.6% NEVER interact with local government websites, 12.7% NEVER interact with county government online, and 43.4 % NEVER interact with K-12 schools online. Worse, 51.7% NEVER interact with the library website. However, over 68% of respondents indicated that they interact online with non-local businesses daily or at least once a week, and 73.8% interact with local businesses daily or weekly. This means they are going online and interacting, just not with the county’s public-facing websites. These are all areas of opportunity.

Classes should encourage local businesses and public officials to develop websites, to update and maintain them regularly, and to use social media, e-commerce, and other advanced broadband and technology applications more often and with greater community impact. Websites that are not frequently updated, or that do not have engaging or relevant content, are not widely used.

Timeline: The library should begin digital literacy training to businesses and public officials within six months.

### **Resources:**

Many free resources exist for digital literacy, such as:

- Texas State Library and Archives Commission Digital Literacy Training Toolkit, which is a free, online training course with lesson plans, workbooks, activity worksheets, and resources covering



# RECOMMENDATIONS: Clay County



computer basics, email, Microsoft applications, resume writing and more. This valuable tool is available to all Texans who want to develop and improve their computer skills.

<https://www.tsl.texas.gov/ld/ael/landitoolkit>

- American Library Association — PLA, AT&T team up to bring digital literacy training to families:
  - <http://www.ala.org/news/press-releases/2021/05/pla-att-team-bring-digital-literacy-training-families>
- Digital Learn Curriculum: [Public Library Association](#)
- A Connected Nation Initiative: <https://www.driveyourlearning.org/>
- AARP Joins with Nonprofit to Teach Tech to Older Adults: [AARP](#)
- A compiled list of resources from Connected Nation: <https://connectednation.org/coronavirus/resources-solutions-providing-connectivity/>

## Sources:

Ezell, Stephen. “Assessing the State of Digital Skills in the U.S. Economy.”

*Information Technology & Innovation Foundation*, November 29, 2021

[https://itif.org/publications/2021/11/29/assessing-state-digital-skills-us-economy?utm\\_campaign=Newsletters&utm\\_source=sendgrid&utm\\_medium=email](https://itif.org/publications/2021/11/29/assessing-state-digital-skills-us-economy?utm_campaign=Newsletters&utm_source=sendgrid&utm_medium=email)

## Action 4: The library and Broadband Council should share resources of available affordability programs.

More than two out of five Clay County households that lack internet (42.2%) cite affordability as the barrier. The average monthly cost of internet service in Clay County is \$70.08, which is slightly less than in other Connected communities. Information about subsidy programs should be shared widely with the community on the County Broadband Resources website, at the library, on social media, and throughout the community.

The Affordable Connectivity Program (ACP) (<https://www.fcc.gov/affordable-connectivity-program>) is a Federal Communications Commission (FCC) program that replaced the Emergency Broadband Benefit Program (EBB), which was created in response to the coronavirus pandemic to help low-income households pay for internet service and connected devices.

Eligible households can receive up to a \$30/month discount on internet service (up to a \$75/month discount if on qualifying Tribal lands) and a one-time discount of up to \$100 for a laptop, tablet, desktop computer (with a co-payment of more than \$10 but less than \$50). Only one monthly service discount and one device discount are allowed per household. To receive the connected device discount, consumers need to enroll in the ACP with a participating provider that offers connected devices (check here for participating providers <https://www.fcc.gov/affordable-connectivity-program-providers>). The internet company will provide the discount to the consumer.

Participating providers in Clay County are AT&T, Comcell Community telephone, Nextlink, and North Texas Telephone Co. Providers may offer other low-cost programs, such as Charter Communications,

which has a low-cost option (\$17.99 per month) available for households with a student on free lunches, or seniors. The Clay County Broadband Council should ask area providers if they participate in the ACP or other programs and keep information updated on the County Broadband Resources website.

Timeline: The Broadband Council should share information about affordability programs immediately.

**Action 5:** The county, residents, local businesses, and other community entities should support the library with volunteers and funding, as well as help the library promote their services, including training classes, to the community.

The library is a go-to resource for the entire community, especially residents who lack internet access at home or lack higher digital skills. People come to the library for all of their digital literacy needs, to use the public computers, and to ask for assistance submitting job applications, filing taxes, signing up for services online, communicating with friends and family, etc. To continue to offer these vital services, the library needs the entire community's help.

Timeline: The community should be supportive of the library immediately and begin to promote library services as soon as services are offered or available.

## **Goal 3: Ensure that the Clay County agricultural community has access to high-speed internet, technology resources, and education to improve efficiency and profitability.**

Agriculture is an essential industry, most often located in rural communities that struggle to access high-speed internet. Where agricultural producers have access to high-speed internet, technology has transformed the way they work, bringing better outcomes, higher yields, and greater efficiency. Technology will play a large role in agriculture of the future, in how we feed ourselves, protect our natural resources, and conserve our land. The Clay County Broadband Council should coordinate with the ag community to better understand the technology needs of Clay County farmers and ranchers to contribute to their success.

**Objective:** Improve internet speeds and digital literacy for Clay County ag producers while championing innovation.

How do we reach this goal?

**Action 1:** Identify unserved areas specific to agriculture to ensure ag land is equally prioritized along with residential customers.

Internet buildout often follows population density, but ag producers need internet, too. Clay County has over 850 farms and ranches, and 98% of those are family owned. USDA ag data from 2017 shows

# RECOMMENDATIONS: Clay County



that only 76% have internet access. Connected Nation survey results put that number lower, at only 66.6% of respondents in the agriculture sector with internet. Among the respondents without internet service, 43% say they do not have it because it is not available, and 29% say it is too expensive. The average internet speed that ag producers receive is 14.9 Mbps, well below the FCC broadband standard of 25 Mbps, and below the average of other Connected communities. Efforts to bring 100% high-speed internet coverage to Clay County will greatly benefit the farm and ranch community. The Broadband Council could hire a geanalytics mapping firm to create a map that overlays internet speed data with residential and agricultural land to identify areas of opportunity, and to make sure ag producing land is not left out.

## Action 2: Partner with the Ag Extension office to encourage technology adoption by offering ag-specific technology training and digital literacy.

The small family farmers and ranchers of Clay County would greatly benefit from technology education and resources tailor-made for agriculture. The Connected Nation survey received a large response rate from ag producers, indicating high interest in broadband adoption and use. Respondents indicated a high level of interest in agriculture technology applications, such as Farm Management Information Systems, Telematic Equipment Monitoring, Unmanned Aerial Vehicles (Drones), Remote Integrated Displays, Nutrient Management Systems, and Geo Fencing, among others.

Depending on community interest and participation, education resources could be as simple as sharing links and information about innovations in ag technology on the County Broadband Resources website, or through social media channels. The Ag Extension office could also partner with the library to offer ag-specific digital literacy training classes. If the community shows interest, they could invite ag technology speakers to present workshops or seminars to local farmers and ranchers. More ambitious plans could include hosting a Clay County Agriculture Technology Summit that could attract participation from outside the region. There is no doubt that more connectivity and more technology will only benefit family farms and ranches. Clay County Broadband Council should continue to keep the ag sector in mind with all future planning.

Timeline: Ag-sector classes should begin within six months.

Responsible Parties: Clay County Broadband Council, Edwards Public Library and Clay County AgriLife Extension office.

### Resources:

US Dept. of Agriculture <https://www.usda.gov/>

USDA National Institute of Food and Agriculture – resources <https://nifa.usda.gov/resources>

The Texas A&M AgriLife Extension Service <https://agrilifeextension.tamu.edu/>

Texas Rural Leadership Program <https://agrilifeextension.tamu.edu/programs/texas-rural-leadership-program/>

The Farm Journal: Ag Web, technology <https://www.agweb.com/technology>

Free online Agriculture course from universities across the globe

<https://www.classcentral.com/subject/agriculture>

Ku, Linly. "New Agriculture Technology in Modern Farming." *Plug and Play*, October 06, 2021.

<https://www.plugandplaytechcenter.com/resources/new-agriculture-technology-modern-farming/>

## Goal 4: Identify funding opportunities for programs and projects that benefit Clay County using broadband and related technologies.

**Objective:** Ensure Clay County utilizes all available resources to improve quality of life and economic outcomes through technology.

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