




Connected
A CONNECTED NATION Initiative

Addressing Your Community's Unique Needs

Hardeman County, Texas Executive Summary

May 2022

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NATION** 
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03	Overview
06	Infrastructure Results
09	Household Survey Results
14	Recommendations



Overview



Today, 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 Hardeman 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 steps would have the greatest impact toward improving broadband access, adoption, and usage across every local sector.

Pursuant of this goal, between October 2021 and January 2022, Hardeman County conducted a comprehensive survey of broadband technology access and adoption across the community that collected responses from 141 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 Hardeman 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](#).

HARDEMAN COUNTY, TEXAS QUICK FACTS	
Population	3,549
Households	1,672
Median Household Income	\$47,188
Poverty Rate	14.1%
Adults with a Bachelor's Degree or Higher	16.3%
Hispanic or Latino	23%
Households with Broadband Access ¹	99.03%

Source:

<https://data.census.gov/cedsci/profile?q=0500000US48197>

¹The 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/>



57.4% of households in Hardeman County report subscribing to fixed internet service



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

*Only **58.85%** of households in Hardeman 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 these speeds.*

*Fewer than one-half of employed survey respondents in Hardeman County (**47.5%**) report teleworking in some capacity. Of those, only **7%** telework every day, and an additional **22%** telework several days per week.*

***45.3% of households and 60% 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.*

*Nearly 9 out of 10 households (**87.7%**) said they would like to have improved or additional options for home internet service.*



Infrastructure Results



According to CN Texas broadband data initially released in January 2022, followed by additional public feedback, field validation, and provider input: virtually all Hardeman County households (99.03%) 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 Hardeman County is distributed throughout the county.

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

BROADBAND INFRASTRUCTURE QUICK FACTS

Unserved Households (25/3 Mbps)
17

Households Served (10/1 Mbps)
99.03%

Households Served (25/3 Mbps)
99.03%

Households Served (50/5 Mbps)
97.88%

Households Served (100/10 Mbps)
58.85%

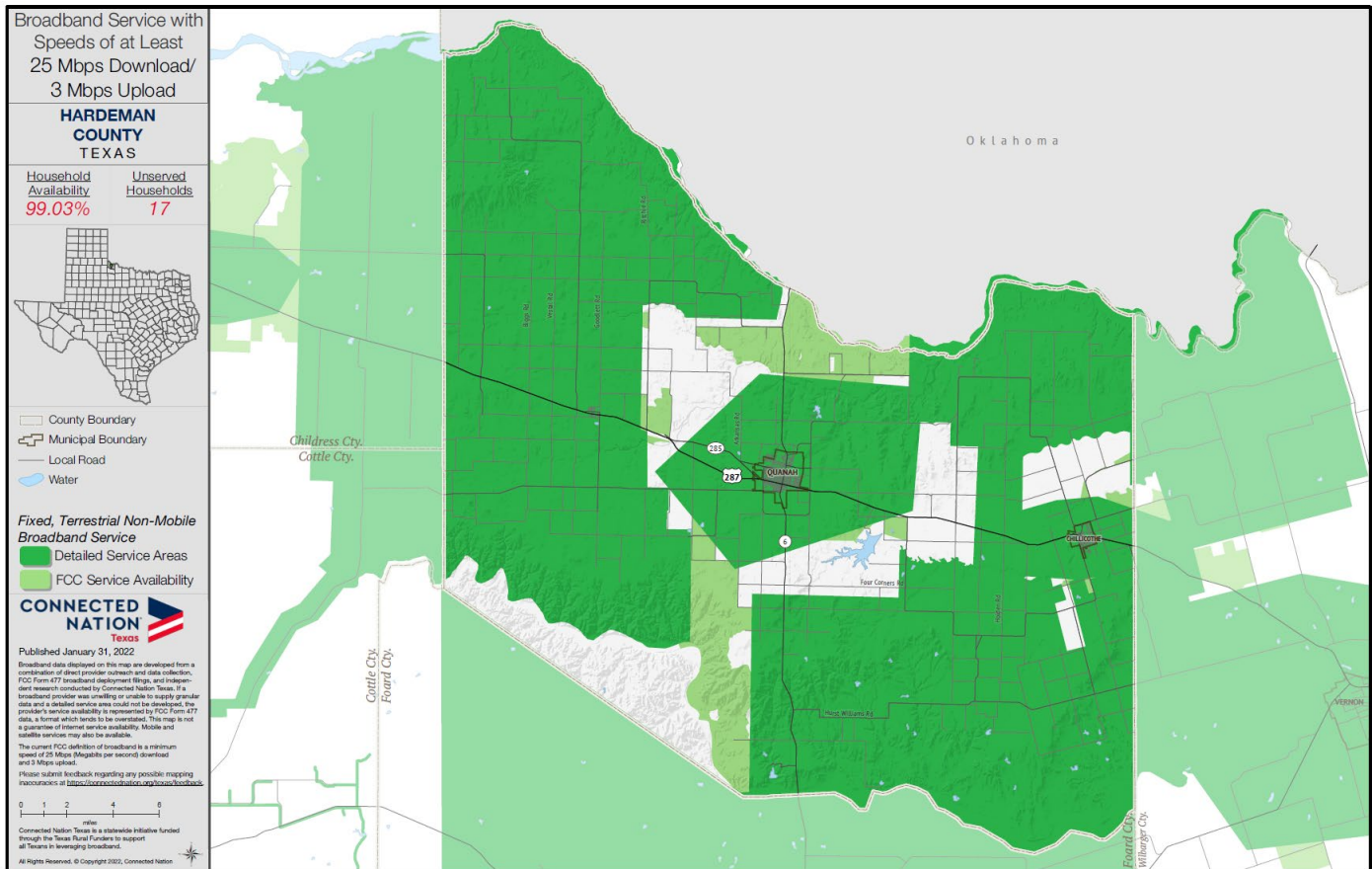
*Broadband data released by CN Texas in January 2022:
<https://connectednation.org/texas/mapping-analysis/>*

PROVIDER	TECHNOLOGY	MAXIMUM DOWNLOAD SPEED (Mbps)	MAXIMUM UPLOAD SPEED (Mbps)
AT&T Southwest	DSL	18	1.5
Santa Rosa Telephone Cooperative Inc.	Fiber	1000	1000
Suddenlink Communications	Cable	400	40
TGM Pinnacle Network Solutions	Fixed Wireless	50	5
T-Mobile	Fixed Wireless	25	3

Hardeman County Infrastructure



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



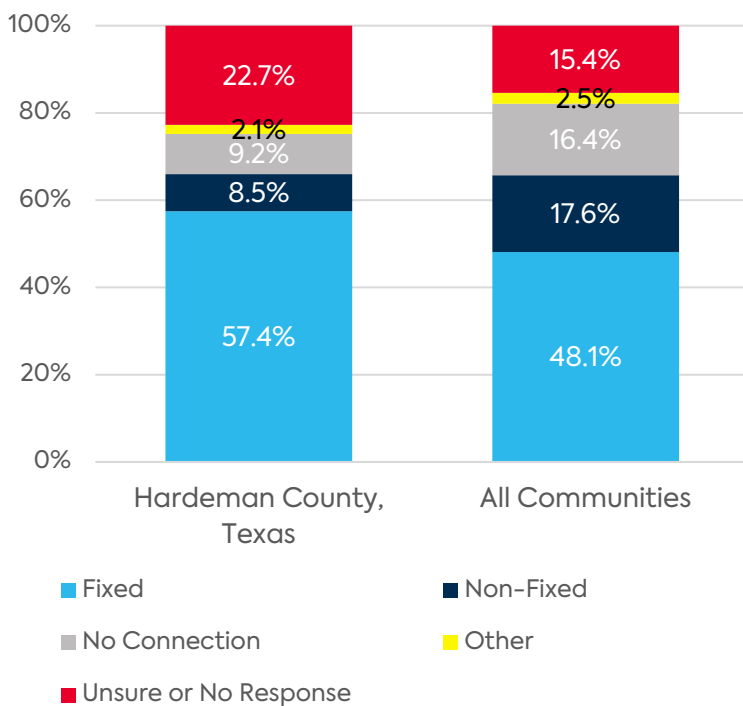
Household Survey Results

Household Survey Results



The following section provides an overview of results from a broadband survey conducted in Hardeman County between October 2021 and February 2022. Altogether, CN Texas received 141 completed surveys from households across the county; respondents provided insights into their internet connectivity or lack thereof. Data from Hardeman 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

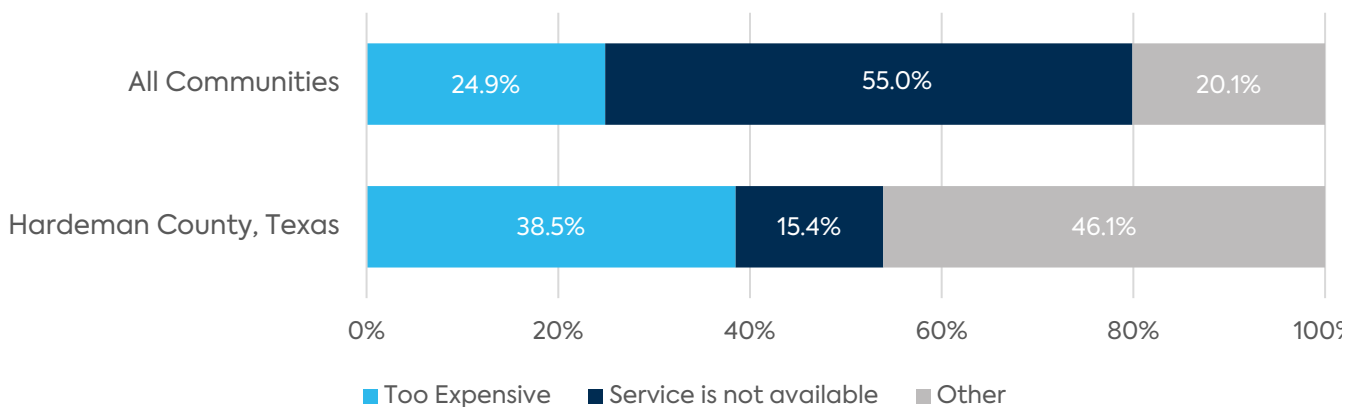


ADOPTION

In Hardeman County, 57.4% of households that took the survey subscribe to fixed broadband service delivered via a cable, DSL, fiber, or fixed wireless technology, while 8.5% indicate they have internet service delivered via dial-up, satellite, or a mobile wireless service. This leaves nearly 9.2% without internet and 24.8% of survey respondents unsure of what service they have or providing no answer.

Among those without a home internet connection, 38.5% said they did not have broadband because it was too expensive. An additional 15.4% say service is not available. Like many other communities, cost is a primary barrier to home broadband adoption.

Primary Barrier

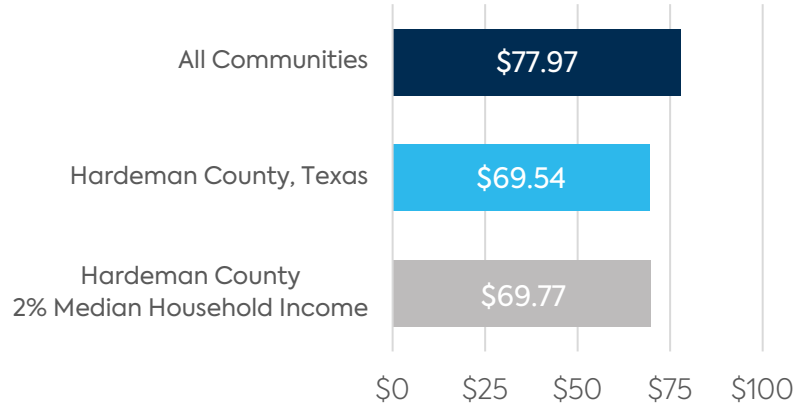




CONNECTION DETAILS

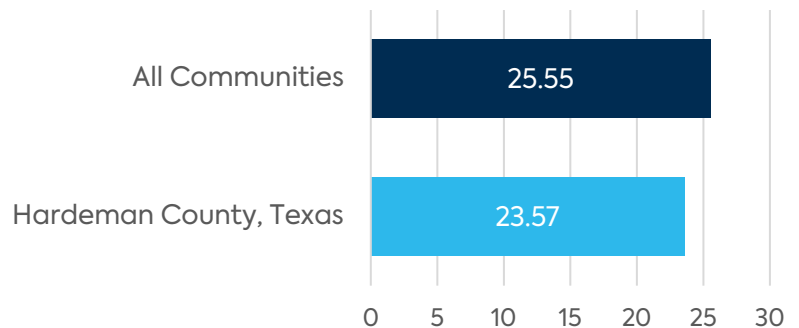
Two percent of monthly income is a recognized standard for measuring the affordability of a home internet connection. Respondents indicate that, on average, their internet connection costs about \$69.54 per month. This is lower than the monthly cost in other communities (\$77.97). Two percent of the median household income in Hardeman County is \$69.77 per month.

Average Monthly Cost

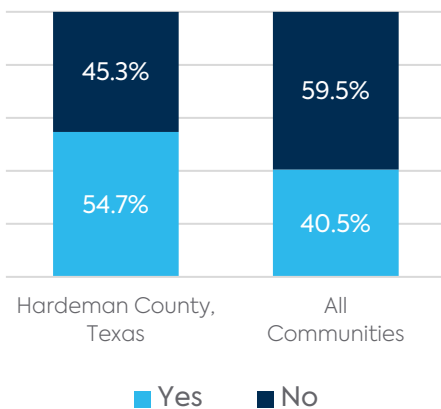


The FCC currently defines broadband as an internet connection with a download speed of at least 25 Mbps and upload speed of at least 3 Mbps. On average, respondents indicate that their connection's download speed is 23.57 Mbps, which is just below the minimum defined speed.

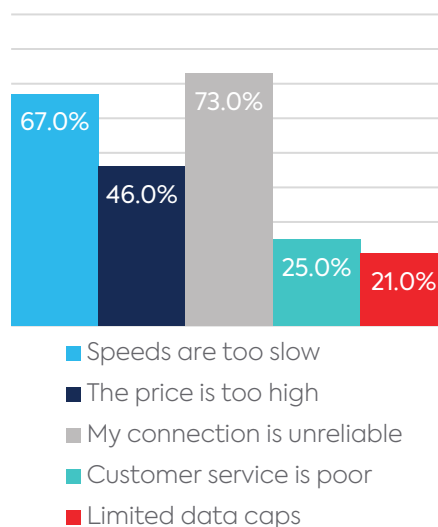
Average Speeds (Mbps)



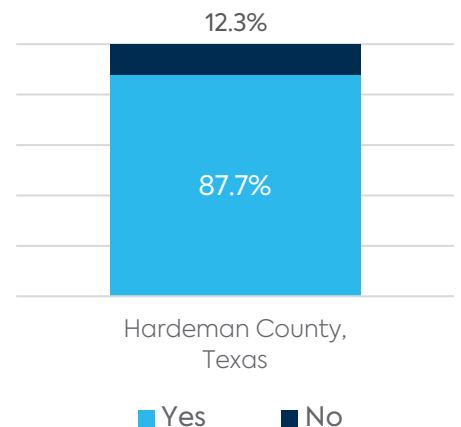
Does Your Internet Meet Your Needs?



Why Doesn't Your Internet Meet Your Needs?



Are You Interested in More Choices at Home?



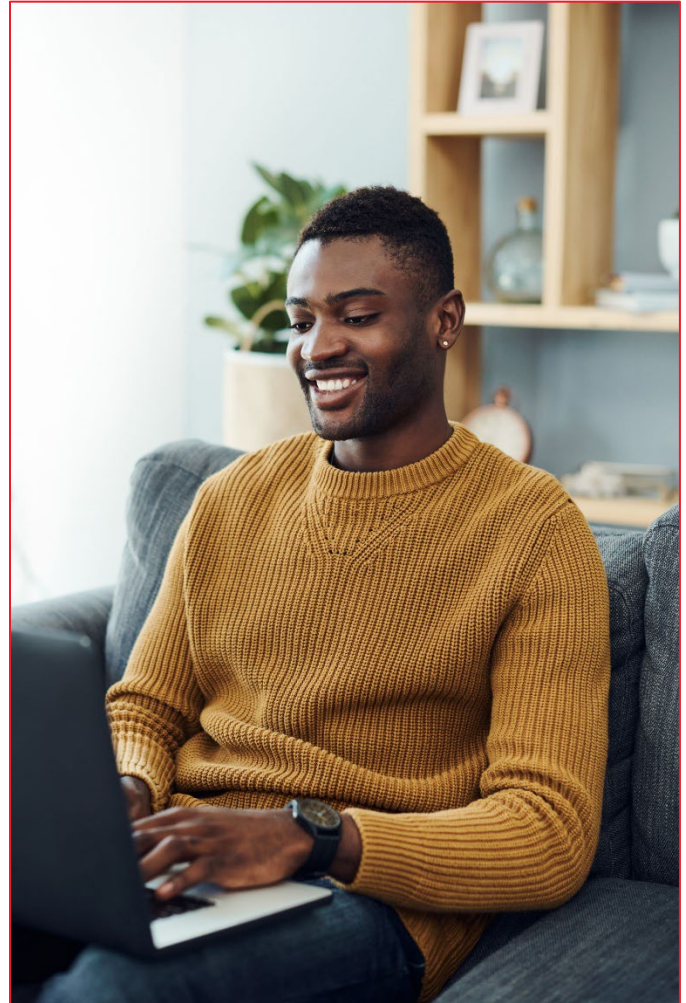
Household Survey Results



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 (45.3%) 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 (59.5%).

When asked why their connection does not meet their needs, 67% of dissatisfied households indicate that their speed is too slow, 46% say the price is too high, and 73% indicate that the connection is unreliable. Respondents could choose more than one reason for dissatisfaction.

Finally, 87.7% of all respondents indicate that they are interested in additional internet choices for their home.

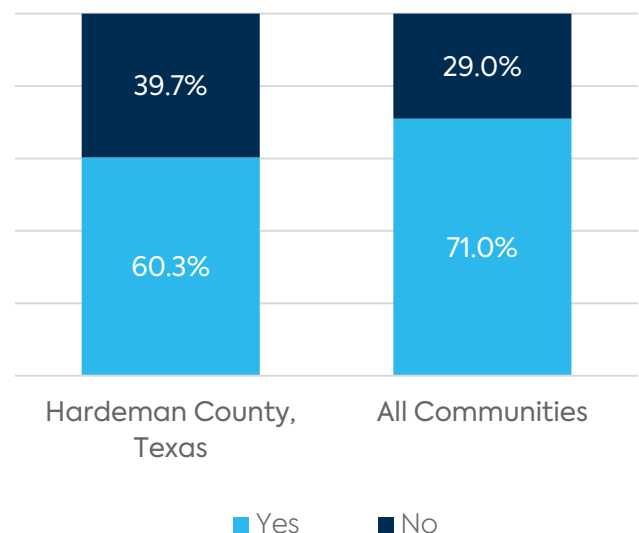


MOBILE CONNECTIVITY

Three out of five households (60.3%) reported that they subscribe to mobile internet service, which they access via a smartphone or similar mobile device. This is 10 percentage points lower than what is reported in other Connected communities (71.0%).

Additionally, 31.5% 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



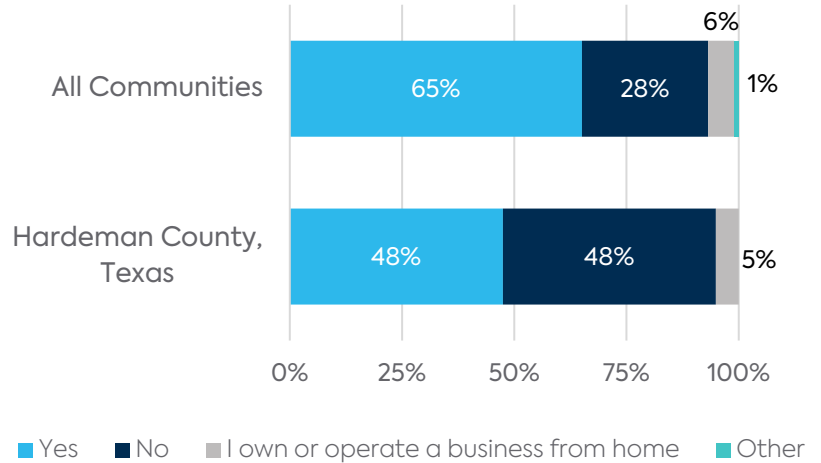
TELEWORK

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.

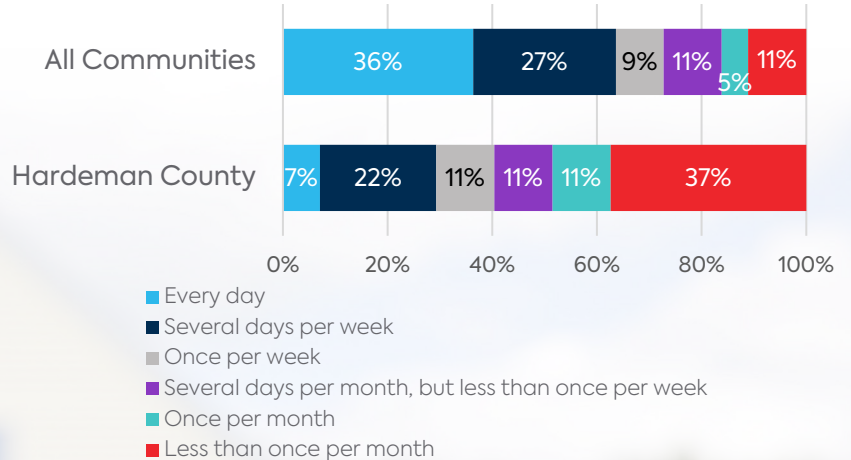
Teleworking is quickly becoming a critical part of growing a local economy because it represents an opportunity to attract and retain employees even when employees are not located in the same community as their employers. However, this only works if those employees have access to advanced broadband infrastructure.

Approximately 47.5% of employed respondents in Hardeman County telework in some capacity. Fewer than one out of 10 (7% of this group) telework every day.

Do You Currently Telework?



How Frequently Do You Telework?





Recommendations



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

Goal 1: Improve internet speeds in Hardeman County

Broadband, or high-speed internet, is essential in today's world. Improving access to high-speed internet in Hardeman County will increase opportunities and improve outcomes in economic development, education, health care, agriculture, public safety, government, and public access to information and services.

According to CN Texas January 2022 data, 99% of Hardeman County households have access to internet speeds at the FCC's minimum definition of broadband, 25 Mbps download and 3 Mbps upload. But only **58.85%** of households have access to internet service at speeds needed to run many modern applications (100 Mbps downstream and 10 Mbps upstream). Although, 25/3 is well covered, there is a significant drop off in availability between 50/5 and 100/10. CN data show there are 17 households in Hardeman County that do not have internet that meets the FCC's minimum speed. At 50 Mbps download/5 Mbps upload, there are 36 Hardeman County households unserved. But when we look at the availability of 100 Mbps download and 10 Mbps upload, the number of unserved households jumps to 706.

This is true even in the center of town, showing that the issue is not population density or lack of infrastructure, but one of providers needing to expand or upgrade their existing networks. There are five internet service providers (ISPs) serving Hardeman County, but only two offer speeds higher than 50 Mbps/5 Mbps. To resolve this, existing providers who offer lower speeds could upgrade their technology to increase speeds; existing providers with higher speeds could expand to cover more territory; or the community could solicit new ISPs who are willing to invest in faster technology, covering a larger area. Regardless, the community needs to take an active role to improve connectivity for Hardeman County residents.

Objective: Improve internet speeds in Hardeman County by increasing community engagement and working with ISPs to address gaps.

Action 1 – Continue community efforts to improve broadband connectivity by maintaining a community broadband team as an advisory committee to the Commissioners Court. During our CN community engagement, we gathered representatives from multiple sectors of the community to serve as advocates for improving connectivity. There is a lot going on in broadband right now. Having a dedicated group of citizens to stay on top of broadband news, policy updates, and funding opportunities is key for Hardeman County to stay informed.

Broadband Committee 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
- **Education (Higher Education):** Universities, community colleges, trade schools or workforce training
- **Public Safety:** Sheriff's Office, Police Department, Fire and Rescue and surrounding Volunteer Fire Departments, Emergency Medical Services
- **Agriculture:** County Agriculture Agent, leading agricultural producers
- **Business:** Chamber of Commerce, economic development agency
- **Community At-Large:** A resident who is interested in broadband

RESPONSIBLE PARTIES:

- Community and business leaders
- County Judge
- County Commissioners
- Current Community Broadband Team:
 - Judge Ronnie Ingram, Hardeman County Judge
 - Becky Barker, Executive Director 3 Rivers Foundation
 - Dennis Thomas, CEO Hardeman County Memorial Hospital
 - Justin Gilliam, Hardeman County Ag Extension Agent
 - Kathy Butler, Mayor of Quanah, TX
 - Patrick Laughery, Hardeman County Sheriff
 - Shane Lance, Library Board President, Mayor Pro Tem, Quanah Tribune-Chief

TIMELINE:

Hardeman County should transition its Community Broadband Team to a County Broadband Advisory Committee immediately.

Action 2 – Build relationships with area ISPs. The County Broadband Advisory Committee should host meetings with ISPs working in the area, especially with providers who have received federal funding for deployment in Hardeman County, to identify any obstacles or challenges to expanded deployment in the region and to help area providers better understand community goals and concerns.

Regular check-ins with providers will also keep community informed of provider's construction and expansion progress or changes in plans. The Broadband Committee should have specific concerns or geographical locations in mind to discuss during these meetings. A good starting point would be to check the status of construction plans related to federal funds to ensure that the promised Connect America Fund (CAF) Phase II, and Rural Digital Opportunity Fund (RDOF) expansion plans are going forward.



The CAF winner for Hardeman County is AMG Technology Investment Group LLC (doing business as Nextlink) receiving \$990,269.50 in federal dollars with plans to serve 252 locations. The Hardeman County RDOF winner is Resound Networks LLC (doing business as Resound Networks) , which is receiving \$603,189, with plans to serve 1,523 locations. The committee should 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.

Additional providers serving Hardeman County are: AT&T Southwest (www.att.com), Santa Rosa Telephone Cooperative Inc. (<https://srcaccess.net>), Suddenlink Communications (www.suddenlink.com) TGM Pinnacle Network Solutions (www.pinnaclenetworksolutions.com), and T-Mobile USA Inc. (www.twncomm.com).

Maintaining good relations with area internet service providers is essential to understanding obstacles and opportunities, and to address broadband deployment shortcomings. 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.

Action 3 – Deploy a request for quotes (RFQ) for an asset inventory and field validation audit. An asset inventory would map the County’s assorted assets that could be utilized by ISPs working in the area to offset deployment costs.

Assets could include:

- Anchor tenants
- Antennas
- Building rooftops
- Light poles
- Towers the cities or counties may own

FCC data tend to be overstated. A field validation will verify where installations actually exist. A field validation would entail locating, identifying, and documenting targeted wireline platforms, such as digital subscriber lines (DSL), hybrid fiber coaxial (HFC), fiber-to-the-home (FTTH), middle-mile fiber optic transport lines, and fixed wireless transmit locations, then mapping infrastructure assets and provider service boundaries. Such work would allow the community to accurately assess and map known broadband speeds and delivery platforms to verify the existing FCC data, and to identify areas of need. Field validations are helpful in cases where FCC data for the county is likely overstated and/or to identify areas of need or opportunity.



Action 4 – The County Broadband Advisory Committee should stay abreast of policy and funding news, and explore funding opportunities to assist in broadband deployment. An unprecedented amount of funds will soon be available to improve broadband access, adoption, and usage. The Hardeman County Broadband Committee should stay abreast of policy updates and funding opportunities. The Infrastructure Investment and Jobs Act of 2021 allocated \$65 billion to states for internet expansion. Much of Texas' minimum \$100 million will be going through grant programs created by the Texas Broadband Development Office (BDO). The BDO is currently gathering data to create a Texas Broadband Plan, an important first step to ensure the state gets the most infrastructure funds. The BDO will be responsible for coordinating data collection and defining eligibility of grants. At the time of the writing of this report it is unclear when much of these funds will be available.

In the meantime, there are funds that are available for broadband right now. The American Rescue Plan Act of 2021 created the Coronavirus State Fiscal Recovery Fund which allocated funds to every county in the state of Texas to mitigate the economic effects of the coronavirus pandemic. Hardeman County received \$763,939. Allowable uses of these funds are water, sewer, and broadband infrastructure improvements. The Final Rule, released by the U.S. Treasury Department in January 2022, gives even more leeway to communities to use their funds for broadband if a need is established. More information can be found here: <https://home.treasury.gov/system/files/136/SLFRF-Final-Rule.pdf> and in the resources section of this report. Allowable uses of ARPA funds for broadband include infrastructure, public Wi-Fi, and devices.

A list of current broadband funding can be found on the Connected Nation website: <https://connectednation.org/current-broadband-funding>.

Action 5 – Pursue regional networking opportunities with adjacent communities that are also exploring broadband solutions. Neighboring Childress and Foard counties are undergoing broadband assessments and community engagements at the same time as Hardeman County. The Hardeman County Broadband Committee should reach out to their counterparts in the surrounding counties to build relationships, compare notes, and share resources. In total, 24 counties in the region will be building broadband committees and assessing broadband needs with the Connected Nation Community Engagement Program. This is an excellent opportunity for community leaders to come together to improve broadband regionally. Your Broadband Solutions Manager (BSM) can help with making contacts. Committee members should also plan to attend Connected Nation networking events.

RESPONSIBLE PARTIES:

- County Judge
- County Commissioners
- Community Broadband Advisory Committee
- Area internet service providers



TIMELINE:

The County Broadband Advisory Committee should begin meeting, analyzing CN data, and looking for networking opportunities immediately. The committee should schedule meetings with ISPs within the next three months and consider an asset inventory and field validation study within the next six months. Your Broadband Solutions Manager can assist you with scheduling initial meetings with ISPs working in your area.

RESOURCES:

BROADBAND FUNDING RESOURCES

- 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 already 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>)

Hardeman CAF Winner: AMG Technology Investment Group LLC (Nextlink), 95 Parker Oaks Lane, Hudson Oaks, Texas 76087, Tel. 855-NXT-LINK (698-5465) <https://nextlinkinternet.com/>

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

Hardeman RDOF Winner: Resound Networks, LLC, 100 N. Cuyler St, Pampa, Texas 79065, Tel. 1-800-806-1719, info@resoundnetworks.com, <https://resoundnetworks.com/>

- American Rescue Plan, Coronavirus State and Local Fiscal Recovery Funds, County Allocation https://home.treasury.gov/system/files/136/fiscalrecoveryfunds_countyfundings_2021.05.10-1a-508A.pdf
- American Rescue Plan, Coronavirus State and Local Fiscal Recovery Funds
 - Program information: <https://home.treasury.gov/policy-issues/coronavirus/assistance-for-state-local-and-tribal-governments/state-and-local-fiscal-recovery-funds>
 - Final rule: <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/>

INTERNET SERVICE PROVIDER RESOURCES

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

BROADBAND READINESS RESOURCES

- 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>

Goal 2: Ensure that all Hardeman County residents can access the benefits of broadband, regardless of income level



Internet affordability and access to devices are chief concerns for Hardeman County residents. Among households without a home internet connection, 15.4% said it was not available at their address, 15.4% said they do not own a computer, and 38.5% said they did not have broadband because it was too expensive. Hardeman County should improve access to devices and internet service, as well as the affordability of internet subscriptions, to improve access to broadband for Hardeman County's low-income residents.

Libraries are a great place to start. Libraries are community hubs that are sources of information, education, and community engagement. They are also one of a community's main resources for technology services. Computers are as important as books in a library because they provide direct access to knowledge. Libraries, like schools, need to have the fastest speeds available in the community because they are where those without internet at home go to get online and apply for jobs, where students come to study, and where many people are online at the same time.

Objective: Utilize the Thompson Sawyer Public Library to combat barriers to internet access and affordability for Hardeman County residents.

Action 1 – Increase funding for Thompson Sawyer Public Library to expand programs and services. The Federal Communications Commission (FCC) has special funding for schools and libraries to help pay for internet costs, called E-rate. In Texas, most accredited public libraries are eligible for an 80% discount, with over a quarter eligible for a *90% discount on internet costs*.

Currently, the library is not accredited or eligible for E-rate. Therefore, it should assess E-rate opportunities and prioritize accreditation to maximize 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.

American Rescue Plan (ARPA) Coronavirus State and Local Fiscal Recovery Funds were allocated to each county and can be used for water, sewer, and broadband infrastructure. Allowable uses include broadband infrastructure, public Wi-Fi infrastructure, and the purchase of devices (see the Resources section of this report and the Treasury Final Rule for more information).

Additional support should be sought from Hardeman County, the City of Quanah, additional grant sources, and the community at large, as library services are important community resources that are available to all residents. Accessing additional resources to make the public library a community technology hub would be of great benefit to the residents of Hardeman County.

RESPONSIBLE PARTIES:

- Libraries and library boards
- Schools



- Broadband providers
- Local and county governments

RESOURCES:

- Texas State Library and Archives Commission – E-rate overview: <https://www.tsl.texas.gov/ld/tech/erate>
- E-rate resources page: <https://www.tsl.texas.gov/ld/tech/erate-resources>

BENEFITS:

Most libraries experience service degradation during peak use times, sometimes dramatically. Increased bandwidth will help to maintain service quality for patrons that may use the library as their only source of broadband access.

Action 2 – The Community Broadband Committee should share information about assistance programs to purchase devices or publicize locations where low-cost or refurbished computers are available for purchase, to combat obstacles to internet access for low-income residents. Among Hardeman County households without a home internet connection, 15.4% said they do not own a computer. The Affordable Connectivity Program (ACP) provides up to \$100 for the purchase of a device to access the internet to qualifying households. Households qualify based on income, or participation in other federal or tribal assistance programs. To receive the connected device discount, consumers must enroll in the ACP with a participating provider that offers connected devices (check here for participating providers <https://acpbenefit.org/companies-near-me/>). More information can be found at <https://www.fcc.gov/broadbandbenefit> and <https://acpbenefit.org/>.

Another option is buying used or refurbished devices. National nonprofit Goodwill Industries has partnered with Dell Computers to offer computer recycling — of any brand and in any condition — at over 2,000 Goodwill locations throughout the United States. Where possible, Goodwill refurbishes the computers for resale to the public at discounted rates while using the computer refurbishing as job skills training in its job training centers. Goodwill locations near Hardeman County include Vernon, Texas, and Altus, Okla. More information can be found here: <https://www.goodwillcentraltexas.org/about-us/dell-reconnect>. In addition, low-cost computer devices can often be found at resale shops, pawn shops, or thrift stores. The community could partner with a resale store to help publicize the availability of low-cost devices.

Action 3 – The Broadband Committee should share information with the community about all available affordability programs and low-cost internet packages to combat obstacles to internet affordability for low-income residents.

Programs are available to assist low-income residents with the cost of internet. There are two main federal programs, and ISPs often offer their own programs as well.

Lifeline is a federal program administered through the Federal Communication Commission (FCC)



Universal Service Administrative Co. that lowers the monthly cost of phone or internet services for eligible consumers. Consumers can get up to \$9.25 off the cost of phone, internet, or bundled services each month. Households qualify based on income or participation in federal or tribal assistance programs. More information can be found at <https://www.texaslifeline.org/>.

The Emergency Broadband Benefit Program (EBB) was created during the COVID-19 pandemic to help families and households that were struggling to afford internet service. On December 31, 2021, it was replaced by the Affordable Connectivity Program (ACP), which provides a \$30 a month credit toward internet coverage (\$75 a month for qualifying residents on tribal lands) and up to \$100 for the purchase of a device. Households qualify based on income or participation in federal or tribal assistance programs. To receive the connected device discount, consumers must enroll in the ACP with a participating provider that offers connected devices (check here for participating providers <https://www.fcc.gov/emergency-broadband-benefit-providers>). The internet company provides the discount. More information can be found at <https://www.fcc.gov/broadbandbenefit> and <https://acpbenefit.org/>.

Internet service providers often have low-cost options or offer subsidized programs with internet at a greatly reduced cost. The Infrastructure Investment and Jobs Act of 2021 also required ISPs that receive federal grant money to offer low-cost service to eligible low-income households.

Free or low-cost internet programs available in Hardeman County by internet service providers are:

- AT&T: Access from AT&T and ACP; more information is available at <https://www.att.com/internet/access/>
- Suddenlink Communications: ACP; more information can be found here: <https://www.suddenlink.com/affordable-connectivity-program>
- T-Mobile USA Inc.: ACP; more information at: <https://www.t-mobile.com/customers/emergency-broadband-benefit>

The Hardeman County Broadband Advisory Committee should share this information with the community on public websites, in advertising, on community billboards, on social media, as handouts in utility bills, through direct mail or notices from schools to parents, or by any other creative means to get the word out to those most in need.

Action 4 – Encourage area service providers to participate in ACP and/or offer other low-cost options. For residents to benefit from the federal Affordable Connectivity Program (ACP), providers need to sign up, and not all providers do. If providers in your area do not participate, the Hardeman County Broadband Advisory Committee should find out why, explain to them the need in the area, and to ask ISPs to either participate in the ACP or to offer other options for low-cost residents. Find out which providers participate in the ACP here: <https://acpbenefit.org/companies-near-me/>

Action 5 – Thompson Sawyer Public Library should increase its number of public computers and publicize their availability. Thompson Sawyer Public Library has three computers available for public



use. Survey results indicate that 8.6% of households use their smartphone as their only way to go online, and 15.4% of respondents who have no home internet access do not subscribe because they have no computer.

The library offers vital services for residents, including public Wi-Fi and public computers. The library has a website and a social media presence, yet 56.7% of survey respondents said that they never interact online with the library. This shows an opportunity to increase the visibility of library services and offerings. This can be achieved by updating and expanding the library's website and social media presence, and advertising its offerings throughout the community to make sure those who need the services most are aware of them.

RESPONSIBLE PARTIES:

- Hardeman Broadband Advisory Committee
- Area internet service providers

RESOURCES:

- Lifeline: <https://www.texaslifeline.org/>
- Affordable Connectivity Program (ACP): <https://acpbenefit.org/>
- ACP participating providers: <https://acpbenefit.org/companies-near-me/>

Goal 3: Ensure Hardeman County businesses have the digital literacy tools they need to succeed

Only 50% of Hardeman County businesses that participated in our survey indicated they have a website, and the majority of survey participants were infrequent users of digital communication tools and social media. However, 62.2% of Hardeman County households that answered our survey indicated that they interacted with **non-local** businesses online at least once a week, and 55.7% interacted with **local** businesses daily or at least weekly. This is a missed opportunity for Hardeman County businesses that are not active online.

Objective: Improve digital literacy for Hardeman County businesses.

Action 1 – Thompson Sawyer Public Library, or another community entity, should offer digital skills training courses to businesses. Classes in social media, web design, and online marketing should be offered to area businesses. As noted above, most survey respondents indicate that they interact online with local and non-local businesses daily or once a week, yet only 50% of local businesses surveyed indicated that they have a website. This is a great opportunity to help local businesses tap into the income potential of an online presence. The library can partner with the Chamber of Commerce or other business organizations for assistance and to encourage greater participation from area businesses. The courses can be tailored to the business community's interests.



Action 2 – Promote digital awareness and value to businesses. A 2018 study commissioned by Google, “Connecting Small Businesses in the U.S.,” found the main reason that businesses weren’t engaging online was not lack of access, but lack of understanding the value of it. According to the study, “Amongst the least digitally engaged small businesses, 40% believe that digital tools are ‘not relevant for my business’ and 38% said that ‘they are not effective for my business.’ This indicates that less digitally engaged businesses may be unaware of the benefits associated with digital tools.” To boost local business in Hardeman County, the Broadband Committee should encourage local business owners to become more digitally literate and comfortable online.

RESPONSIBLE PARTIES:

- Chamber of Commerce/economic development organizations
- Libraries
- Community college
- Broadband providers
- IT/technology organizations

RESOURCES:

- Digital Learn – Free courses to learn anything about computers: <https://www.digitallearn.org/>
- Digital Literacy Curriculum for K-12: <https://www.learning.com/easytech>
- Free Applied Digital Skills – Google for Education: <https://applieddigitalskills.withgoogle.com/>
- Live, Virtual Classes for Seniors: <https://seniorplanet.org/classes/>

BENEFITS:

1. Provides entrepreneurial support
2. Eliminates knowledge gap
3. Promotes business growth and workforce development
4. Lowers startup costs
5. Assists in accelerating business development

TIMELINE:

Digital skills training courses should be offered within three months.

Goal 4: Mitigate the impact of internet service outages

Community feedback in Hardeman County related that internet service outages lasting many hours were common and affected large segments of the population, including 911 systems, public safety, banks, and local businesses’ ability to function. Much of this is related to cuts to critical infrastructure, often due to construction or other disruptions along critical fiber lines.



This is a regional problem that affects multiple counties. A lasting solution would involve infrastructure investment to make networks less vulnerable and more redundant. Meanwhile, knowledge and resources exist to better understand the situation. Stakeholders could benefit from information sharing with their counterparts in other counties, who are dealing with the same situation and may have insights. Hardeman County should strive to better understand how construction affects outages along service routes, how non-redundant systems affect service reliability, and what can be done to mitigate the effects while pursuing larger infrastructure improvements to resolve it.

Objective: Understand infrastructure vulnerabilities to identify solutions.

Action 1 – Concerned stakeholders and critical facilities should assess their own infrastructure needs and vulnerabilities, strive to better understand critical networks, and open communication with service providers to pursue options for greater redundancy. Due to chronic service outages, essential networks should strive to be redundant. Based on the well-known and documented accounts of cuts to critical backhaul infrastructure, typically due to construction, it is essential that any vital services, public safety, health care, etc. explore additional backup services that could/would serve as cutover services when primary services experience outages. This is not simply service from a secondary provider, but service from a provider that offers an entirely different physical path. This will help restore critical services in less than an hour during primary service outages. Any entity that deems connectivity vital and mission-critical to the continuity of their services or business should consider their options and develop a plan that will allow for the mitigation of service disruptions. For example, when internet service is down, 911 service is also down. To help mitigate service disruptions for 911, the regional planning commission's 911 Emergency Communications Department recommends having a backup, 10-digit 911 roll-over number that does not use the same network as the main line, to allow calls to stay in the county during outages.

TIMELINE:

The Broadband Advisory Committee should immediately begin research to better understand the causes of chronic service outages and explore options to resolve them. The committee should plan to meet with area service providers within three months.

RESOURCES:

Cybersecurity & Infrastructure Security Agency (CISA), resource list:

<https://www.cisa.gov/emergency-communications>

10 Keys to Public Safety Network Resiliency:

https://www.cisa.gov/sites/default/files/publications/07202017_10_Keys_to_Public_Safety_Network_Resiliency_010418_FINAL508C.pdf

ESInets Help Public Safety Agencies Move to Next generation 911 (NG911), IP-based Emergency Services IP Networks enable next-generation 911 services to flourish



<https://statetechmagazine.com/article/2019/09/esinets-help-public-safety-agencies-moving-911-perfcon>

NORTEX Regional Planning Commission, 911 Emergency Communications Department
<https://nortexrpc.org/emergency-communications>

Goal 5: Identify funding opportunities for programs and projects that benefit Hardeman County using broadband and related technologies

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

Action 1 – Pursue grants that advance local community development using broadband technologies (e.g., workforce development, telehealth, digital literacy, etc.). In conjunction with the countywide Connected Engagement, Hardeman County has been allocated funding to pursue applicable grant applications. For specifics, contact your Connected Nation Broadband Solutions Manager.