ARConnect

The Arkansas State Broadband Office

The Broadband Toolkit

A Complete Organizational Guide for Arkansas' Community Leaders

broadband.arkansas.gov

Table of Contents

Introduction to Broadband

ARConnect – The Arkansas State Broadband Office

The Arkansas State Broadband Office ("ARConnect") is the official state government broadband resource for the state of Arkansas. ARConnect sits within the Arkansas Department of Commerce and is singularly tasked to lead efforts to eliminate the digital divide in Arkansas by 2028.

Created in 2019, ARConnect was established and charged with the responsibility to improve internet access in the state's most rural areas. Since its inception, the office has awarded nearly $550 million in grants through the Arkansas Rural Connect Grant Program. Beyond funding broadband infrastructure projects, the ARConnect team advises counties and municipalities on federal and state programs that focus on broadband access, affordability, and digital skills and opportunity; connect and develop relationships with internet service providers; and help foster public-private partnerships. ARConnect's goal is for Arkansas to be a leader in the South and a Top Ten state in the country in all things broadband.

Together, through the collaborative efforts of ARConnect, county, and municipal officials, we will develop and implement innovative solutions that address broadband access, affordability, and digital skills and opportunity.

ARConnect's Contributions to Broadband Expansion in Arkansas

The ARConnect Team is here to help in every way we can. We can give advice and recommendations, supply documents like this one, and connect you with other tools and resources that can help you and your local county broadband committee be successful. Most importantly, the Governor and the General Assembly have and will be allocating millions of dollars in broadband funding opportunities to help make broadband projects happen in your community, ensure their affordability, and empower our residents with the digital skills needed to take full advantage of access to high-speed internet.

What we can't do is get anything done without local leaders and partners. Successful projects and initiatives require a combination of state, county, and local stakeholders. Simply put, local leadership is a key factor in successfully navigating the three pillars of broadband: access, affordability, and digital skills and opportunity. Without you, we may not be able to get this done.

To ensure your area isn't overlooked, forming a local county broadband committee is critical. Once official collaboration begins between our office and your committee, you will be encouraged to start reaching out to local internet service providers and speaking with them regarding your needs and wants. Being well-versed in all things broadband and easy to work with is only going to help you and expand your options and make internet service providers more interested in bringing connectivity to your community. We will also want to work with you on affordability issues, digital skills training, and other initiatives your local county broadband committee feels are important.

We will have deadlines that must be upheld in 2023, so let's work together with a sense of urgency to connect the remaining unconnected, focus on affordability, and empower our residents with the digital skills, devices, and opportunities they deserve to succeed in our ever-changing digital society.

The Broadband Toolkit

This broadband toolkit is a step-by-step guide designed to explain why and how to organize a county-level broadband committee and work to address the barriers limiting broadband access, affordability, and digital skills and opportunity in your communities. The toolkit is intended for local elected officials, community leaders, and concerned residents who will work with ARConnect, their local governments, and internet service providers to achieve universal access to broadband, ensure its affordability, and work to equip our residents with the devices and digital skills needed to prosper in the 21st century economy. The state of Arkansas needs community involvement to reach our shared goal of having every location in the state connected and every resident empowered with the tools and knowledge to use the internet safely and confidently in their daily lives.

Defining Broadband Access

Broadband (broad bandwidth) is any connection that allows data to move quickly from the internet to your device or from your device to the internet. Think of it as an internet pipeline, much like a water or sewer pipeline. When it's slow, it's an *internet connection*, but not a *broadband connection*. In Arkansas, we define broadband as an internet connection with a minimum speed of 100 megabits per second download (when data loads from the internet to your computer or device) and 20 megabits per second upload (when you send something from your computer or device out to the internet). This is in stark contrast to the early days of internet access when dial-up modems provided only 28.8 kilobits per second download and even less in upload speed. A full-length movie would take more than nine days to download back in those days, when today it only takes minutes!
Today, there are many different types of connections that provide broadband speed as defined above, and the options available can be very confusing, even for someone well versed in understanding telecommunication options. There is an awful lot to understand, and there are pros and cons to each one.

- **Fiber Optic Connection** – This technology is based on glass cables that transmit data through pulses of light with connectivity that can reach blistering speeds. Each fiber is smaller than a human hair and bundled into strands that make up one cable. As a leading innovative technology of the 20th century, fiber connections have facilitated the modern development of our world. Today, fiber networks connect almost every location on earth to internet infrastructure and can support speeds and reliability that are far superior to other connection types (background information on the development of fiber cables can be found here). The one disadvantage of fiber technology is cost. Fiber-to-the-premises networks tend to be more expensive than other technologies.

- **Cable Connection** – While lacking the top-end speed and potential reliability of a fiber optic connection, a cable internet connection is one of the most common types of connections available for broadband access. This type of internet access uses the same coaxial cable

connection that providers use for broadcasting cable television signals. Historically, limitations regarding speed reliability can be a concern, as coaxial cable systems are susceptible to network congestion and slower speeds, especially during peak usage times.

- **Fixed Wireless Connection** – A fixed wireless connection is a transmission between equipment that is fixed in specific locations, usually a tower in one location and an antenna or receiver on your home or business. Fixed wireless networks still require fiber, but the fiber only travels from tower to tower, and then the signal travels wirelessly from a tower to your home or business. All fixed wireless connections require a direct line of sight, so if there are hills, trees, buildings, or other obstacles nearby, the obstacles can distort the connection. In addition, weather can negatively impact connectivity, but not to the extent experienced by traditional satellite internet connections.

- **Satellite Connection** – Satellite internet is widely available because it doesn't rely on ground-laid infrastructure like the other options discussed above. A special dish is installed on your home or business and connects with satellites in space. If you have a clear view of the southern sky, there's a pretty good chance that there's a satellite provider capable of delivering an internet connection to your home. However, there are challenges with traditional satellite services. They rely on a comparatively small number of satellites, and there's no way to speed up the "latency," or the time it takes your clicks and keystrokes to travel up to the satellite, back down to a receiving station, out to the internet, back to the receiving station, back up to the satellite, and back down to you. This type of service can be expensive, and as anyone whose satellite service has been knocked out during a thunderstorm can attest, can be unreliable in bad weather.

- **Cellular Wireless Connection** – With this connection type, your cellular carrier connects your router or hotspot to the cellular tower nearest you, just like it does with your cell phone. Speeds can vary depending on how close you are to a cellular tower but are likely to be faster than a fixed wireless connection. Download speeds can vary depending on the cellular carrier, location of access, and other factors, such as network congestion. Also, data usage and speeds can be limited or capped if you don't have a cellular plan that offers unlimited data.

  Cellular providers are also upgrading their infrastructure to provide 5G service, but we do not expect that service to reach the most rural parts of Arkansas in the foreseeable future. Even 5G wireless transmitters require a fiber optic network to connect to one another, so the work you are putting in now is helping your community gain access to future technologies like 5G in the future.

Ultimately, ARConnect is technology-neutral, but we suggest that in today's technological landscape, the technology that makes the most sense for most communities is *fiber optics*, as it is the most reliable of the currently available technologies and future-proof. *Fixed wireless* may be an option for some of the most expensive, most remote locations in Arkansas. ARConnect will continue to track advancements in broadband technology and keep you and your community up to date with the latest information.

How the Internet Works

The internet is nothing more than a global computer network for communication. Data is moved from one place to another, so that we can chat, browse, and share. A broadband connection gives you access to the internet by using the transmission methods described earlier (fiber optics, cable, fixed wireless, etc.).

All data is transmitted using a method called packet switching. What packet switching does is send your data in separate pieces—each tagged with your intended destination—in the quickest and most efficient method available. Once all the pieces reach their target, they are reassembled into—voila!—your email (for example). In contrast, if you maintained a permanent connection to the intended destination, or if your email traveled as a whole instead of in pieces, an entire portion of the network would be blocked every time you sent a message. With packet switching, many people can use the internet at the same time.

Millions upon millions of servers storing information are what make up the internet. There are file servers, mail servers, and web servers. The internet is also made up of routers, which make connections between different systems. For instance, at work or school, your device along with several other computers are connected to one router—which is the single point of entry to the internet for your location.

The Broadband Highway

The easiest way to imagine the global broadband network is to think about the interstates, highways, and city street systems. Connectivity to the internet is maintained by private sector companies, broken out into three different tiers with different types of delivery models throughout the entire global network.

To start, these companies can be known as Tier 1, Tier 2, or Tier 3 carriers. Tier 1 carriers built the backbone of the internet and are the interstate highways. They operate and maintain infrastructure across the country and even utilize transoceanic cables to share data across the world! Tier 1 carriers basically own enough of the physical network lines to carry most of the traffic themselves, and they negotiate with other Tier 1 carriers for free access to their networks. Examples of Tier 1 carriers include AT&T, Lumen, Sprint and Verizon.

Tier 2 carriers function as the highways of the network, and although they have collaborative relationships with Tier 1 carriers, they must purchase access from Tier 1 carriers to gain full entry into the internet. However, just because a provider is a Tier 2 carrier doesn't mean that their offerings are any less effective. While a Tier 1 carrier may focus on larger clients, this leaves Tier 2 carriers the ability to focus on regional consumers and commercial clients. Examples of Tier 2 carriers include Comcast/Xfinity, Altice, Cox Communications, and the Diamond State Network.

Tier 3 carriers function as the city street systems and must purchase access from Tier 1, or even Tier 2 carriers, for entry into the internet. These carriers are usually last-mile providers, meaning that they connect consumers to the internet through other carriers' connections. A great example of Tier 3 carriers involves the cellular wireless industry, where smaller companies like Cricket Wireless, Boost

Mobile, and TracFone must negotiate with larger cellular wireless providers such as AT&T or Verizon for customer access to their networks.

Similar to how tiers of carriers are structured, you may also have heard of descriptors such as "backbone," "middle-mile," and "last-mile." Tier 1 providers often play a large role as backbone providers, such as providing transmission lines across the country (and even through the ocean). Middle-mile often refers to the network connection between the backbone transmission lines and local communities. In a rural area, the middle-mile network would likely connect a town's local network to a larger metropolitan area where it interconnects with major carriers. The final leg of connection, or last-mile, is between the carrier and the customer's home or business.

Broadband's Importance Today

Like railways in the 19th century and electricity in the 20th century, broadband access today has become a critical piece of infrastructure, igniting economic growth and competitiveness, contributing to improved outcomes in healthcare, enhancing agricultural output, and advancing the educational experience of our children. In the 21st century, the need for broadband access is a given for all Arkansans, who rely on broadband in every aspect of daily life.

Arkansans rely on broadband to search and apply for new career opportunities. Our state's families and children rely upon broadband for virtual education. The older and sicker among us are increasingly reliant on broadband to schedule telehealth visits and see medical specialists. Farmers around the state rely on broadband to take advantage of the latest innovations in agricultural technology to increase crop yields.

It has been proven that children in households with broadband access have better educational and career success—even considering all other factors. The advent of online education has only made this more the case, and some aspects of online schooling, such as online homework and virtual classes for inclement weather, were either already here or are now here to stay. The children in your community deserve just as good of a shot at success as any other children around the state.

Broadband infrastructure is essential to local economies. Businesses need high-speed access to the internet, and today that often means access at their employees' homes, as well as at the workplace. As our economy continues to evolve, many jobs and opportunities will be available via remote work and strong internet connections. Broadband connectivity will offer the potential for communities to attract and retain jobs and workers from elsewhere, growing the local economy.

Participation in modern American civic, economic, and social life requires that all of us have access to reliable, affordable high-speed internet and the digital skills needed to flourish in the 21st century economy.

Deciding What is Best for the Community

ARConnect wants you and your county broadband committee to decide what is best for your community. You know your neighbors, existing barriers, possible solutions, and what may work for your community better than Washington, D.C. or Little Rock. Although our office will play the authoritative role in designing the structure of the state's infrastructure plan and digital opportunity programming, we will collaborate with you on the state's plans and assist you in being successful in the efforts you choose to undertake, whether it's broadband access, affordability, and/or digital skills and opportunity.

Does my Community Need a Consultant?

ARConnect will never tell a local community that they should or should not hire a consultant to assist in your efforts. You know you best! If this is something that you might consider, it's important that you have a very clear idea of what you would want your consultant to do. As with any project, due diligence is important. Some key things to think about when possibly considering a consultant are:

1. Can we get what we need with some legwork on our part and on the part of those in our community?
2. Have we fully explored the support available from ARConnect?
3. What are our specific needs? Do we need legal, technical, or financial advice?
4. Do the internet service providers that already serve—or could serve—my area have the ability to prepare to bid for our area when the state launches another infrastructure grant round? *They may already know what it would take to expand but haven't because of cost concerns*.
5. Does a potential consultant have administrative experience working in the broadband space? Has the consultant worked with other localities before? What type of references can they provide?
6. Does this consultant have the technical experience to assist with all that you may need? Do they have a strong understanding of technology and broadband infrastructure, affordability initiatives, and other digital skills and opportunity programming?

Ultimately, ARConnect wants to help your county get as much done as possible for as little expense as possible. Consultants can be helpful in specific situations, but it is important to perform proper due diligence before engaging with any third parties.

Our Goals for this Toolkit

The rest of this toolkit includes a brief section to help you make the case to your neighbors and colleagues that this is something you absolutely need to do as a community.

Feel free to contact ARConnect via email at broadband@arkansas.gov or by calling (501) 682-7306 with any questions or concerns you may have about getting organized. Arkansas needs you and your community engaged and involved so that we can reach our goals of universal broadband coverage, ensuring affordability, and equipping our residents with the digital skills, devices, and opportunities they need to succeed in the 21st century economy.

The Benefits of Broadband Access

1. Economic Benefits

Broadband access is a requirement for doing business in the 21st century digital economy, and the lack of broadband access in a community usually means the absence of jobs. Almost every aspect of running a modern business is done online, such as advertising, bookkeeping, processing credit card payments, restocking inventory, selling directly to customers, and recently, work itself. Even if the business location has access to the internet, companies now need their employees to have access at home for teleworking purposes and a better quality of life. For under-connected communities that have seen residents leave and industries close, broadband access is a necessity for economic stability and growth. With remote work becoming more common in general, it can even attract workers who are seeking to escape from more expensive regions of the country to Arkansas' more affordable and business friendly climate.

2. Social Benefits

The social benefits of broadband access for a community are wide-reaching and comprehensive.

Communities are safer: With increased connectivity, public safety officials have faster and more dependable communication networks, leading to faster response times.

Communities are healthier: Telemedicine, or healthcare delivered via videoconferencing, will bring primary and preventative care to remote and underserved patients, bringing down future costs and leading to better health outcomes.

Communities are wealthier: The moment a home is connected with broadband access, the value of that home is estimated to increase 3 – 8 percent, on average. The amount of wealth that will be created for communities by expanding broadband access will far outweigh the initial capital costs of bringing it there.

3. Educational Benefits

Arkansas is a leader in the country when it comes to broadband access for K-12 students in the classroom, but we know that to succeed, students need broadband access at home as well. Studies consistently show that children in households without broadband access have worse post-secondary outcomes. School districts across the state have developed in-person and virtual online educational models, and students are now doing more homework online. Project research, submitting schoolwork, and applying for college is now done online more than ever, and families seeking out free public Wi-Fi connections to complete these tasks are at a disadvantage. Schools are utilizing public and private funding to provide devices for students to take home, but these devices are almost unusable without internet access. Bringing universal broadband access to all our students will improve educational performance and provide enhanced career opportunities.

4. Agricultural Benefits

Arkansas' economy is heavily reliant on its agricultural output, and farmers are demanding better broadband access. Farmers are using technology to measure their inputs and outputs, creating opportunities for smarter, more efficient resource management. The adoption of precision agriculture technology has powerful benefits, both for famers' profitability and for their environmental impact. Precision agriculture, for example, optimizes fertilizer application through reduced overlap and variable rates of input. Precision agriculture has improved fertilizer placement efficiency by an estimated 7 percent and has the potential to further improve an additional 14 percent with more widespread adoption. This not only saves the farmer money on fertilizer expenses; it also improves water and soil quality. Broadband access can make a farm sustainable not only from year to year, but from generation to generation.

Challenges to Bringing Broadband Access to Less Dense, Rural, and Unserved Areas

1. The Density Issue

The real reason there isn't already broadband access everywhere is that it basically costs the same amount to either string fiber or broadcast fixed wireless signals everywhere, but sometimes when a company strings a mile of fiber or broadcasts from a tower, they're able to get hundreds of customers. Other times, it's only a dozen.

For a variety of historical reasons, internet access is not considered a utility. Utilities can automatically charge all customers in a service territory to recoup infrastructure and maintenance costs because they're required to serve all of those customers. Internet companies aren't structured that way. Prior to recent federal and state grant programs, American private sector internet companies used private capital to build infrastructure and took the risk of not being able to recover their costs.

In more rural areas, where there may be only a handful of potential customers, the risk of not being able to recover costs becomes a certainty – that's why federal and state grant programs were enacted over the last several years. These funding sources, along with any potential local funding and resources from partner internet service providers can come together to solve the infrastructure problem.

2. Engaging with Potential Partners

Communities must put in the effort to seek out and engage with potential internet service providers, especially as the state prepares to open additional infrastructure grant rounds as soon as late 2023. Sometimes, only a single internet service provider may be interested in building broadband access in your community. Other times, multiple providers may be interested. In some cases, you may find it difficult to engage with any provider at all. That's one way in which ARConnect can assist. If your committee needs assistance connecting with potential internet service providers, let us know! We will work with you to source potential providers for your community and collaboratively engage with them. Engaging with potential internet service providers early in the process will be helpful in generating interest in your county and its communities so that when the state opens its next infrastructure grant round, internet service providers are excited about applying for your county.

3. Getting Public Support

Every community wants better access to the internet, so gathering public support for a broadband buildout should be one of the easier steps in this process. However, remember that "broadband" is bigger than just infrastructure. It also encompasses affordability and digital skills and opportunity. Rallying your community around infrastructure may be easy but getting their buy-in on affordability

and digital skills programming may be a more difficult task. ARConnect will be there to support you. Whatever initiatives your local county broadband committee wants to focus on or prioritize, we will assist to make you successful.

4. Securing Funding Support, if Needed

As priorities are selected and public support is gained, it may be necessary to look for potential funding sources for your initiatives. However, ARConnect will work with you to help organize any initiative you choose, for as little cost as possible, if any. Can the local library, school district, or community college assist with starting up a digital skills class? Can local churches assist with spreading the word about the Affordable Connectivity Program?

Should your efforts require funding, we'll work with you to make connections with interested philanthropies and nonprofit organizations, investors, and others.

5. Becoming a Connected County

Building out the last broadband access is only one piece of the pie! While foundational, access is not the only issue for us to resolve. Your county and ARConnect will continue to work together to ensure the affordability of broadband access and empower your residents with the digital skills needed to prosper in the 21st century digital economy. All residents in your county who desire broadband access should have the means to receive service and understand how it can benefit them for the better.

A Step-by-Step Guide to Organizing the County Broadband Committee + Action Items

The information presented below provides an outline of the steps local leaders can take to organize themselves, form a county broadband committee, and prepare to focus on broadband access, affordability, and digital skills and opportunity.

Phase 1 – Plan

Identify County Broadband Committee Leadership – Appoint Your Digital Navigator

- **Purpose**: It's critical to have local leadership support for planning and initiatives relating to broadband access, affordability, and digital skills. Collectively, our state needs to eliminate the digital divide by 2028, and your county is no exception! Leaders should understand how sweat equity in the pillars of broadband will positively impact the longevity of their community. The key to forming a successful committee is identifying a local leader who believes in and can clearly articulate why the community wants and needs better broadband and can help educate elected officials and fellow residents of the value of broadband. It's imperative to ensure the presence of a broadband champion within the local county broadband committee.
- **Task**: Local leadership should identify and encourage a passionate elected official or resident to be the main point of contact and oversee planning efforts and act as a Digital Navigator to the ARConnect team.

Identify County Broadband Committee Members

- **Purpose**: This is one of the most important factors in creating a robust, informed, energetic county broadband committee. These folks won't be working on broadband full-time, or even most of their time, but they're supposed to be willing to give a good faith effort to be a contributing member of the team and leverage their knowledge and expertise of their personal experiences and in their areas of work. The county broadband committee will oversee community engagement and planning activities associated with development of the county's broadband priorities, and work collaboratively with ARConnect. The county broadband committee will also collaborate with local elected officials involved in broadband-related policies (internal policies, zoning ordinances, county or municipal codes, permitting, etc.)
- **Task 1**: Identify county broadband committee members. It is recommended that the committee should include representation from, but not necessarily be limited to:
    - Local elected officials (also including state representatives and senators)
    - Congressional staff
    - Local government administration (county and/or municipality)
    - Local government GIS employees
    - Economic development professionals
    - Planning commission staff
    - Public safety officers
    - Education professionals (K-12 and post-secondary)
    - Librarians
    - Healthcare professionals
    - Social and civic organizations

    - Agriculture representatives
    - Financial institutions
    - Utilities
    - Chambers of Commerce
    - Communities of faith
    - Nonprofits
    - Philanthropies
    - Passionate residents
    - Any other stakeholder you select!
- **Task 2**: Establish a meeting schedule. A schedule for periodic meetings will maintain momentum and help keep the process on track.

Determine Potential Resources

- **Purpose**: Every county and municipality need to invest in broadband, whether it be in terms of time, money, or other resources.
- **Task**: The county broadband committee should identify if any available funds exist at the county and/or municipal level to be used as potential matching funds for infrastructure grants and/or other broadband needs, including affordability outreach and/or digital skills training, devices, etc. Most broadband infrastructure grants, including the Arkansas Rural Connect grant program, will require some level of matching funds and providers will be required to supply a minimum match. Additional contributions (beyond the required minimum match) from local governments, philanthropies, nonprofits, or even investors can make a broadband infrastructure grant application more appealing and competitive in the scoring process. Local funding resources could also be used to kick-start affordability outreach and engagement initiatives and/or digital skills training classes, the purchase of devices, and other broadband initiatives the county broadband committee may want to try.

Establish Relationships and Evaluate Partnerships

- **Purpose**: Establishing relationships and evaluating partnerships will be a big step in thinking through what kind of broadband initiatives you may want to support. Opening lines of communication and establishing relationships with local and prospective internet services providers, libraries, school systems, churches, civic groups, and nonprofits will enable you to assess what other funding sources and non-monetary resources exist and that your county may have to offer. Remember, with the new infrastructure grant program that ARConnect will administer late this year and next year, you may not necessarily need to produce additional matching funds for infrastructure grants, but you may want to find funding and resources to promote and implement affordability program outreach and digital skills training classes.
    - **Task 1**: Identify all of the county's internet service providers and inform them that the county has formed a broadband committee. Tell them that you would like to setup a time to chat about their coverage areas, services offered, and any plans they may have to expand their service footprint. You may be surprised by what you hear! Are there any perceived local barriers stopping them from expanding? Also, find out if they participate in the Affordable Connectivity Program (ACP) and if they offer any digital skills training classes or have any device programs. If not, have they considered it? Would they be willing to work

with your committee and participate in the ACP and/or create digital skills training?

- **Task 2**: Identify all libraries, school systems, churches, civic groups, and nonprofits in your county and inform them that the county has formed a broadband committee. Tell them that you would like to setup a time to chat. Do any of these organizations have any digital opportunity plans that they are either actively working on or currently implementing? If so, how could the broadband committee help to support them or expand their work? If not, would they be willing to work with the committee and help in affordability outreach campaigns or host digital skills training classes? Could they help to start a device program?

Develop a Communications Plan

- **Purpose**: Maintaining open communication with stakeholders and the public throughout the course of your efforts is key to its success. Acknowledge from the outset that projects may likely change significantly over time depending upon what works and what doesn't, and be sure to adjust community expectations accordingly should things change over time. Always be transparent!
- **Task**: The county broadband committee should begin periodic communications to inform the public of the broadband committee's intentions to seek universal broadband access, affordability outreach programs, and digital skills training. This can be done through periodic public meetings at the discretion of the committee or any other method you choose to share information, such as newsletters, social media posts, letters to the editor, etc.

Develop a Preliminary List of Broadband Priorities

- **Purpose**: Each county should establish a preliminary list of broadband priorities that will move you from where you are today to wherever you would like to go in the future. These priorities can either be localized, where they are more tailor-made for each municipality, or established at the county level, depending upon county and municipal capacity. Sometimes, collaborating at the county level can be better, as larger projects can save money, connect more people, and typically can involve more organizations.
- **Task**: Identify if your county and/or any municipality has completed any type of broadband plan in the past. If so, this can be a starting point for creating an updated plan and list of priorities geared towards not only infrastructure needs, but also affordability outreach and digital skills training. Review any prior plans to determine if they are outdated or unusable. If there are not any existing plans, create a new list of broadband priorities for your community. Although ARConnect will stress access, affordability, and digital skills, do not be afraid to be creative and come up with new priorities, new ideas, and new solutions! Remember, ARConnect is here to guide you and assist you in being successful.

Be Prepared to Help Correct the State Broadband Map

- **Purpose**: One of the most important aspects of the access pillar of broadband for a county broadband committee is understanding which locations in your county have broadband access and which locations do not, according to federal and state mapping. You can't ensure your under-connected neighbors and businesses get broadband access

if you are unaware of how the federal and state broadband maps are showing broadband access in your county. It's important to note that no map will ever be 100% accurate, but we must try our best to get it right! The state will release a new state broadband map later this year showing what coverage is or is not available at every single location in the state. As part of that process, and before any new infrastructure grant rounds are opened, a challenge process will take place that will allow internet service providers, county broadband committees, and residents to review the map and make sure it is correct. If there are errors in the map, ISPs, county broadband committees, and residents will be able to challenge the map so ARConnect can get the map corrected. To prepare for the review and challenge process that will take place later this year, county broadband committees should review the existing federal broadband map and examine listed coverage in the county. The existing federal broadband map will function as the base layer in the new state broadband map that will be released later this year.

- **Task**: Review the new federal broadband map and examine listed coverage in the county. Remember, this new federal map, and the map the state will release later this year, are based on a location-by-location mapping system. You, better than bureaucrats in Washington, D.C. or even Little Rock, know your community best and know where broadband coverage gaps exist. Later this year, the mapping challenge process will be important, so take your time, review the map, and take note of where you think the federal map may be incorrect. ARConnect can assist you in learning how to use the map and for what you should be looking.

Identify Vertical Assets

- **Purpose**: Vertical assets can be important pieces of infrastructure for broadband expansion. Wireline, fixed wireless, and cellular providers may have a need for local vertical assets.
- **Task**: Identify the location of known vertical assets and whether any space is available. These include existing towers, silos, water tanks, buildings, etc. If it's tall and equipment can be affixed to it, it's a vertical asset. Get creative!

Identify Barriers to Broadband Infrastructure Completion

- **Purpose**: County and municipal governments play a critical role in broadband access construction through zoning, permitting, and other regulations. It is important that governmental entities protect the public interest but also embrace policies and processes that can reduce barriers to broadband construction. Anything a community can offer a potential partner in the form of incentives (rights-of-way, pole attachments, easements, facilities, waived fees, etc.) can shorten deployment time, reduce costs, and make a project more attractive to potential providers. This is a great opportunity to think about ways to make your county more attractive to ISPs so there is more competition when it is time for ISPs to submit applications for your county.
- **Task**: Identify and map local assets or actions to help lower the cost of construction. Be sure to note any assets that fall within an unserved or underserved area. Below is a list of assets that could be considered.
    - Space on vertical assets, such as existing towers, silos, water tanks, buildings, etc.

        - Waive, reduce, or suspend leases on municipality-owned towers for a potential provider.
    - Share space for towers, network equipment, or poles.
        - Sharing space at fire stations/rescue buildings for small towers or poles.
        - Space on, or in, municipality-owned property for tower construction, location of points of presence, networking equipment, etc.
    - Municipality-owned land that could be used for tower construction or other facilities.
    - Municipality-owned telecommunication networks, such as a fiber-optic network connecting government facilities.
    - Waive, reduce, or defer local fees for permitting and construction of any broadband infrastructure deployed by an internet service provider.
    - Assist with project marketing and/or public relations, leveraging public meeting space, local media relationships, direct mailings to constituents, and social media.
    - Provide a single point of contact for any permitting for broadband infrastructure construction by an internet service provider.
        - Leverage ongoing or pending capital projects, such as water, road construction, Main Street revitalization, new subdivisions, fiber builds, etc.
            - Take advantage of "Dig Once" opportunities to coordinate the installation of underground fiber and/or conduit whenever the ground is open for building or renovating roads, utility infrastructure, energy distribution channels, sidewalk repair, etc. "Dig Once" opportunities can significantly reduce costs and shorten deployment time for an internet service provider.

Phase 2 – Execute

Work with Partners on Affordability Outreach and Digital Skills Training

- **Purpose**: At this point, you've met with potential internet service providers, as well as libraries, school systems, churches, civic groups, and nonprofits. You've also determined if they have any active digital opportunity plans (affordability outreach, digital skills, etc.) or are willing to partner with the county broadband committee to start any programs. If they have active programs or are willing to partner, great! Eliminating the digital divide in your county doesn't happen on its own. The county broadband committee and partners must work together to figure out what is needed to be successful.
- **Task**: Leveraging the resources of the county and the municipalities, as well your partners, establish affordability outreach initiatives and digital skills programming. There may be other initiatives and programs that the county broadband committee or your partners may want to try that are not directly related to affordability and digital skills, and that is acceptable as well. ARConnect will be available to you should you want guidance, recommendations, or introductions to other organizations around the country that have been successful in initiatives that are similar to your priorities and programs.

Conclusion

Remember, this is just the first step. ARConnect hopes this toolkit gives you the guidance you need to form an active and energetic county broadband committee and embark on this essential journey. There is a lot of work for all of us to do, and we can be successful and eliminate the digital divide in your county if we work together. Your dedication to not only bringing needed broadband access to your community, but also working on affordability and digital skills, will be appreciated by generations to come. You are starting a project that will be as important as those prior that have provided water, electricity, and telephone service to your fellow Arkansans! It's time to get to work and make history while improving the lives of your friends, families, and neighbors!