



BROADBAND PLAYBOOK

Resources and tools to connect all Kansans.

Why does high-speed internet matter in your community?

With no internet at home, students can face a nightly challenge when tackling homework assignments.

Residing down a remote dirt road, a 15-minute drive to Liberal in rural western Kansas, a family's residence had no useful internet options.

"For the first couple of years when I was in high school, we didn't have the internet. There weren't many options."

Sometimes the student resorted to using the hotspot on their phone and even invested in their own hotspot, only to find it was *"barely enough to do my homework."* Sometimes it required a drive into town to secure a decent connection.

Director's Note

COMMUNITY PARTNERS

Neighbors and friends,

As we navigate an increasingly digital world, it is evident that reliable broadband access and digital skills are necessary for us all to fully engage in society. The Kansas Office of Broadband Development has been allocated \$451.7 million in federal funds to close the digital divide in Kansas.

We need your help to ensure these funds are used to best serve the needs of your community. As your State Broadband Director, I am writing to ask for your active participation in broadband planning activities. A collective effort is critical as we make funding decisions.

Community engagement makes up nearly 10% of grant application scoring. Now is your chance to have your voice heard. Together, we can build a digital future that ensures no one in your community is left behind. If you have any questions or need assistance, please feel free to reach out. Thank you for your dedication to advancing broadband access in your community.

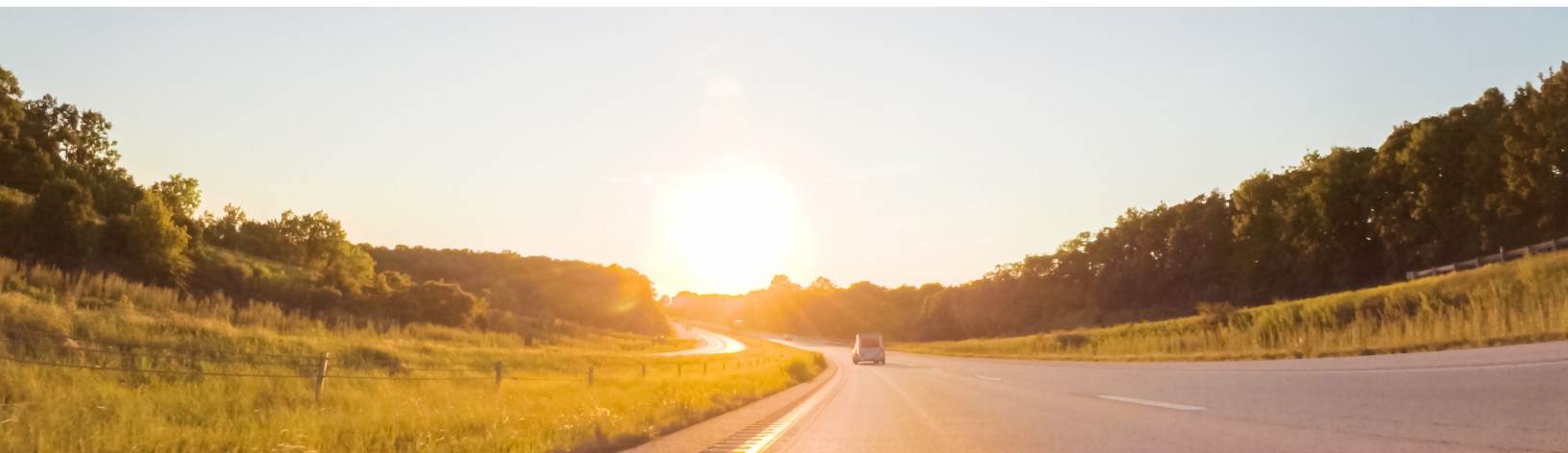


Jade Piro de Carvalho
Director
Kansas Office of Broadband
Kansas Department of Commerce



Table of Contents

Note to Community Leadership.....	01
Broadband Basics.....	02
Kansas State Broadband Map.....	19
BEAD Program Overview.....	21
Local and Tribal Coordination.....	22
Kansas Broadband Ready Communities.....	23
Information on Permitting	25
Broadband Stakeholders.....	34
Public Broadband Models and Internet Service Provider Information.....	35
Kansas Internet Service Provider List	36
Questions to Ask Broadband Providers.....	42
Digital Equity Overview.....	49
Broadband Adoption.....	51
Community Engagement.....	56
County Level Broadband Mapping.....	72
BEAD Community Action Plan.....	73
BEAD Community Checklist.....	74



Community Leadership

High-speed internet matters for your community. It helps government agencies improve quality, lower costs and increase transparency by improving internal operations and making it easier for residents to interact with them online. High-speed internet allows teleworkers opportunities to more readily live and work in locations of their own choosing, without having to be within commuting distance of a corporate center or another base location. High-speed internet networks enhance educational experiences by providing students and teachers with access to an array of resources and the opportunity for distance learning.

High-speed internet is an important tool to address the needs of people with disabilities. Through various broadband-based applications and supporting technologies, people with disabilities have access to a new array of smart devices, improving quality of life. High-speed internet enables local communities, regions and nations to develop, attract, retain and expand job-creating businesses and institutions.

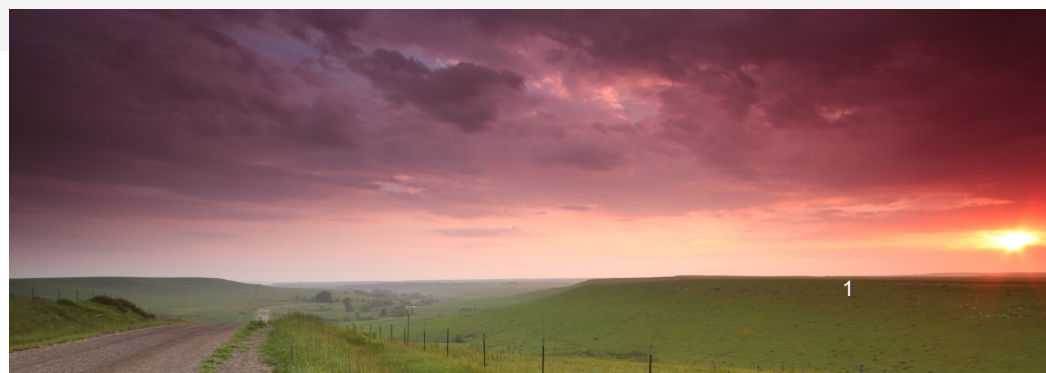
High-speed internet enables communities to come together to take collective action and generate solutions to common issues such as voting, registering to vote, volunteerism/community service, advocacy and activism, as well as engaging in city wide projects. High-speed internet enables buildings to communicate with utilities and the energy market. Smart buildings and smart grids hold great promise for greater efficiencies in energy consumption.

High-speed internet makes remote access to clinical services possible and cost-effective. It also allows physicians to monitor their patients through innovative home health devices. High-speed internet is essential to enjoy 21st-century entertainment. Streaming video, online gaming and connecting with friends and relatives via social media are only possible because of broadband.

Wireless broadband is becoming indispensable to the interoperability of police, fire, health and other government entities in both day-to-day and crisis situations.

In short, high-speed internet allows your community members to fully participate in today's democracy, economy, and society. This playbook is intended to assist you in your community broadband efforts, and KOBDD has included a BEAD Community Checklist at the end to help complete those actions.

This playbook is meant to provide ideas and suggestions to readers as they consider how best to participate in the BEAD opportunity and should not be considered legal advice. It is not intended, nor should it be used, as a substitute for specific legal advice that would be provided by legal counsel. By virtue of providing this information, The Kansas Office of Broadband Development is neither providing legal advice nor acting as counsel.



Broadband Basics: How it Works, Why It's Important, and What Comes Next

Answers to baseline questions about internet infrastructure and policy

FACT SHEET

August 18, 2023

Read time: 9 min

Projects: [Broadband Access](#)



Composite image showing the concept of a modern city's communication network

Weiquan Lin/Getty Images

Overview

Reliable high-speed broadband is essential to life in the U.S. today. With historic federal investments now available, states are working to expand access to high-speed internet.

Broadband Basics covers network components, technologies, infrastructure, broadband policy, and barriers to access.

Anatomy of the Internet

To understand broadband policy, infrastructure, and technologies, it's important first to understand [how the internet works](#).

The internet is not, as the old joke goes, a series of tubes. It's a complex set of interconnected networks—each owned and run by different **internet service providers (ISPs)**—through which data travels.

But not all networks are created equal. Networks that enable high-speed internet, for example, are known as broadband.

A broadband network is made of **three main components**.

- **The backbone:** Large fiber optic pipes, often buried deep underground, crossing state and national boundaries, that are the main data routes on the internet and the primary path for internet traffic between and within countries.
- **The middle mile (aka “backhaul”):** The part of a broadband network that connects the backbone to the last mile.
- **The last mile:** The segment of a broadband network that connects a local internet service provider to a customer, such as via a cable line to the home.

All About ISPs

ISPs can be municipal utilities, electric and telephone cooperatives, or private businesses, such as cable or telephone companies.

They fall into **three tiers** based on how they transport and exchange data among networks, their geographic reach, and whether they pay for “transit” on—meaning to use—other providers' networks.

Tier 1: Large ISPs that own, operate, and maintain infrastructure, including the internet backbone.

- **Reach:** Global.
- **Costs:** Tier 1 ISPs coordinate with each other to exchange traffic at no cost. After all, since they all carry roughly the same amount of data on each of their networks, the costs they incur—and the fees they could charge one another—for exchanging data across networks are effectively the same.

- **Examples:** AT&T, Deutsche Telekom, Lumen (CenturyLink), Verizon, and Zayo.

Tier 2: Typically, large cable providers and telecommunications companies that exchange data over their networks but must buy transit from Tier 1 ISPs to reach other parts of the internet.

- **Reach:** Regional.
- **Costs:** Generally, Tier 2 ISPs exchange data for free with other providers in some parts of their networks, but purchase transit services, which allow the ISPs to move user data across another provider's network.
- **Examples:** Comcast, Cox, Frontier, and TDS.

Tier 3: Usually last-mile service providers or those that offer only direct connections to customers.

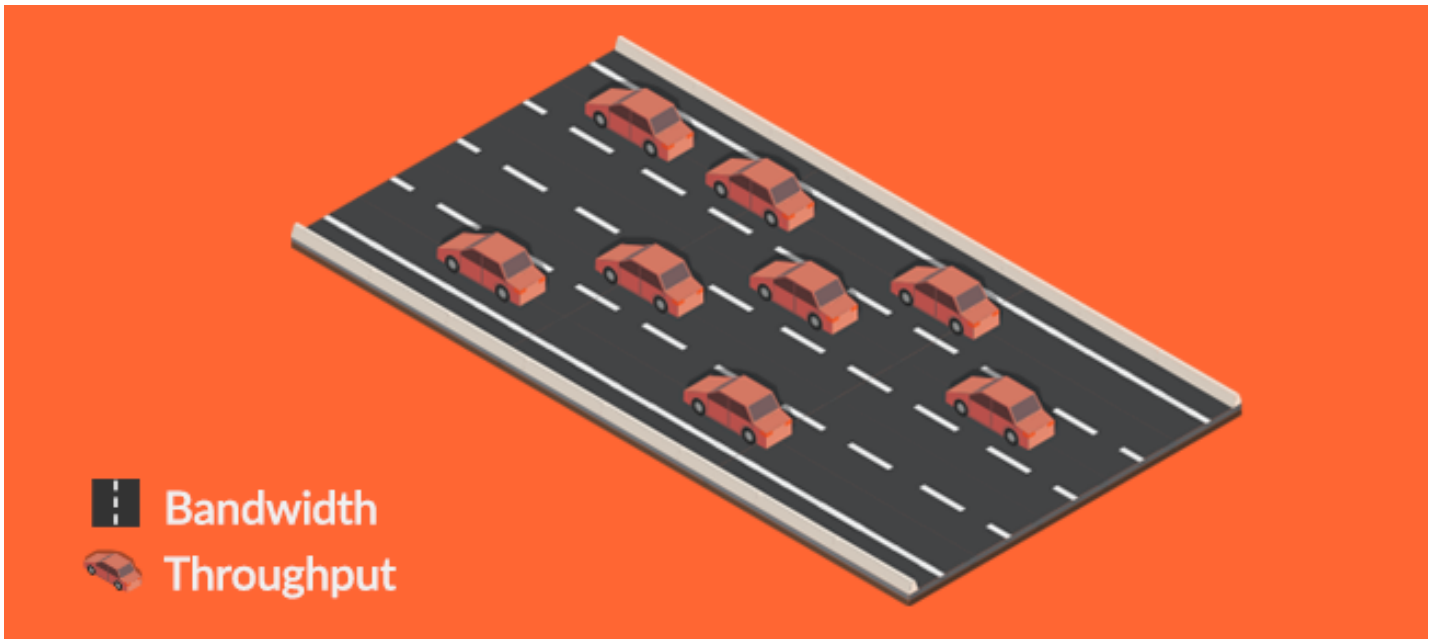
- **Reach:** Local.
- **Costs:** Tier 3 ISPs must buy access to the broader internet, either through direct contracts with Tier 1 providers or by buying services from Tier 2 providers that include connections to Tier 1 networks.
- **Examples:** All Points Broadband and Ruralband.

Data exchanges across networks occur at **internet exchange points (IXPs)**—typically large buildings where multiple carriers house equipment to link their networks. The data is transferred using **network switches**, which operate much like railroad switches, to efficiently move data from one network to another along the most direct route.

How do broadband networks affect user experience?

The slowest link in this system—usually the last mile—determines how quickly content loads on your screen. [Two factors determine how slow the slowest link is:](#)

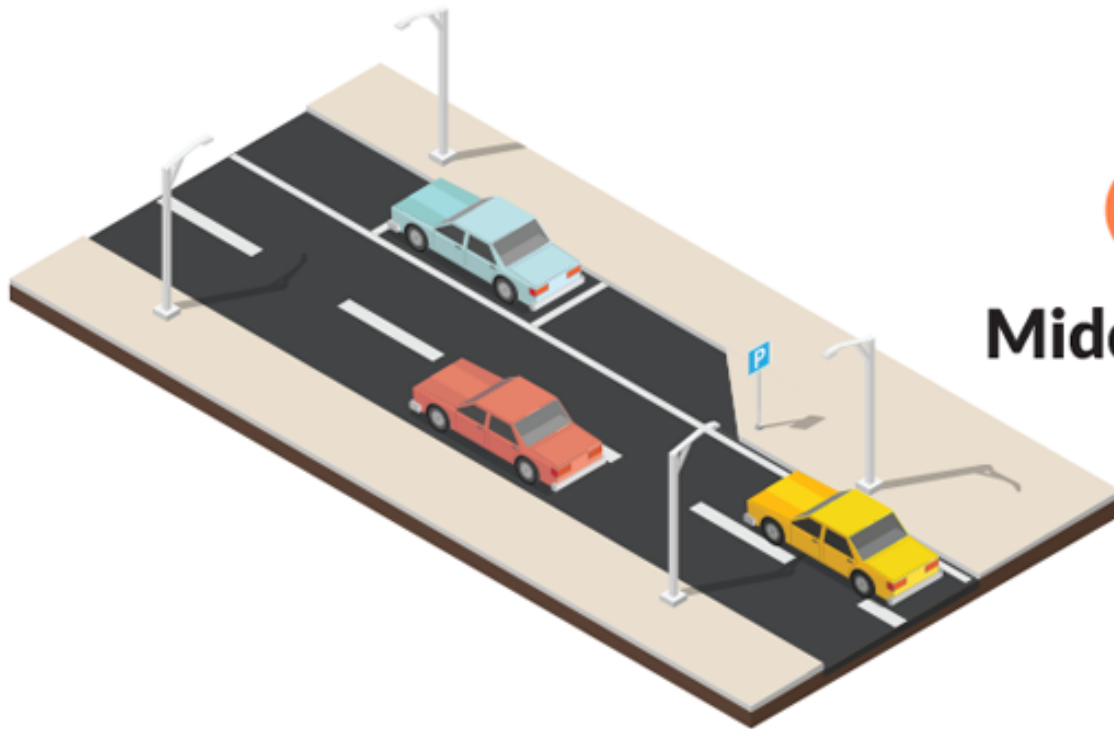
- **Bandwidth:** The capability of telecommunications networks to transmit data and signals, measured in bits per second (bps).
- **Throughput:** The amount of data that can pass through a communications system. Throughput is a function of bandwidth: the greater the bandwidth, the greater the throughput.



Think of the relationship between these two metrics as a road. Bandwidth is the number of lanes, and throughput is the amount of traffic. The wider the road, the more traffic it can carry at full speed before becoming congested and slowing down.



Remember the backbone? It's like an interstate, offering high bandwidth.



2

Middle mile

And the middle mile might be a state highway.

3

Last mile



The last mile is more like a neighborhood street. It's the narrowest stretch, and therefore the one most likely to be congested.



4

Line extension

Some individual homes may require a **line extension**—a connection to existing wired broadband infrastructure along the road or to a neighborhood fiber node. This final segment is like a home's driveway, which links the house to the network of roads.



Even though the last mile is the most likely to experience slowdowns, any part of the network can get congested, leading to endless spinning wheels and buffering.

How do you access the internet?

The content on computers, phones, tablets, and other devices is largely generated by edge providers—large retail, social media, technology, or video streaming companies (such as Google, Netflix, and Facebook) or individuals who offer content, such as blogs or websites.

Their data reaches users via content delivery networks (CDNs), systems of servers typically owned by large technology firms such as Amazon CloudFront and Akamai. CDNs function as data warehouses, storing copies of web content in various locations to shorten the distance between users and the content they want. This arrangement cuts the time it takes for data to load after the user clicks a link.

Let's Connect

Understanding the [technologies that allow Americans to access the internet](#) is crucial to effective broadband policy.

Internet service providers (ISPs) rely on a variety of **technologies to connect users to the internet**:

- Wireline connections.
- Fixed wireless connections.
- Satellite connections.

These technologies vary in terms of **speed**—the rate at which they transmit data—and in terms of **latency**, the amount of time it takes data to travel to its destination and back along the network.

Wireline connections

Wireline connections are the most common type of home broadband connection in the U.S.

They involve **three main types of physical lines** running to a structure.

Cable internet service is provided by cable television companies over a hybrid network, meaning it uses two main types of wires:

- Fiber lines go to neighborhood nodes.
- Coaxial cables transmit data from the nodes to residences and businesses.
- Primarily available in urban and suburban areas

Digital subscriber line (DSL) service uses a two-wire copper telephone line:

- Allows consumers to simultaneously use the internet and a landline telephone.
- Slowed by distance—the farther a signal must travel, the slower it will be.
- The oldest internet service technology in the U.S.—losing customers due to slow speeds.

Fiber to the home (FTTH), aka fiber to the premises (FTTP), relies on fiber optic cables:

- Fastest speeds with low latencies.
- More future-proof than the other technologies and can be continually upgraded for faster service.
- Federal and many state broadband programs prioritize fiber investments.

Federal investments made through major legislation in 2021 and 2022 prioritize fiber infrastructure projects, and in response leading ISPs committed to invest \$60 billion over three years starting in 2022 to build out FTTH.

Wireless connections

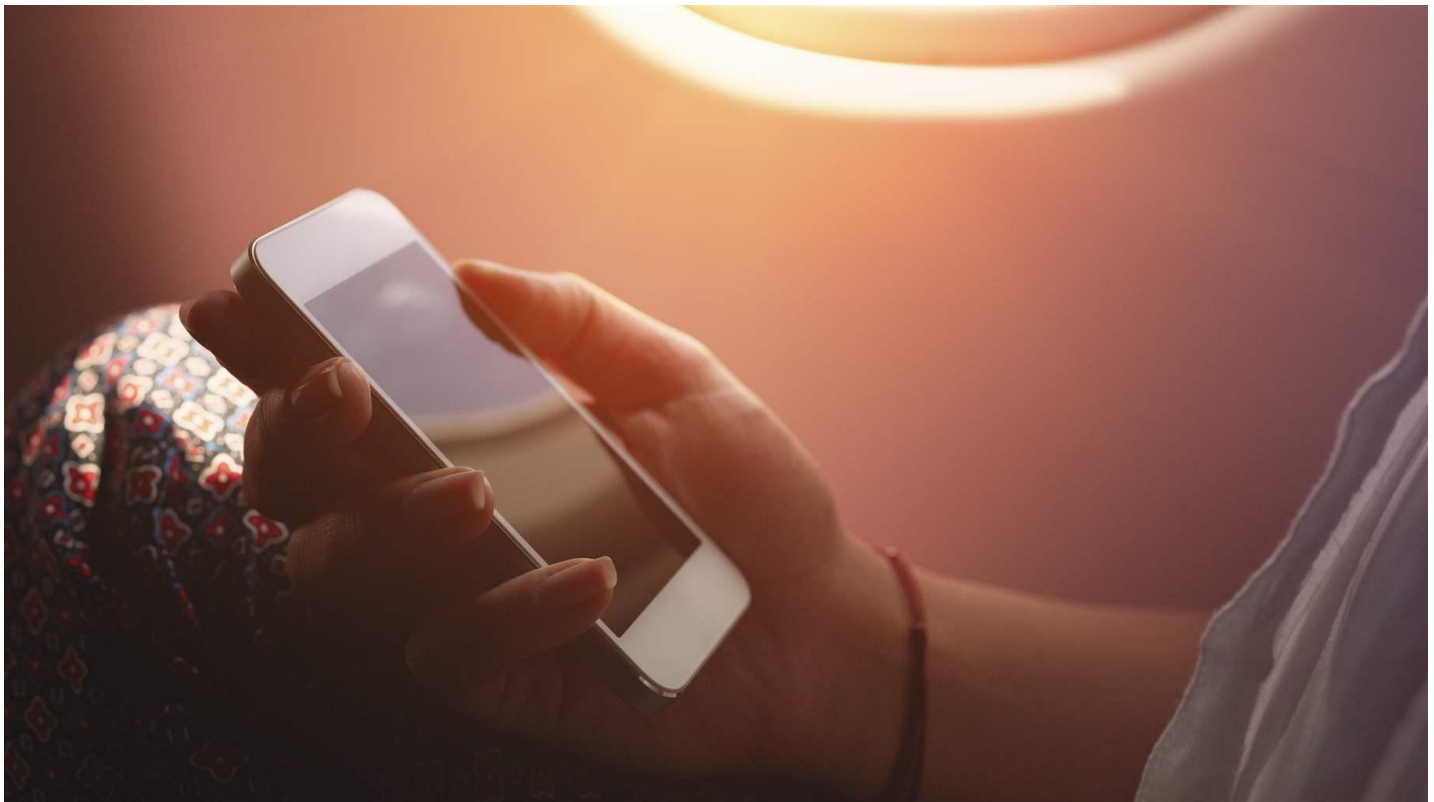
Wireless internet involves three main types of technology.

Fixed wireless connections involve beaming signals through the air from a tower and are frequently used in remote or rural areas with low housing density.

As with DSL, speeds get slower as the user gets farther from the transmitter. These connections cover fewer than half of U.S. households but can provide a **reliable last-mile option for rural areas**.

Satellite connections are another alternative for rural consumers, but they can be expensive and aren't easy to distribute widely. These connections come in two types:

- Geostationary technologies involve individual satellites orbiting at more than 22,000 miles above the Earth.
- Low-Earth orbit broadband uses constellations of satellites in orbit 200 to 800 miles above the Earth.



Finally, **mobile connections** are a crucial part of today's world.

- More than 83% of Americans access the internet via smartphones, tablets, and other mobile devices.
- Mobile devices are the only means of internet connection for 15% of Americans.

[Mobile communications](#) include two main technologies.

- 4G (fourth generation, includes LTE)
 - Usually offers speeds above 1 megabit per second (Mbps).
 - The most common mobile technology.
- 5G (fifth generation)
 - Usually offers speeds of 1 gigabit per second (Gbps) or higher.
 - In the process of being deployed on a large scale by providers.

Wireless infrastructure depends on spectrum—electromagnetic radio frequencies—to transmit data to end users' devices. Spectrum may be “licensed,” that is, specific frequencies granted by the Federal Communications Commission (FCC) to individual ISPs for their exclusive use, or “unlicensed,” meaning available for use by anyone.

Different technologies require different spectrums. For instance, 5G uses high frequencies that enable data to travel faster but not as far as at lower frequencies. To make up for those distance limitations, 5G service requires a greater density of transmitters and receivers to carry data than do 4G and earlier generations of wireless service that rely on lower frequency spectrums.

Laying the Groundwork

Americans view billions of web pages, stream millions of videos, and spend hours scrolling through social media every day.

And all this connectivity relies on the physical [infrastructure of the internet](#)—cables, wires, servers, routers, network switches, and more.

Building, connecting, and maintaining that infrastructure is complicated, involving a host of steps, such as attaching wires and other equipment to utility poles and siting wireless facilities.

First step: Get access to the land

To build broadband networks, internet service providers (ISPs) need to install infrastructure on public and private land. And for that, they need permits or easements.



Permits authorize ISPs to build in public areas (streets, sidewalks, trails, highways) or enter public areas to build or maintain infrastructure.

Getty Images

Easements granted by private property owners, easements give an ISP the right to use and enter the property for a specific, stated use. Negotiating easements can add time and cost to a project, so many states have adopted policies to streamline the process.

The Pew Charitable Trusts

Next step: Lay the groundwork

Fiber and other wired infrastructure are either placed aerially on poles owned by telephone or electric companies or buried underground.

Aerial installations involve “make ready” work, in which utility companies and ISPs ensure that the poles are ready to have new equipment attached.

For underground deployments, fiber lines and other broadband cables are run through conduit—plastic tubing that protects the lines from damage. An ISP may add excess fiber or conduit in anticipation of future needs as either “dark” or “lit” fiber.

- **Dark fiber** is not yet connected to the equipment necessary to supply internet service.
- **Lit fiber** is connected and transporting data.

What about wireless?

Fixed and mobile wireless services use towers and antennas. The sites where these facilities are placed fall into two categories.



Macrocell Sites

- Provide coverage to large areas.
- Often on telecommunications towers, although may be co-located on other structures, such as water towers.
- Require “line of sight” between towers for signal to travel from site to site unobstructed.



Microcell Sites

- Provide coverage to a small area.
- Needed for 5G mobile wireless and wi-fi service.

Zoning for wireless

Both macrocell and microcell sites are usually subject to local zoning requirements, which address location, safety, and aesthetics. Common zoning regulations include:

- Tower height limits.
- **Camouflage** requirements (for example, when towers look like artificial trees).
- **Co-location**—placing new equipment on existing towers or other structures, such as water towers, rather than erecting new towers.

To reduce the cost of deploying wireless service, many states have limited local control over the size, placement, and scale of wireless infrastructure. In addition, the FCC has pre-empted local control over microcell zoning.

Challenges in rural infrastructure

States are increasingly looking to improve the availability of broadband, particularly in rural and unserved communities. These areas often lack a sufficiently dense customer base to entice commercial ISPs.

New federal laws have made billions of dollars available to states to expand broadband infrastructure. But no single solution can connect all communities to high-speed, affordable internet.

Among the [strategies now being deployed](#) are:

- Allowing **electric cooperatives** to offer internet.
- Forming **regional utility districts to supply broadband**.
- Using **investor-owned utilities to improve the availability of critical infrastructure**.

States lead on expanding broadband

Because no single approach will work for every state or community, states are creating broadband programs that meet their unique needs. These programs will also help states take advantage of the billions of new federal dollars available.

Successful state efforts to expand broadband access do three key things:

1. Establish broadband offices.
2. Provide planning and technical help.
3. Create competitive grant programs.

Together, these steps foster community engagement, enable effective stewardship of public funds, and ensure that state and local activities remain focused on achieving universal broadband access.

Barriers to access

American life—from work to education to health care—is increasingly moving online. The COVID-19 pandemic accelerated that process and underscored the need for reliable, consistent high-speed internet access for all. Access refers to the existence of infrastructure to support high-speed internet service in a given geographic area.

But more than 40 million Americans lack access to home broadband. What's more, nearly 1 in 4 Americans have not "adopted" broadband (subscribed to home internet) when a connection is available.

Adoption rates are even lower among adults who are low-income, rural, non-White, 65 and older, or not college-educated.

Three main factors affect internet adoption

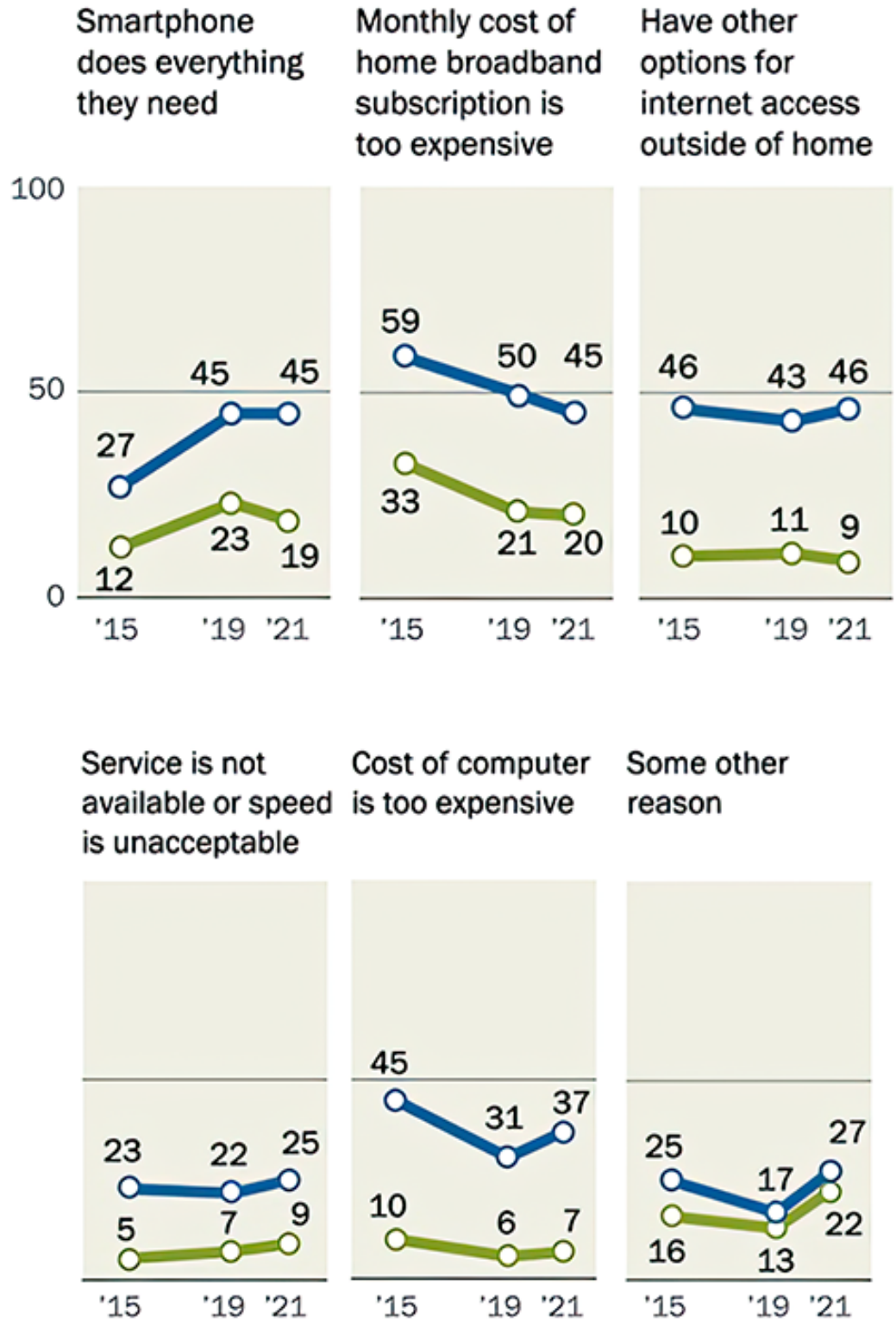


Research has shown that cost is the primary barrier for low-income households. Pew Research Center found that 45% of people who do not have broadband cite the high monthly cost as a reason. And 37% cite the cost of a computer.

Smartphones, Financial Barriers, and Outside Options Among Reasons for Not Having Home Broadband

Percentage of nonbroadband users in the U.S. who cited each a reason or as the most important reason

■ A reason
■ The most important reason



How much do American households pay for broadband?

Although nationwide data on pricing is limited, estimates of the average monthly bill for service range from less than **\$50 to nearly \$70**. And that doesn't include additional one-time or monthly fees, which could bring bills up to an average of \$85 a month.

High costs leave low-income households at a disadvantage, worsening inequities and deepening the digital divide.

Addressing affordability requires a combination of approaches:

- **Supply-side solutions** to reduce the cost of building networks and delivering service.
- **Demand-side interventions** such as policies and programs that help low-income consumers cover the cost of connections and devices.

What's Next

Want to keep up with more broadband policy news and research? [Join our email list to stay on top of our newest research and recommendations.](#)

Find more in-depth information on our [Broadband Expansion](#) page.

Endnote

- Andrew Perrin, “Mobile Technology and Home Broadband 2021” (The Pew Research Center, 2021), <https://www.pewresearch.org/internet/2021/06/03/mobile-technology-and-home-broadband-2021/>.

FACT SHEET

August 18, 2023

Projects: [Broadband Access](#)

Topics: [U.S. Policy & Infrastructure](#)

Experts: [Kathryn de Wit](#)

Places: [United States](#)

RELATED EXPERTS



[Kathryn de Wit](#)
Project Director
Broadband Access Initiative



MEDIA CONTACT

Benny Martinez

Officer, Communications

[202.540.6456](tel:202.540.6456)



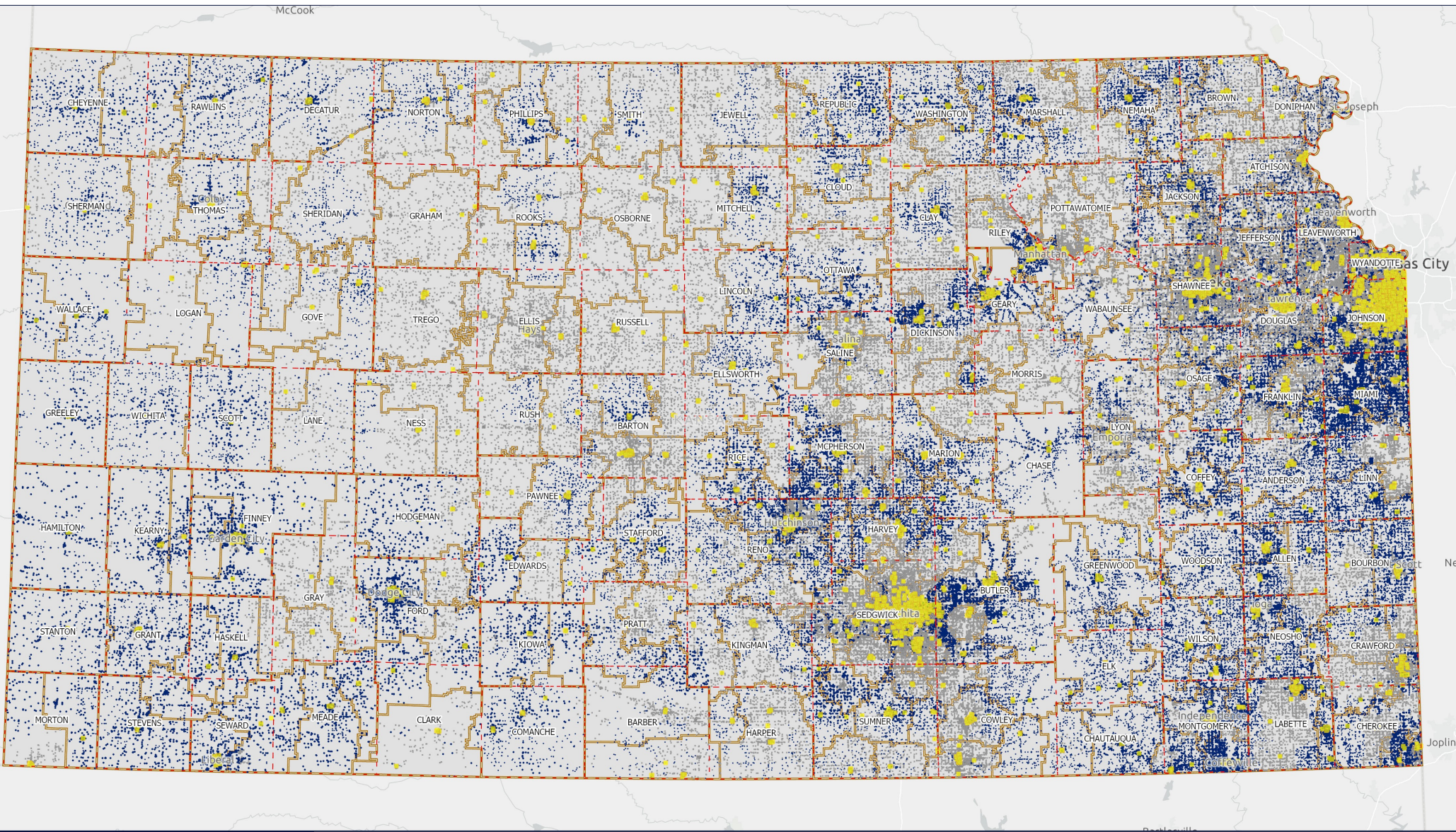
State Broadband Map

The Kansas Office of Broadband Development has worked to create an image of the current state of broadband in Kansas.

The map on the following page shows those locations that are currently deemed eligible for BEAD funding and those that are currently deemed ineligible for BEAD funding. It also shows the Unified School Districts, which KOBD is currently using to determine Project Funding Areas for BEAD grant applications.

Through the grant portal, partners will submit their intent to service Project Funding Areas.





Regional Outreach Planning - Served & Unserved Locations

Fixed Broadband (Fiber, Cable, Copper, Fixed Wireless)

- County
- Unified School District
- Community Anchor Institution

● Eligible for BEAD
Less than 100/20 mps

Ineligible for BEAD
100/20 mps or greater



THE BROADBAND EQUITY, ACCESS AND DEPLOYMENT (BEAD) PROGRAM OVERVIEW

FUNDED BY THE BIPARTISAN INFRASTRUCTURE LAW

Where we are today...

Many Americans lack access to affordable, reliable, high-speed Internet

America runs on high-speed internet. A strong internet connection powers our economy and supports education. It fosters better public health. And, it connects loved ones and strengthens social ties. But not everyone is connected. Too many Americans are cut off from the opportunities that high-speed internet makes possible. That’s why we’re working to bring high-speed internet to all Americans.



... and where we're going

The BEAD Program includes \$42B for high-speed Internet access

Funded by the Bipartisan Infrastructure Law, BEAD is a federal grant program that aims to get all Americans online by funding partnerships between states or territories, communities, and stakeholders to build infrastructure where we need it to and increase adoption of high-speed internet. BEAD prioritizes unserved locations that have no internet access or that only have access under 25/3 Mbps and underserved locations only have access under 100/20 Mbps.

Select BEAD program details

Eligible entities

- 1 All 50 States, District of Columbia, and Puerto Rico
- 2 Other Territories: U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Mariana Islands

Example eligible uses of funds

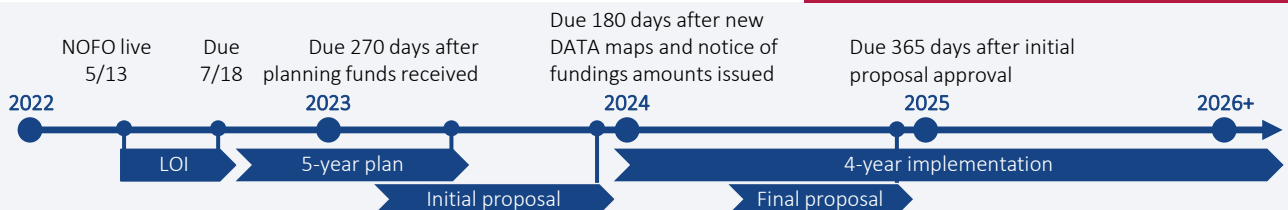
- 1 Planning for the deployment of high-speed Internet, including conducting research, collecting data, outreach, and training
- 2 Deploying or upgrading Internet in unserved or underserved areas or improving service to community anchor organizations
- 3 Installing Internet and Wi-Fi in multi-unit residential buildings
- 4 Adoption and digital equity programs
- 5 Workforce development programs and vocational training

Ways to get involved

Eligible entities must conduct coordination with local governments, Tribes, community orgs, and individuals within their jurisdiction. Members of the public are encouraged to contact U.S. states, the District of Columbia, Puerto Rico, and territories to learn about more ways to get involved.

Timeline

Timeline approximate unless exact date specified



Local, regional, and tribal collaboration is required to ensure that applicants have properly engaged Kansans to determine their communities' needs.

Scoring

- Applications that demonstrate meaningful community engagement and local planning, as described below, will receive seven points. Two points will be awarded if letters of support are the only evidence provided, and zero points if no documentation is provided.

Community Engagement

- Prospective subgrantees must demonstrate extensive community engagement and local planning. Understanding the infrastructure and service needs in the Project Funding Areas requires network planning, design, and the voice of the residents. Applications must include evidence of locally held meetings with residents and businesses from the Project Funding Areas where they are applying. This evidence must consist of meeting minutes, attendee lists, and discussion items like those contained in the NTIA Local Coordination Tracker. Furthermore, locally held discussions on permitting, rights of way, pole attachments, or other easement needs are preferred. Lastly, KOBD expects applicants to share their rate plans, low-cost service plans, terms and conditions, service commitments, and billing formats to each Project Funding Area.

Letter of Support

- Applications with letters of support from local leaders (e.g., county commissioners, Tribal leaders, board of supervisors, city councils, unified school district boards, local businesses, or residents), but cannot demonstrate local planning as described above, may receive two points, depending on the number and quality of each formally authorized letter. Local and tribal governments may provide letters of support for one or more applicants for the same Project Funding Area.



Program Overview:

The Kansas Office of Broadband Development (KOBD) has developed the Kansas Broadband Ready Communities (KBRC) program to address broadband access challenges in unserved and underserved areas of the state. The program aims to assist communities in preparing for future grant funding opportunities by providing an efficient and accessible path to broadband readiness.

Communities seeking certification under KBRC must adopt an ordinance that aligns with the minimum requirements outlined by the program.

These requirements include:

- having a designated point of contact,
- timely review of project applications within 30 business days,
- transitioning to electronic filing systems,
- ensuring reasonable filing fees, and
- prohibiting discrimination in permitting procedures.

KOBD will maintain a public-facing list of certified communities on its website, showcasing their commitment to broadband deployment.

The KBRC program aims to empower Kansas communities in expanding broadband access and ensuring readiness for future grant funding opportunities. By meeting the program requirements, communities can achieve certification while demonstrating their commitment to broadband deployment and equitable access.

Certification Requirements:

To be considered a Kansas Broadband Ready Community by the KOBD, an eligible entity must make measurable strides to adhere to the following “Principles of a Kansas Broadband Ready Community” (Principles):

1. Community has a single point of contact for all matters related to a broadband project.
2. All applications related to a project will be reviewed and either approved or rejected within thirty (30) business days of submission.
3. Community is in process of moving towards electronic-filing system for all forms, applications, and documentation related to a project.
4. Not impose a fee for reviewing an application or issuing a permit for a project beyond what is allowed in K.S.A. 17-1902;
5. The regulatory permit procedure prohibits discrimination among broadband, telecommunications, utilities, or cable service providers with respect to granting access to public rights-of-way, infrastructure, poles access, or any other physical assets owned or controlled by the applicant.

In order to show commitment to the principles outlined above, the KBRC requires that an eligible entity adopt them into its respective code in the form of an ordinance. The ordinance must substantially adhere to the language and purpose of the principles outlined above. Eligible entities will have the option of adopting a draft ordinance contained herein. Adoption of the draft ordinance with no material change will automatically qualify a community as broadband ready.



Timeline:

KBRC applications will be received on a rolling basis. KOBD will respond with 30 business days to submitted applications. If curing is required, the applicant will have 30 days once notified to resubmit.

Eligible Entities:

Any county or municipality within the state of Kansas is eligible to apply for KBRC certification.

Application Process:

Interested applicants are required to submit the following documents, completed and with all required signatures, to kdc_broadband@ks.gov:

- Completed application
- Proof of passed ordinance containing the aforementioned principles.

If a community opts to not adopt the model ordinance, KOBD reserves the right to accept or reject a submitted ordinance based on its own interpretation of adherence to the principles outlined herein. Furthermore, KOBD reserves the right, based on its own review of the application, to offer a rejected applicant the opportunity to cure any defects that may have led to rejection of the application during the initial round of review.

Reevaluation of Standards:

In line with the rapidly changing standards in the broadband environment, the program principles outlined herein will be reevaluated every three years by the KOBD. Previously approved applicants will be grandfathered into new approved standards and will have to recertify in accordance with their preexisting calendar date.

Recertification:

Previously qualified applicants will be required to recertify every three years. Currently certified communities will be notified six months prior to the expiration of their certification.

Definitions:

Kansas Broadband Ready Communities ("KBRC"): A Kansas Broadband Ready Community (KBRC) is defined as a city or county within the State of Kansas that has met all requirements established by the program and has received official notification of certification by the KOBD.

Permit: Any local permit, license, certificate approval, registration, or similar form of approval required by policy, administrative rule, regulation, ordinance, or resolution with respect to a broadband network project.

Project: The construction or deployment of wireline or wireless communications facilities to provide communications services.



NEED MORE INFO?
PARTNERSHIPS COORDINATOR SHELLEY PAASCH
SHELLEY.A.PAASCH@KS.GOV 785.276.9995

Introduction to Permitting

The BEAD Program emphasizes building infrastructure for unserved and underserved communities, which may require permits from federal, state, Tribal and local governments. It is imperative that all applicants and Eligible Entities fully understand permitting requirements and procedures to ensure a streamlined process.



WHAT IS A PERMIT?

A permit, in the context of broadband, entails obtaining permission for a broadband project to be deployed. Broadband networks are often built along public land that runs alongside roads and railways or private land and facilities. Networks are either buried, aerial, or both. These deployments **require many kinds of permits** from owners and authorities. An applicant that will be **deploying or expanding a wireline or wireless network** in states may have to work with several government agencies to **secure permits needed to deploy broadband infrastructure**. Note that all projects funded through a federal grant will also **need to comply with the National Environmental Policy Act (NEPA)**, and relevant toolkits are provided.



WHAT TYPES OF PERMITS MIGHT A DEPLOYMENT REQUIRE?

Easements to Access Government or Private Assets



*Applicants and subgrantees will need permission – such as a right-of-way or other easement – from a range of owners/authorities when their deployment crosses: **government** or **privately** owned land, **bridges, overpasses, railroads, buried deployment** (running cables underground), **aerial deployment** (attaching cables to utility poles and tower builds), etc. The federal government alone owns about 28% of U.S. land, and this land is managed by many different federal agencies.*

Environmental and Historic Preservation (EHP) Considerations



*Broadband projects **must** perform a **National Environmental Policy Act (NEPA) analysis** and meet applicable state, local, and/or Tribal government environmental and historic preservation permitting requirements as well. All permit applications will involve a NEPA review, so be aware of all the steps that require a NEPA review. A NEPA/EHP toolkit will be provided to assist with environmental permits.*



Note that this document's main purpose is to provide a guide on **securing easements for accessing government land.**

Securing an Easement or Right of Way Access

The process of securing an easement or right of way access for broadband deployment requires multiple steps and documents. It is important to appropriately follow each required permitting step for the relevant infrastructure or property owner to be used in deployment.



NAVIGATING THE PROCESS

- 1 Identify the **owner** of the infrastructure or property to be used in deployment.
- 2 If government owned, identify the **federal, state, or local agency**.
- 3 Identify the **type of permit to be obtained** and understand its process.
- 4 **Engage early** and schedule pre-meetings to obtain all your **documentation** and ensure application **completeness**.
- 5 **Submit** required documentation.
- 6 **Follow up** and **track** your application.



Identify the owner of the infrastructure or property to be used in deployment.



*If **state/locally-owned land**, coordinate with your relevant state or local agencies.*



*If **privately-owned land**, coordinate with the appropriate individual or corporation.*



*If **Federally-owned land**, identify the correct Federal agencies to coordinate with.*



*If **Tribal-owned land**, coordinate with the Bureau of Indian Affairs (BIA) and the Tribal Entity.*



*If **railway access** is necessary, coordinate with your relevant railroad owner to obtain a **Right of Way**.*



*If **bridge/overpass access** is necessary, coordinate with your relevant state, local, or federal office to obtain a **Right of Way**.*



*If access to **poles or towers** are needed (aerial deployment), coordinate with the relevant pole/tower owners to obtain a **Right of Way**.*



*If access to **ducts or conduit access** is needed (burial deployment), coordinate with the relevant duct/conduit owners to obtain a **Right of Way**.*



*If **federal road/highway access** is necessary, coordinate the Federal Highway Authority (DoT) to obtain a **Right of Way**.*



Consider all possible infrastructure or property owners.

- | | | |
|------------------------------------|--------------------|----------------------------|
| Internet Service Provider | Federal Government | Telecommunication Company |
| State, Local, or Tribal Government | Utility Company | Private/Personal Ownership |

Note that if you cannot identify the owner of the land or property, contact your **state or local government to locate the property records to identify the owner.**

Permission to Access Federal Land

As the federal government owns about 28% of U.S. land, obtaining federal permits will be crucial as applicants begin their broadband deployment projects. Identifying the proper federal agency and understanding its permitting process is vital to ensuring a timely and efficient permitting process.



If the land is Federally-owned...

Identify the appropriate Federal agency.

- Department of Energy
- Department of Agriculture
- Department of Defense
- Department of Commerce
- Department of Interior
- Any other relevant federal agency
- U.S. Army Corps of Engineers
- Department of Transportation
- General Services Administration

Identify the type of Federal permit(s) to be obtained and understand its process.

Be sure to contact federal agencies early in the planning process to address coordination needs. Improper applications or incomplete applications will delay the permitting timeline significantly, so early-stage planning and coordination is crucial.



If you are operating along **public land that runs alongside roads, railways, or private land and facilities**, prepare to obtain a **Right of Way**. Railroads and bridges/overpasses have their own specific permits. These can be obtained using the universal **SF-299 Form for most federal agencies**.



If you are running **cables underground** for broadband, prepare to obtain a permit related to **buried development**. This is also obtained using the **SF-299 for most agencies**.



If you are **attaching cables to utility poles** along the Right of Way, prepare to obtain a permit related to **aerial development**. This is also obtained using the **SF-299 for most agencies**.



Note that not *all* federal agencies accept the SF-299. **Common permitting agencies** that utilize the SF-299 are:

- Department of Interior (DoI)
 - Bureau of Land Management (BLM)
 - National Park Service (NPS)
 - U.S. Fish and Wildlife Service (FWS)
- Department of Transportation (DoT)
- General Services Administration (GSA)
- U.S. Department of Agriculture (USDA)

Permission to Access State/Local Land

Along with obtaining federal permits, applicants will need to obtain multiple state/local permits, all under the rules and regulations of their individual state and local community. Be sure to follow all applicable timelines and identify what permits are needed to satisfy local permitting requirements.

If the land is State/Locally-owned...

Identify the appropriate state or local agency.

- State Department of Natural Resources (DNR)
- State Department of the Environment (DoE)
- City Department of Parks and Recreation
- State Department of Transportation (DOT)
- City Departments of Transportation
- State Historic Preservation Office
- State University System
- County Community Development or Land Use Department
- States Parks/Forests
- County Department of Emergency Services
- Any other relevant state or local agency

Identify the type of State/Local permit(s) to be obtained and understand its process.

Be sure to contact State/Local agencies early in the planning process to address coordination needs. Improper applications or incomplete applications will delay the permitting timeline significantly, so early-stage planning and coordination is crucial.



If access to state-owned lands or infrastructure is needed, coordinate with your State Department of Transportation or any other relevant state agencies to identify the landowners and required **Rights of Way (ROW)**.



If the land has any **regulated environmental, historic, or cultural resources impacted**, be sure to coordinate with your State Department of Environment, Department of Natural Resources, or any other relevant state agencies. **Environmental permits will almost always be required.**



Forms vary county-by-county, city-by-city, and across state agencies, so be sure to start identifying the documentation needed early in the process, along with tracking and following relevant timelines.



Eligible Entities and localities are encouraged to **examine and streamline their permitting processes**. Finding possible overlaps and duplication is key to ensuring a timely process.



Accessing private land in a state/county requires **contacting the direct property owner for permission**, and these owners may have their own forms, rules, and regulations to follow for the land.

Navigating the Permitting Application Process

To help streamline and ensure a proper and timely permitting application, it is imperative that applications obtain all required documents, ensure that their applications are correct and complete, and submit everything on time.



Obtain all required documentation and ensure application completeness.

Potential documents may include:

- Application
- Bonding/Insurance
- Traffic Control Plan
- Legal Description
- Fees/Appraisals
- Information of Contractor Performing Work
- Owner Consent*
- Period of Construction
- Engineering/Design
- Environmental/Cultural Study

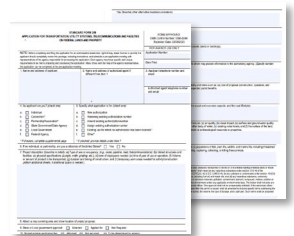
Engage early and schedule pre-meetings to obtain all your **documentation** and ensure application **completeness**.

**Note that for most federal agencies, owner consent is not needed as the federal government is the owner of the land. Owner consent is typically needed for Tribal lands and privately-owned lands.*



Submit all required documentation.

Most major federal property-managing agencies will use the **SF-299** as the common application form to authorize easements for wireline or wireless communications uses or facilities on federal lands. Access the SF-299 form at <https://www.gsa.gov/forms-library/application-transportation-utility-systems-telecommunications-and-facilities-federal>. The SF-299 form can be submitted by mail, fax- or in-person. Applications for communications sites can be filed online.



All **state and local agencies, pole/tower owners, railroad owners, etc.** will have their **own specific forms** as well, so be sure to check the **permitting website of the agency** to check. Follow all **relevant timelines** and be sure to appropriately fill out and submit all needed forms and documentation. Most forms can be accessed on the State's dedicated permitting site.



Follow up and track your permit applications.

- ✓ **Follow up** with all relevant federal, state, and local agencies to ensure all documentation was **properly submitted**.
- ✓ **Ensure no additional documentation** is needed.
- ✓ **Track the timeline** of permit applications to ensure all permits will be completed in a timely fashion for proper post-award deployment.

Remember that a **NEPA analysis** is required for **all** federally-funded projects. Please reference the EHP Toolkit for information and best practices this.

Google Fiber's Open Letter to State Broadband Leaders on Planning for BEAD and Future Deployment Efforts

Submitted on October 4, 2023



Wednesday, October 4, 2023

Digital Beat

Google Fiber's Open Letter to State Broadband Leaders on Planning for BEAD and Future Deployment Efforts



Schaffer

Dear Broadband Leaders,

Google Fiber is pleased to submit the recommendations below for broadband leaders to consider as they structure their BEAD Five-Year Action Plans and Initial and Final Proposals.

Google Fiber is an Alphabet company that brings G Fiber and G Fiber Webpass internet services to homes and businesses across the United States. Our mission is to deliver fast, reliable, fairly priced, and open internet service—using the best technologies, methods, and people to accomplish that. We continue to develop better ways to build out internet infrastructure and are actively expanding our network in both our existing markets and in entirely new ones. Visit our website, at fiber.google.com (<http://fiber.google.com>), to learn more.

Over the past decade, G Fiber has launched gigabit-speed internet service in nearly 20 major metropolitan areas, setting a new standard for internet speeds, climbing to the top of industry rankings in customer satisfaction, injecting meaningful competition into a fossilized industry, and driving other providers to upgrade the speeds and service they offer their customers.

As a company that has long been a leader and innovator in broadband deployment and access, and one that believes that choice and competition in the broadband space create a rising tide that lifts all boats, we believe there are several infrastructure and deployment policies that will help broadband leaders achieve their goal of bringing affordable, high-quality internet access to all residents. Removing barriers for broadband deployment will help stakeholders bring connectivity to as many households as possible – more quickly and with less disruption.

The following six recommendations answer a straightforward question: What can state broadband leaders do right now to remove barriers for broadband deployment? We hope you will find these suggestions helpful as you continue to expand broadband access across your state.

1. Work with State 811 One Call Center to Address Locates Constraints

811 is the national phone number designated by the Federal Communications Commission that connects professionals and homeowners with their local One Call Center. In many states, the 811 One Call Center (<https://call811.com/Before-You-Dig>) is a non-profit organization mainly funded by the member facility owners and managed by a board of directors. Their motto is “Call Before You Dig.”

Each state’s 811 center requires that all utility companies, and anyone else who has infrastructure in the ground, mark their assets before a new excavation project occurs in the same area. You might have seen orange or pink temporary paint on streets and sidewalks, or sometimes little marker flags in the softscape – these markings and other identifiers are part of what is known as the utility “locates” process. Locates are marked to protect public safety and avoid accidents that may result from new construction disrupting underground facilities like gas or water lines.

The current locates system is not designed to handle the vast amount of new project work anticipated in the next few years. Accordingly, to avoid delays and major problems, key stakeholders will need to develop new solutions. Given the workforce constraints across the industry, it is no surprise that there is also a shortage of locator personnel. It will be imperative to limit unnecessary locates as well as ensure locators are given additional time to prepare. We recommend updating the existing locates process to accommodate the increased construction activity and improving practices and processes to protect communities and maintain public safety. We suggest the following:

- **Discuss best practices with new deployers including the following:**
 - Ask new excavators for regular participation with the Utility Coordinating Committee (UCC) meetings in the local areas where they are deploying.
 - Ask the excavators coming into the state to take the state’s free 811 training prior to creating tickets. Every state has some kind of training in their specific laws, and with so many broadband deployers and sub-contractors crossing state borders to work, understanding the nuances should be promoted.
 - Suggest pre-construction meetings between operator/excavator and locators for large projects. Also encourage mandatory notifications from the operators/excavators to peer utilities/locators that establish paths and schedules through each leg of the project.
- **Encourage Data sharing between the State and 811.**
 - In an effort to avoid delays, and before the commencement of construction, the State Broadband Office should share with the State’s 811 center the locations where publicly funded projects are going to be built. The State could even share this information before awards are announced since the location is what matters in the locates process, not who the broadband deployer is. This can be particularly important in rural areas where gas and water lines may be older, and the facility owner may need additional time to prepare to map the asset. With this location information, the State 811 can provide outreach to members within the communities where the work is taking place – providing a much-needed “heads up” to let smaller entities know what’s coming.
- **Consider using broadband funding to support the locates process.**
 - Consider grant funding for in-house locators in municipalities as well as for utilities that may see a temporary influx of infrastructure deployment. Small and rural utilities are likely to feel the most pressure. Also consider a standardized template for communities to use to ensure that the vendors they are hiring align with the state’s deployment goals.
- **Continue Partnerships between State 811 Centers and State Broadband Offices.**
 - With the arrival of new construction crews coming in from other states, it is crucial that they know the best practices and how to safely operate in the state.
 - Consider including a one-page summary written by the State 811 advising the winning recipients of the basic steps to ensure safe digging across the state.
 - Consider a joint effort to modernize 811’s technology. Provide opportunities for network builders to “see,” in real-time, all locate requests submitted and the status for each. Reporting chronic damagers would also be useful information for companies who make decisions about vendor hiring and risks associated with third-party projects.
 - Hold regular meetings between the State 811 and State Broadband Office to discuss ongoing broadband deployment rollout and best practices.

2. Streamline Permitting: Create Standardized Resources for Cities and Counties to Simplify the Permitting Process

Permitting is one of the biggest challenges to broadband deployment. Long and opaque permitting processes delay broadband deployment and are a disincentive for providers to come to your state. To streamline the permitting process, you can encourage (and possibly fund) efforts to:

- Create an [online one-stop shop for submitting permits](#).
- [Streamline the application](#), inspection, and review process. Urge local governments to identify a single point of contact within one department to coordinate all approvals. This will make it easier for broadband deployers to get the permits they need.
- [Arrange regular meetings](#) with broadband deployers to escalate concerns before they become issues. This will strengthen the partnership between communities and broadband deployers and help avoid problems for residents before they arise.
- Support [automatic online tracking tools](#) to ensure all tracking on a single system. The system would include permits, inspections, traffic control specifications, and other city requirements. This will make it easier for broadband deployers and their vendors to adhere to all necessary requirements.
- Distribute a [model “requirements checklist”](#) to local governments for them to use when broadband deployers try to engage. Insight into the entire process is critical.

3. Promote Broadband Choice and Competition for Multifamily Property Residents

Residents of apartment buildings are familiar with the “welcome folder” that greets them upon moving in: it contains information on trash and recycling pick-up, how to turn on the gas, and how to set up their internet. While there might be multiple Internet Service Providers (ISPs) in the building, residents are often presented with only one option—and this is no accident. A single ISP has likely paid a sizable amount to the building owner to ensure the residents are aware of only one option. This is often known as an exclusive marketing agreement.

Exclusive marketing agreements hurt consumers by limiting choice and disincentivizing competition. We urge state leaders to encourage transparency by restricting ISPs’ ability to implement these agreements when they have been awarded public funding. We encourage state leaders to create model agreements that ISPs and multifamily property owners can use that are free from these restrictions.

4. Assign a Designated State Official to Liaise with Cities on Broadband Build-Out

To help support cities, the state should designate a liaison to coordinate with cities on broadband build-outs, best practices in permitting, and guidance on navigating general challenges. Permits help ensure public safety by reducing potential hazards of unsafe construction. Each permit needs to be approved by the local permitting office and, right now, many municipal offices are understaffed and under-resourced. When permitting offices cannot keep up with the number of permits—as is often the case with city-wide deployments—they slow down construction.

5. Create and Promote a State and Local Government “Broadband Innovation Resource List” to Keep Cities and Counties Up to Date on the Latest Technological Developments

There are a number of deployment innovations that can be used to expand broadband access. Encourage communities in your state to consider innovative deployment processes and construction techniques, such as microtrenching, that speed deployment and cut construction time. Not every deployment method is the right fit for every community, so communities should ask the broadband deployer to see examples of past deployments and come prepared with questions.

Supporting innovation can also include flexibility in building locations. This could mean having city officials available to meet a construction crew on short notice for a redesign approval. It will almost always be helpful to engage the city public works teams early, and promoting investment in faster networks that are built to last may require an “all of the above” deployment strategy.

6. Set up a State-County-City Task Force that Meets Regularly to Share Information and Troubleshoot Issues

This unprecedented effort to connect every household will require information sharing. A taskforce can discuss best practices, brainstorm solutions, and share timely updates.

Final Thoughts

To close the digital divide, we need close partnership among state broadband leaders, local governments, and broadband deployers. With historic investment in broadband deployment, partnerships will help meet immediate connectivity and affordability needs. But our goals are aligned – bring connectivity to as many households as possible, and as quickly as possible.

Ariane Schaffer serves as Public Policy and Government Affairs Manager for Google Fiber and has worked for the company since 2018. In this role, she focuses on broadband public policy, state and federal government relations, digital equity efforts, partnerships, and business expansion. Prior to joining Google Fiber, Ariane was Executive Briefer to the Governor of New York. A New Orleans native, Ariane holds a bachelor's degree from American University's School of Public Affairs in Washington (DC) and currently lives in New York City.

The Benton Institute for Broadband & Society is a non-profit organization dedicated to ensuring that all people in the U.S. have access to competitive, High-Performance Broadband regardless of where they live or who they are. We believe communication policy - rooted in the values of access, equity, and diversity - has the power to deliver new opportunities and strengthen communities.

© Benton Institute for Broadband & Society 2023. Redistribution of this email publication - both internally and externally - is encouraged if it includes this copyright statement.

For subscribe/unsubscribe info, please email headlines@benton DOT org



Kevin Taglang
Executive Editor, Communications-related Headlines
Benton Institute
for Broadband & Society
1041 Ridge Rd, Unit 214
Wilmette, IL 60091
847-220-4531
[headlines AT benton DOT org](mailto:headlines@benton DOT org)



Broadband Delivers Opportunities and Strengthens Communities

BROADBAND STAKEHOLDERS

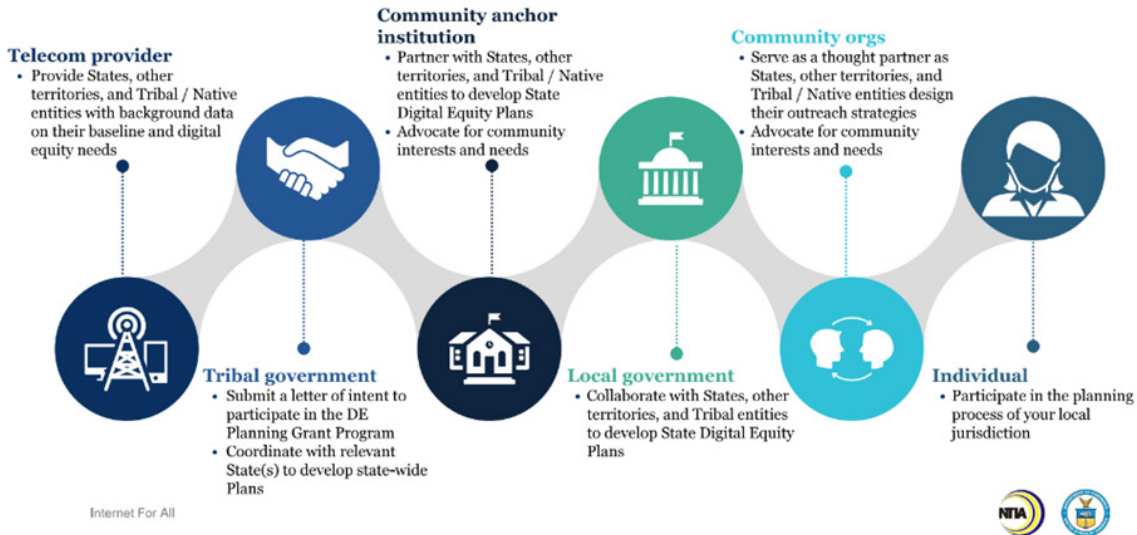
Including but not limited to:

Roles & Goals

Every stakeholder plays a role in the BIL programs



Illustrative, non-exhaustive



BIL FUNDS ACROSS SECTORS



TRANSPORTATION

BIL will invest \$110 billion, nationally, to repair roads and bridges, expand public transit options, and more



WATER

BIL will invest \$55 billion, nationally, to improve the quality of drinking water, delivery systems, and more



ENERGY

BIL will invest roughly \$65 billion, nationally, to upgrade the electrical grid, transmission lines, and more



BROADBAND

BIL will invest \$65 billion, nationally, to help ensure every American has reliable access to



CYBERSECURITY

BIL will invest more than \$1 billion, nationally, to strengthen cyber networks, defense

The **Bipartisan Infrastructure Law (BIL)**, Historic investment in U.S. infrastructure also known as the Infrastructure Investment and Jobs Act (IIJA), will invest **\$1.2 trillion** across the United States. BIL supports investments in transportation, energy, broadband, water, and cybersecurity.

For broadband, a historic **\$65 billion** will be invested to connect all. Kansas was allocated **\$451.7 million**.

PUBLIC BROADBAND

Local governments are increasingly investing in public broadband networks to provide internet access for government services, community members, or both. As a community, you will first need to decide whether your local or tribal government or non-profit will apply to deploy broadband or if you will partner with ISP(s) to deploy broadband to Eligible Locations in your region's Project Funding Areas. There are many models for public broadband networks, some of which are detailed below. Your community will need to consider your assets, needs, and priorities when choosing the best model.

- Municipal Networks are built and owned by local governments. They may connect a small number of locations or service an entire community. Municipalities may choose to run the network or contract an ISP to run the network.
- Public-Private Partnerships are a collaboration between local governments and private companies to divide the roles and responsibilities of network ownership and operation.
- Institutional Networks connect municipal buildings, many of which may be Community Anchor Institutions like city office buildings, schools, public safety buildings, and libraries. While Institutional Networks do not serve homes or private businesses, they could act as the backbone of a broader network that connects the community.
- Electric Co-Ops first brought electricity to communities and many later became telephone service providers in rural areas. Many are now expanding to provide broadband internet connections to their customer base.
- Working with Incumbent Providers leverages existing networks and can lead to a successful partnership to close the digital divide in your community.

INTERNET SERVICE PROVIDER INFORMATION

There is a great upcoming opportunity for communities to forge partnerships with the Internet Service Providers who will be closing the digital divide in their regions. Providers will be calling on you to join them in locally held meetings to learn your needs. They will ask for your support in the form of written letters and in simplifying the permitting process. They will also be sharing their expansion plans and information on their service offerings. On the following pages, KOBID has provided a list of Internet Service Providers in Kansas. This list shows the regions that Internet Service Providers serve with qualifying broadband technology, if applicable.

Organization	Contact	Email	Location	Region
4 Rivers Electric Cooperative	Dennis Svanes		Fredonia, KS	NEK
Advantage Communications	Ron Mayes		Wichita, KS	
Aerux Broadband	Cory Andrus		Denver, CO	
AgPro Wireless LLC	Chad Ellis		Chrisman, IL	
Aire Communications Group, Inc.	Mark Ivie		Webb City, MO	
AEC Cooperative (Alfalfa Electric Cooperative)	Greg Goetz	ggoetz@aec.coop	Cherokee, OK	
Ark Valley Electric Cooperative	Jackie Holmberg		South Hutchinson, KS	SCK
AT&T	Jim Jamison Antonio Davis (Tony)	james.d.jamison@att.com ad5835@att.com	Dallas, TX	Kansas
Atwood TV	Bob Dunker	bobd@atwoodtv.net		NWK
Aureon Communications dba Alliance Connect, LLC	Scott Behn		Overland Park, Kansas	SEK, ECK
Benkelman Telephone Company Inc dba BWTelecom fka Hartman Telephone Company	Randall Raile		Benkelman, NE	NWK
Blackdragon Networks	Susan Nuss	admin@blackdragonnetworks.com	Jetmore, Kansas	SWK
Bluebird Network dba Missouri Network Alliance LLC	Michael Morey	jhorton@bluevalleyinc.net cwright@bluevalleyinc.net	Columbia, MO	ECK
Bluestem Electric Cooperative	Michael M. Morton		Warnego, KS	
Brightspeed (Centurylink aka Apollo)	Pamela Sherwood Tucker Hickey John Idoux	pamela.sherwood@brightspeed.com tucker.hickey@brightspeed.com john.idoux@brightspeed.com	Fort Riley, Gardner, Hutch, JC, Lawrence, Olathe, Topeka	ECK, NEK, NCK, SCK, SEK, SWK
Brown-Atchison Electric Cooperative	Michael Volker	mvolker@baelectric.com	Horton, Kansas	NEK
Butler Coop (Butler Rural Electric Coop Assoc./Regional Media Corp)	Sarah Madden Kevin Brownlee	smadden@butler.coop kbrownlee@butler.coop	El Dorado, Kansas	SCK
Caney Valley Electric Cooperative	Allen Zadorozny		Cedar Vale, KS	SEK
CBTS Technology Solutions LLC (Cincinnati Bell)	Ted Heckmann	ted.heckman@cinbell.com	Cincinnati, OH	
Chanute, City of	Todd Newman	TNewman@chanute.org	Chanute, KS	SEK
Charter Communications, Inc.	Dayton Murty Jarad Falk	dayton.murty@charter.com jarad.falk@charter.com	Kansas City, KS	NEK
Chisholm Broadband, LLC	Isaac Harris		Enid, OK	
CMS Electric Cooperative	Kirk Thompson	kthompson@cmselectric.com	Meade, Kansas	SWK
Coffeyville Connection	Chris Felix	cfelix@coffeyville.com	Coffeyville, Kansas	SEK
Cogent Communications	David Schaeffer	dc@cogentco.com	Washington, DC	ECK
Columbus Communications Services (Columbus Telephone Company) aka Optic Communications aka Fiber Communications of Columbus	Dave Soper Gene Hamilton	dsoper@columbus-telephone.com ghamilton@columbus-telephone.com	Columbus, Kansas	SEK
Comcast	Tom Krewson Karly Werner	tom_krewson@comcast.com karly_werner@cable.comcast.com	St. Paul, MN	
Communications Coalition of Kansas	Erik Sartorius	erik@ccofkansas.com	Topeka, Kansas	NEK

Consolidated Communications	Floyd Jasinski	floyd.jasinski@consolidated.com	Kansas City, KS	NEK
Cox Communications	Craig Young Ken Burgess Kevin McNulty Megan Bottenberg	craig.young@cox.com kevin.mcnulty2@cox.com ken.burgess@cox.com megan.bottenberg@cox.com	Atlanta, GA	ECK, NCK, NEK, Central, SCK, SEK, SWK
Craw-Kan Telephone Cooperative	Brian Davied Craig Wilbert	brian.davied@crawkan.net crwilbert@ckt.net	Girard, Kansas	SEK
Crazy Communications	Joseph Brunner	joseph.brunner@pinionglobal.com	Hutchinson, Kansas	SEK
Crown Castle Fiber LLC	Staci L. Pies		Houston, TX	
Cunningham Telephone Co (CTC Fiber)	Brent Cunningham	brent@ctcfiber.net	Glen Elder, Kansas	NCK
Diller Telephone Co aka Diode Cable Company	Randy Sandman		Diller, NE	NEK
Doniphan Electric Cooperative	Michael Volker	mvolker@donrec.org	Troy, Kansas	NEK
DS&O Electric Cooperative	Ken Hedberg	khedberg@dsoelectric.com	Solomon, Kansas	Central
Eagle Communications	Gary Shorman	gary.shorman@eaglecomm.net	Hays, KS	SWK
EarthLink Business, LLC	Joseph Trahan		Atlanta, GA	
Edgar Rental Corp/ERC Communications	Dennis Shuck		Edgar, NE	
Elkhart Telephone Co., Inc. dba Epic Touch	Becky Scott Becki Richardson	bscott@epictouch.com brichardson@epictouch.com	Liberal, Kansas	SWK
Everfast Fiber Networks	Danny Aldaco Adam Carey Dado Slezak	danny.aldaco@everfastfiber.com adam.carey@everfastfiber.com dado.slezak@everfastfiber.com	Lenexa, Kansas	NEK
Flint Hills Rural Electric Cooperative	Chuck Goeckel		Council Grove, Kansas	NEK
FreeState Electric Cooperative	Chris Parr		Topeka, Kansas	NEK
Fusion Connect fka Birch Communications	Jon Kaufman	jon.kaufman@isgcom.com	Atlanta, GA	ECK, Central, SWK
GoBrolly Communications	Jeff Axmann		Louisburg, Kansas	
Golden Belt Telephone Association, Inc. (GBT Communications)	Beau Rebel Drew Clarke Kyle Bahr Kara Jecha	Brebel@gbtlive.com dclarke@gbtlive.com kbahr@gbtlive.com kjecha@gbtlive.com	Rush Center, Kansas	NWK
Google Fiber Kansas	Rachel Merlo	rachelmerlo@google.com	Kansas City, KS	NEK
Gorham Telephone	Michael Murphy	mmurphy@gorhamtel.com	Gorham, Kansas	NCK
Great Plains Communications, Inc.	Todd Foje		Omaha, NE	NCK
H&B Communications (H&B Cable)	Brandon Koch Robert Koch	brkoch@hbcomm.net robkoch@hbcomm.net	Holyrood, Kansas	NC
Haug Communications Inc.			Saint Joseph, MO	
Haviland Telephone Company	Diane M. Thompson Mark Wade	diane@havalandtelco.com mark@havalandtelco.com	Haviland, Kansas	SWK

Heartland Rural Electric Cooperative	Mark Scheibe		Girard, Kansas	SEK
Home Telephone Company (HCI Telcom)	Becki Regier Richard Baldwin Eric Norstrom	bregier@homecomminc.com rbaldwin@hci-ks.com enorstrom@hci-ks.com	Galva, Kansas	Central
IdeaTek	Daniel Friesen Carlee Parker	dfriesen@ideatek.com cparker@ideatek.com	Buhler, Kansas	SCK
Isotech, Inc. dba KCCoyote	Sean Goss		Kearney, MO	
JBN Telephone dba Giant Communications	Austin Taylor Mark Wade	ataylor@giantcomm.net mark@havilandtelco.com	Holton, Kansas	NEK
JMZ CORPORATION dba KwiKom Communications dba WANRack fka Pixius fka Valnet fka Twinmounds	Zach Peres David Stoffer Eric Vogel John Terry	david.soffer@wanrack.com evogel@kwikom.com jterry@kwikom.com	Iola, Kansas	NEK, Central, SCK, SEK
KAMO Electric Cooperative	Ted Hilmes		Vinita, OK	
Kanokla Communications	Jill Kuehny	jkuehny@kanoklanetworks.com	Caldwell, Kansas	SCK
Kansas Broadband Internet, Inc. fka Kansas Data Internet	Scott Rosebrook		Salina, KS	
Kansas Cable Telecommunicatons Association	John Federico	john@federicoduerst.com	Topeka, Kansas	NEK
Kansas Electric Power Cooperative (KEPCo)	Suzanne Lane		Topeka, Kansas	NEK
Kansas Rural Communications	Matt Ahlstedt	mahlstedt@ksrural.com	Hutchinson, Kansas	SCK
Kansas Telecommunications Industry Association	David Rosenthal		Topeka, Kansas	NEK
King Street Wireless, L.P.	Allison Cryor DiNardo		Alexandria, VA	ECK
KsFiberNet	Mike Morrissey	mmorrissey@ksfiber.net	Overland Park, Kansas	NEK
La Harpe Telephone Company (New Wave Broadband)	Harry Lee	harry.lee@laharpetel.com	La Harpe, Kansas	SEK
Lane-Scott Electric Cooperative	Richard McLeon		Dighton, KS	SWK
Level 3 fka Centurylink dba Lumen	Melissa Mann	melissa.mann@lumen.com	Monroe, LA	
LTD Broadband LLC	Cory Hauer		Las Vegas, NV	
Madison Telephone Company (MT Networks) (MTC)	Diantha Steutsman Shana Rains Nathan DeWitt Rob McDonald	mtn.diantha@gmail.com mtn.robmcdonald@gmail.com mtn.shana@gmail.com mtn.nathandewitt@gmail.com	Madison, Kansas	SEK
Mediacom dba MCC Missouri LLC	Steven Bennett	sbennett@mediacomcc.com	Topeka, Kansas	NEK
Mercury Broadband dba Mercury Wireless Kansas, LLC	Matthew Sams	matthew.sams@mercurywireless.com	Overland Park, Kansas	NEK
MIDCO fka Midcontinent Communications fka Wide Open West	Andrew Curley	andrew.curley@midco.com	Sioux Falls, SD	ECK, NEK
Midwest Energy, Inc.	Pat Parke		Hays, KS	
MoKan Dial, Inc. (Townes Telecommuncations, Inc.)	Chase Custer	ccuster@townes.net	Louisburg, Kansas	NEK
Mutual Telephone Company (MTC)	John Tietjens	jtietjens@mtc4me.com	Little River, Kansas	Central
Nautilus Net		Nautilus@nautilus.net		
Nemaha-Marshall Electric Cooperative	Kathleen M. O'Brien	kmobrien@nemaha-marshall.coop	Axtell, Kansas	NEK
NetFortris Acquisition Co., Inc.	Gene Carr	gcarr@telekenex.com	Plano, TX	NEK

Network Billing Systems LLC (Fusion Connect)	Jon Kaufman	jon.kaufman@isgcom.com	Wayne, NJ	ECK, Central, SWK
Network Tool and Die Company, Inc.	Kurt Friesen		North Newton, KS	
Nex-Tech dba Moundridge Telephone Co. dba Rural Telephone Service Company, Inc.	Sommer Smith	sommer@mtelco.net	Moundridge, Kansas	Central
Nex-Tech (dba Rural Telephone Service Company)	Mike Pollock Stacey Stults Jimmy Todd	mpollock@nex-tech.com sstults@nex-tech.com jtodd@nex-tech.com	Lenora, Kansas	NWK
Nextlink Internet/AMG Technology Investment Group	Claude Aiken	caiken@team.nxlink.com	Auburn Hills, MI	NCK, NEK, Central, SCK, SWK
Nexus Air Fiber	Stephen Howe	info@nexusairfiber.com	Oak Grove, MO	
Ninnescah Electric Cooperative	Teresa Miller		Pratt, KS	SCK
North Central Kansas Community Network (NCKCN)	Jenny (Heidrick) Russell	rced@nckcn.com	Beloit, Kansas	NCK
One Point Technologies Inc. (Blue Valley Telecom)	Jerry Horton Candace Wright	jhorton@bluevalleyinc.net cwright@bluevalleyinc.net	Home, KS	NEK
Optic Communications	Daniel Keating	sales@optic-communications.com	Columbus, Kansas	SEK
Packet Layer Consulting	Benjamin McDowell	support@packetlayer.com	KCK	NEK
Peoples Telecommunications	Jennifer Leach	jennifer@peoplestelecom.net	LaCygne, Kansas	ECK
Pioneer Electric Cooperative	Stephen J. Epperson		Ulysses, Kansas	NWK, SWK
PIONEER TELEPHONE ASSOCIATION INC (Communications) (PTCI); PGB Fiber; High Plains Telecommunications	Bravane Phelps Kasy Kruger Sheri King	bravane.phelps@piocomm.net Kkasey.krueger@pioncomm.net Sheri.king@pioncomm.net	Ulysses, Kansas	SWK
Plains Internet	Chris Coleman	customersupport@plainsinternet.com	Amarillo, TX	NWK
Prairie Land Electric Cooperative	Kirk Girard		Norton, KS	NWK
Rainbow Telecommunications	Angie Kreider	angie@rainbowtel.com	Everest, Kansas	NEK
Rebeltec Communications LLC	Barry Mayhan	tech@rebeltec.net	Kearny County, Kansas	SWK
Resound Networks, LLC	Tyson Curtis		Pampa, TX	
RG Fiber (previous name) NOW: Clearwave Fiber	Garren Hardy Ken Van Patten	garren.hardy@rgfiber.com ken.vanpatten@clearwavefiber.com	Baldwin City, Kansas	NEK
Ricketts LLC	Breck Ricketts		Edwardsville, KS	
Rise Broadband	Ronald Gray	info@risebroadband.com	Topeka, Kansas	NEK
Rolling Hills Electric Cooperative	Michelle Brokes		Beloit, KS	NCK
S&A Telephone Company	David Shipley Josh Reece	dshipley@usch.com jreece@usch.com	Allen, Kansas	NEK
S&T Telecomm Services	Zack Odell	zack.odell@sttelcom.com	Brewster, Kansas	NWK
SC Telecommunications (South Central Telephone)	Carla Shearer	cshearer@sctelcom.com	Medicine Lodge, Kansas	SCK, SWK

Sedgwick County Electric Coop	Scott Ayers	sayres@sedgwickcountyelectric.coop	Cheney, Kansas	SCK
Sentco (Southeast Nebraska Communications)	Dorothy J Towel	snc@sentco.net	Falls City, Nebraska	NEK
Sho-Me Technologies		ablanton@shometech.com	Marshfield, MO	
Skybeam, LLC fka KeyOn Communications	Jim O'Brien		Englewood, CO	
Socket Telecom	Matt Kohly	rmkohly@sockettelecom.com	Columbia, MO	
Sparklight/Cable One	Julie Laulis		Parsons, Kansas	SEK
Splash Wireless		support@splashwirelessinternet.com	Richland, MO	
Spry Wireless	Paula McKnight	support@sprywireless.com	Buda, TX	
St. Joe Wireless	Bill Bollenbaugh	billb@stjoewireless.com	St. Joseph, MO	
Stouffer Communications			Neosho, MO	
Suddenlink Communications dba Optimum	Donald Vance		Wichita, KS	ECK, SCK, SEK
Sumner Communications			Wellington, Kansas	SCK
Sumner-Cowley Electric Cooperative	Coni Adams		Wellington, Kansas	SCK
Sunflower Electric Power	Todd Hillman		Hays, KS	NWK
Superior Inet			Edger, NE	
TC Wireless, Inc. (TCW)	Angela Schwerdtfeger	aschwerdtfeger@tctainc.net	Council Grove, Kansas	NCK
TELXP Communications	Rabia Shiekh		Tulsa, OK	
TCA Telecommunications	Kate Young	kyoung@tcatel.com		
T-Mobile USA, Inc. fka Sprint			Overland, KS	Kansas
Totah Telephone Company	Mark Gailey	mark@totahcomm.com	Ochelata, OK	SEK
Tri-County Electric Cooperative	Zac Perkins		Hooker, OK	NCK, NEK, SCK, SEK
Twin Valley Electric Cooperative	Angie Erickson		Altamont, KS	NCK, NEK
Twin Valley Family of Companies (communications; Telephone, Inc) (Southern Kansas Telephone (SKT)	Traci Thompson	traci.thompson@tvvinc.net	Clearwater, Kansas	Central, SCK, SEK
United Telephone Association	Todd Houseman	toddh@unitedtelcom.net	Dodge City, Kansas	SWK
UPN Fiber (Unite Private Networks)	Michael Dillingham	upnscreening@upnfiber.com	Kansas City, MO	ECK, NCK, NEK, SWK
United States Cellular Corporation (TDS)	Justin Frakes	justin.frakes@uscellular.com	Chicago, IL	NCK, NEK, SCK, SEK
USA Connections	Paul Schauer	paul@intertech.net contactus@usacommunications.tv	Wellington, Kansas	SCK
ValuNet	Stormy	info@myvalunet.com	Emporia, Kansas	ECK
Velocity Broadband		info@velocity.coop	El Dorado, Kansas	SCK
Verizon	Michael McDermott	michael.mcdermott@verizonwireless.com	Kansas City, KS	NEK

Viaero Wireless	Ron Christensen		Hays, KS	NWK
Victory Electric Cooperative	Shane Laws		Dodge City, Kansas	
Vyve Broadband	Jordan Hume	jordan.hume@vyvebb.com	Abilene, Kansas	Central
Wake Wireless		support@wakewireless.com	Bartlesville, OK	
Wamego Telecommunications Company, Inc. (WTC)	Jeff Wick Devin Weis	jwick@wtcks.com dweis@wtcks.com	Wamego, Kansas	NEK
Wave Wireless	Sandy Manners	support@wavewls.com	Parsons, Kansas	SEK
Western Electric Cooperative	Tom Ruth		WaKeeney, KS	NWK
Wheat State Telephone	Randy Hoffman	rhoffman@wheatstate.com	Udall, Kansas	SCK, SEK
Wheatland Electric Coop (WECI)	Bruce Mueller		Scott City, KS	SWK
Wicked Broadband	Daniel Parish	daniel.parish@wickedbroadband.com	Lawrence, Kansas	NEK
Wifinity, LLC	Jeremy Goodell			
Wilson Communications	Craig Freeman Robert Grauer	craig.freeman@wilsoncom.net support@wilsoncom.us	Wilson, Kansas	NCK
Windstream Communications	Kristi Moody	kristi.moody@windstream.com	Lenexa, KS	NEK
Wisper ISP	Nathan Stooke	nstooke@wisperisp.com	Mascoutah, IL	ECK, NEK, SEK
WISP-Router	Eje and Beverly Gustafsson		Frontenac, KS	
Zayo Group	William McConnell	regulatorytax@zayo.com	Boulder, Colorado	ECK, Central
Zenda Telephone	Kathy Price	kprice@zendatelephone.com customercare@zendatelephone.com	Zenda, Kansas	SCK
Zito Media	Marie Hauer	info@zitomedia.com	Liberal, Kansas	SWK
Zoom Fiber	Kameron Klein	support@zoomfiber.com	De Soto, Kansas	ECK

Meeting with local providers is a great opportunity to learn about their plans for your community and to weigh if they are the right fit for a public-private partnership. Some questions to ask could include:

Have you developed plans for our community's unserved and underserved locations?

- Learn if the provider has developed thoughtful plans for your community that take your unique needs into account.

What is your timeline for delivering qualifying broadband service to our community's unserved and underserved locations?

- Understand when to expect qualifying broadband service in your community. This will help with tracking the progress of BEAD and managing expectations.

What technology are you planning to deploy to our community?

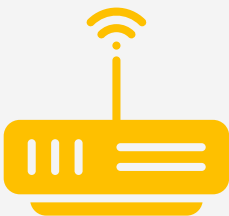
- BEAD specifies Priority Broadband Projects as Fiber-to-the-Home (FTTH) as the preferred technology. BEAD specifies Other Broadband Projects as technologies that are not FTTH such as Fixed Wireless and Coaxial (CATV) technologies. Digital Subscriber Line (DSL – Telco Copper) is not an acceptable technology.

Do you need assistance with local or state Permitting, Rights-of-Way, Pole Attachments, Railroad Crossings, or other Easement needs to reach the unserved and underserved locations?

- Ask this question to give you an opportunity to streamline construction deployment, which is attractive to Providers. This will help you gauge your community's need to sign up for Kansas Broadband Ready Communities.

What can we as a community do to help drive adoption?

- Ask this question to show that you are willing to be a good partner by helping Providers receive a return on their investment.
- Providers may have suggestions and resources to help drive adoption in your community.



additional questions next page...

questions continued...

What are your rate plans? Low-cost options? What are your terms and conditions, service commitments and billing formats?

- Ask this question to help you know what to expect for your community's broadband adoption efforts.
- Subgrantees are required to participate in the Affordable Connectivity Program or any successor program, and eligible subscribers that are eligible for a broadband service subsidy can apply the subsidy to the proposed service option.
- For the BEAD program, KOBD requires a Low-Cost Option broadband service as a plan that is \$30 per month or less to qualify for BEAD funding. All recurring fees include monthly subscription, Wi-Fi router or modem fees, and any taxes or surcharges applied. No charges for repair or maintenance of qualified broadband service will be allowed. No charges will be allowed for installation. For ACP participants, the net end-user cost would be zero dollars (\$0) and then the barrier for affordability is eliminated and adoption of qualifying broadband service for participation in the digital world is stimulated. To be eligible to receive maximum points for affordability, the prospective subgrantees must provide the recommended service plan to the entire proposed Project Funding Area and all prospective customers within.

How will you support digital literacy/education after deployment?

- Digital literacy is the ability to leverage current technologies, such as smartphones and laptops, and Internet access to perform research, create content and interact with the world
- Ask this question to gauge Provider's plans for user technical support, beyond technical support for the Provider's network-user app.

For more examples of questions to ask, we have included the NTIA's Interview Guide for meetings between State Broadband Offices and Internet Service Providers.



Interview Guide—Meetings with Internet Service Providers

Coordination with various groups, such as Internet Service Providers (ISPs), is necessary to meet the requirements outlined in the Broadband Equity, Access, and Deployment (BEAD) Five-Year Action Plan and the planning documentation required by the State Digital Equity Planning Grant program.

This interview guide is a tool to assist State/Territory (S/T) Broadband Offices in preparing for and engaging with interested parties to further an understanding of high-speed internet availability in their respective areas. It provides direction for initial discussions and is not comprehensive of all topics that an S/T may need to discuss.

The guide will 1) frame why meeting with ISPs is important, 2) help prepare a meeting agenda and targeted outcomes, as well as 3) provide best practices for preparing for and conducting meetings with ISPs.

Why Engagement Matters

Successful S/T Broadband Office engagement with ISPs relies on open and transparent communication aimed at gaining an understanding of ISP interests and involvement. An extra focus on the positive impacts of digital equity and how ISP efforts will underscore the importance of digital inclusion should also be considered in engagement. Engaging with ISPs is important because it:

- Opens dialogue to better identify and understand priorities and needs
- Develops early buy-in for implementation approaches and high-speed Internet plans
- Includes diverse expertise and experiences
- Encourages transparency, which builds trust by demonstrating responsible stewardship of state and local resources and
- Expands awareness of BEAD and the Digital Equity Act programs, mobilizing others to act collectively.

Understanding ISPs

Collaboration with ISPs and telecommunication organizations – and trade associations that represent these entities - is highly important for the success of the BEAD and Digital Equity programs, as many will be subgrantees, cost-sharing partners, or project vendors. Some ISPs will be eager to participate in achieving BEAD and Digital Equity goals, while others may have conflicting interests or hesitation.

ISPs may also be participants in the Enabling Middle Mile Broadband Grant Program, therefore getting background details on their larger broadband engagement across the region and neighboring S/Ts is important. S/T Broadband Offices will also want to consider the level of competition for service across the area to better understand ISP involvement.

Industry Segment Types

Retail internet providers:

- Traditional private telephone companies and cooperatives
- Cable companies
- Municipal Providers
- Electric cooperatives
- Wireless Internet Service Providers (WISPs)

Ancillary industry groups:

- Internet Backbone Providers & Local Construction Companies
- Internet Equipment Providers
- Server and Data Center Operators

High-Level Meeting Agenda and Targeted Outcomes

Pre-Meeting Preparation

Basic logistics should be considered and discussed prior to meeting. **Figure Figure 1** captures key elements to consider when conducting an in-person, virtual, or hybrid meeting.

IN-PERSON		VIRTUAL		HYBRID
LOCATION	EQUIPMENT	SOFTWARE & LOGISTICS	EQUIPMENT	<i>Combine in-person and virtual elements to meet physical and technological constraints of attendees</i>
<ul style="list-style-type: none"> Consider location access details (ADA accessibility, parking, ability to physically distance) Provide directions for finding the meeting room once on site Include enough seating for all participants Communicate current health protocol guidance (masking, testing) Set up closed captions or make other considerations for multiple languages 	<ul style="list-style-type: none"> Evaluate what AV needs the meeting has (projector, screen, conference speakers) Determine if participants can access location Wi-Fi and prepare guidance for how to access it 	<ul style="list-style-type: none"> Understand web applications participants are familiar with using (Zoom, WebEx, Teams, etc.) Note if any constraints exist for using the selected application (free versions available, time limits on use) Offer to start the meeting earlier for those wishing to check their connection 	<ul style="list-style-type: none"> Share information on what video/camera technology, software, or connectivity is needed (or preferred) for participation Plan for an alternate method to participate if technology or access issues arise (call-in number or different video application) Set up the virtual meeting to include a transcript that is made available to all participants after the meeting 	

Figure 1 - Meeting Formats and Considerations

Note: Meeting planning should not be one-sided. While the S/T Broadband Office might suggest one venue or software for the meeting, remaining open to alternatives proposed by the ISP may assist scheduling.

Evaluate Meeting Logistics

Once the S/T Broadband Office has established whether the meeting is in-person, virtual, or hybrid of the two, evaluate the meeting logistics.

- Number of Voices:** Meetings with an individual participant group are preferable as the focused format invites more open, detailed, and transparent dialogue. If a meeting has numerous groups participating, consider the potential impact on the level of details gathered for the selected topics.
- Availability:** Consider using a polling application (i.e., Doodle, Calendly) to determine attendee availability. If the meeting topic allows, consider offering multiple sessions or formats for attendees to participate.
- Meeting Size:** Plan for meeting space in accordance with the size of the planned engagement. Understand who the ISP's want to bring into the meeting and the size of the group.
- Duration:** Assess questions in the Discussion Guide from the context of the meeting timeframe, realizing that one question posed to several groups may take as long as several questions posed to a smaller group.

Agenda Topic	High-level Objective
Welcome & Introductions	➤ <i>Review meeting purpose, set expectations/desired outcomes and facilitate participant introductions, to include position and role in planning and implementation processes.</i>
Review Meeting Goals	➤ <i>Set expectations / desired outcomes as it relates to the meeting purpose and agenda</i>
BEAD & Digital Equity Overview	➤ <i>Brief overview of the S/Ts planning and implementation phases, to include a high-level review of program timelines.</i>
Understanding Industry Perspective	➤ <i>Understand the attendees' experience in broadband infrastructure planning through the lens of selected topics and seek to understand priority concerns.</i>
Feedback & Next Steps	➤ <i>Provide a feedback mechanism to capture additional input following the meeting and establish future engagement.</i>

Prepare Agenda in Advance

Developing and sharing an agenda in advance of meetings will help inform attendee perspective, set expectations about discussion areas, and bring the right participants to the table. Below is a sample agenda S/Ts can use to shape ISP discussions. *Note:* S/Ts can modify the agenda as needed.

Establish Targeted Outcomes

ISP engagement should seek to advance one or several of the following objectives:

- Establish relationship and rapport between the ISP and the S/T Broadband Office
- Provide a uniform, base understanding of the BEAD and Digital Equity programs
- Share the S/T's planning and implementation timelines and ongoing engagement plans
- Gain high-level understanding of the ISP's interest and participation in deployment, priority concerns, and potential participation in other programs, such as the Enabling Middle Mile Broadband Program
- Establish feedback mechanisms to capture additional input

Discussion Guide

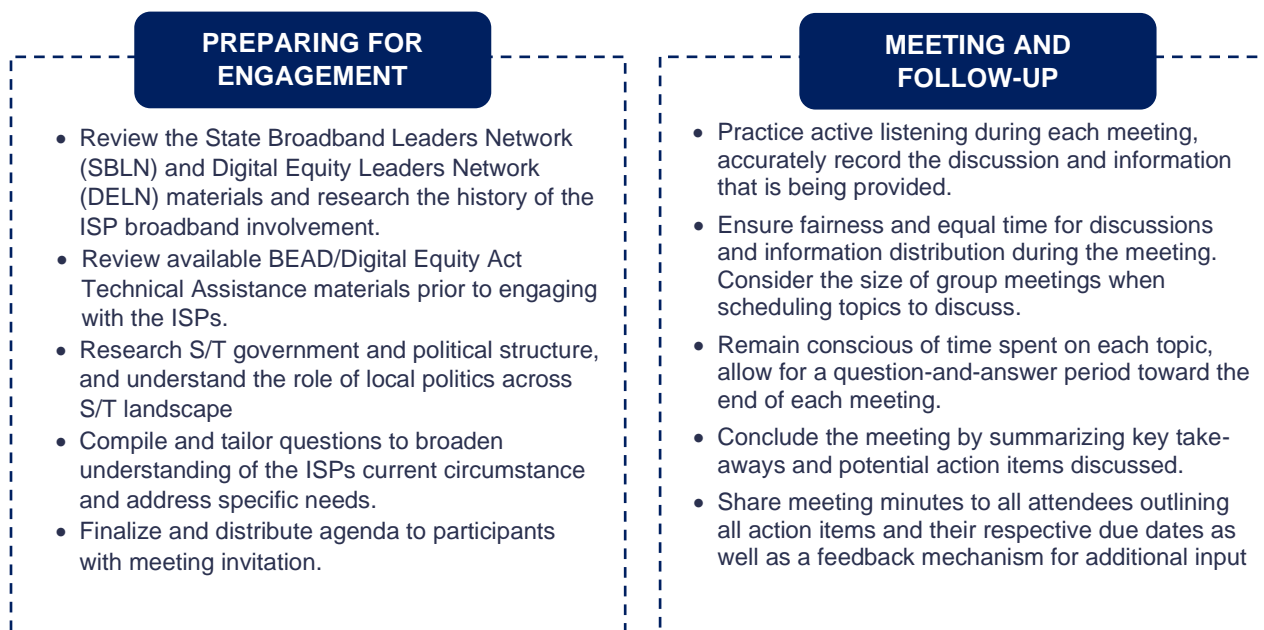
Below are sample questions to help guide conversations based on the sample agenda above. Questions aim to elicit understanding of the ISP perspective and may be tailored, as needed.

Welcome and Introductions	
Guidance:	Discussion Questions:
<i>Discuss the meeting's purpose and ask all attendees to provide a personal introduction.</i>	<ul style="list-style-type: none"> • <i>With participant introductions, also inquire as to the ISP's footprint and range within the S/T and how they are organized (ex: co-op, commercial company, etc.).</i>
Review Meeting Goals	
Guidance:	Discussion Questions:
<i>Set meeting expectations and desired outcomes as it relates to the meeting purpose and agenda.</i>	<ul style="list-style-type: none"> • <i>Gather from the participants their expectations going into this meeting.</i> • <i>Address their expectations head on and lead with the S/T's own purpose and desired outcome for the meeting, being specific and transparent.</i>

BEAD & Digital Equity Overview	
Guidance:	Discussion Questions:
<i>Provide overview of the S/T's planning and implementation phases for each program, to include a high-level review of program timelines. Can discuss Broadband Maps and the challenge process at a high-level.</i>	<ul style="list-style-type: none"> • <i>What is the broader industry perspective of the current state of the network across the S/T? What is the ISP's perspective on the current broadband environment?</i> • <i>How aware is the ISP of BEAD and Digital Equity objectives and timelines?</i> <p><i>Information: BEAD Program, Digital Equity Program, Digital Inclusion Startup Guide, FCC Broadband Data Maps</i></p>
Understanding ISP Perspective on...	NOTE: Questions may be tailored and meeting timeframe should be taken into account when choosing number of topics to cover and volume of questions to ask.
Guidance:	Discussion Questions:
<u>S/T Collaboration with ISPs</u>	
<i>Gather information on what engagement is taking place, or planned to take place, with ISPs. Document relevant points of contact mentioned.</i>	<ul style="list-style-type: none"> • <i>What is the current state of the ISP relationship with the S/T? What concerns or issues are paramount?</i> • <i>Is there any known legislation complicating broadband implementation efforts across the S/T? If so, what impact is the ISP concerned about?</i> • <i>Is the ISP working on any legislation for upcoming sessions? If so, how does the ISP plan to address?</i> • <i>What other types of restrictions would impede the ISP from engaging in BEAD or Digital Equity? Are there other pressing concerns not yet discussed?</i>
<u>ISP Collaboration with Local Government Entities (LGEs)</u>	
<i>Inquire if attendees have developed plans to engage with Local Government Entities (LGEs)</i>	<ul style="list-style-type: none"> • <i>Has the ISP worked with LGEs in the past on prior grants or partnerships?</i> • <i>Does the current regulatory environment constrain potential BEAD and Digital Equity Act program participants from engaging with LGEs?</i> • <i>Does the organization participate on any S/T advisory councils or similar groups?</i>
<u>Workforce</u>	
<i>Encourage conversations regarding workforce issues (e.g., Community Anchor Institutions and Industry).</i>	<ul style="list-style-type: none"> • <i>What opportunities does the industry organization see for the S/T, BEAD and Digital Equity to support advancing workforce initiatives?</i> • <i>What workforce planning initiatives are currently taking place across the industry organization? How mature are they and how are they funded?</i> • <i>What is the ISP's plan to hire a skilled and diverse workforce?</i>
<u>Digital Equity</u>	
<i>Inquire if attendees have developed plans for the provision of equitable broadband services to middle and low-income communities.</i>	<ul style="list-style-type: none"> • <i>What unique challenges has the organization faced in working with unserved and underserved areas?</i> • <i>Does the organization have an outreach plan for digital inclusion efforts?</i> • <i>Does the ISP plan to participate in the Affordability Connectivity Program (ACP)? If not, how would the ISP offer a low-cost service plan? Does the ISP have any other plans on addressing affordability issues?</i>

	<ul style="list-style-type: none"> • <i>How is the ISP currently marketing ACP or other low-cost plans to customers?</i> • <i>What are the corporate and social responsibility programs as it relates to digital equity?</i> • <i>What are the current or potential collaborations with local communities (e.g., CBOs, CAIs, faith-based institutions, health organizations, etc.)</i> • <i>What are the current or potential efforts to expand access in areas that have been excluded from investment?</i>
Feedback & Next Steps	
<p><i>Capture TA assistance concerns, ask for feedback, and plan next meeting</i></p>	<ul style="list-style-type: none"> • <i>What resources or guidance is needed for the future?</i> • <i>What kind of technical assistance is needed for the future?</i> • <i>What kind of outreach activities or events are needed for the future?</i>

Best Practices for Successful Engagement



Digital Equity 101

The Digital Equity Act provides \$2.75 billion to establish three grant programs that promote digital equity and inclusion. They aim to ensure that all people and communities have the skills, technology, and capacity needed to reap the full benefits of our digital economy. KOBD recognizes that to connect all Kansans, communities must also have the ability to access devices to use and skills to support appropriate digital use.

Digital Equity



the condition in which all individuals have the information technology capacity needed to fully participate in society, democracy, and the economy.

Digital Divide



describes the gap between those who have affordable access, skills and support to effectively engage online and those who do not.

Digital Inclusion



refers to the activities necessary to ensure all individuals and communities, including the most marginalized, have access to and use of information technology.

The term digital inclusion means the activities necessary to ensure all individuals in the United States have access to, and the use of, affordable information and communication technologies, such as —

- Reliable fixed and wireless broadband internet service;
- Internet-enabled devices that meet the needs of the user; and
- Applications and online content designed to enable and encourage self-sufficiency, participation, and collaboration; and

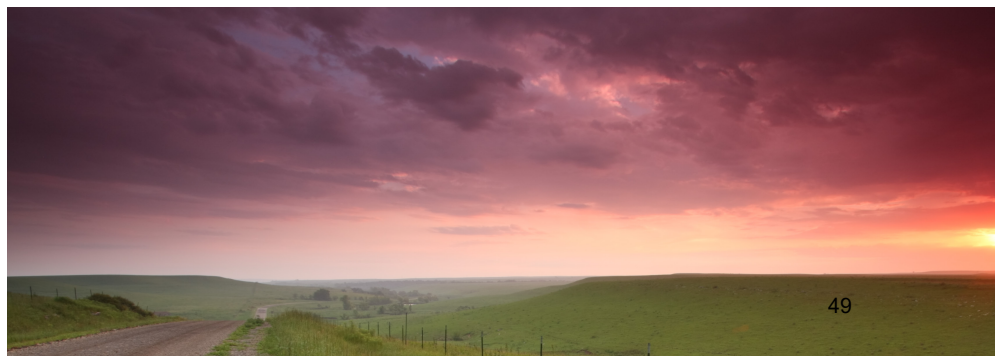
Includes—

- Obtaining access to digital literacy training;
- The provision of quality technical support; and
- Obtaining basic awareness of measures to ensure online privacy and cybersecurity

The following pages from the NTIA provide more detail on Digital Equity and how it ties into connecting your community.

KIMBERLYN JONES
DIGITAL OPPORTUNITY PROGRAM MANAGER
KIMBERLYN.JONES@KS.GOV

- Are there affordable internet options?
- Do people have access to devices beyond mobile?
- Are there digital skills classes happening in your community?
- Please share information about classes, connectors and champions with KOBD



DIGITAL EQUITY ACT PROGRAMS OVERVIEW

FUNDED BY THE BIPARTISAN INFRASTRUCTURE LAW

Where we are today...

Many Americans lack access to affordable, reliable, high-speed Internet

America runs on high-speed internet. A strong internet connection powers our economy and supports education. It fosters better public health. And, it connects loved ones and strengthens social ties. But not everyone is connected. Too many Americans are cut off from the opportunities that high-speed internet makes possible. That's why we're working to bring high-speed internet to all Americans.

... and where we're going

The Digital Equity Act includes \$2.75B to drive digital inclusion and equity

Funded by the Bipartisan Infrastructure Law, the Digital Equity Act Programs are planning and implementation programs that provide funding to promote digital inclusion and advance equity for all. They aim to ensure that all communities can access and use affordable, reliable high-speed internet to meet their needs and improve their lives. The three programs include two state formula programs and one competitive program.

Select Digital Equity programs details

Three federal grant programs

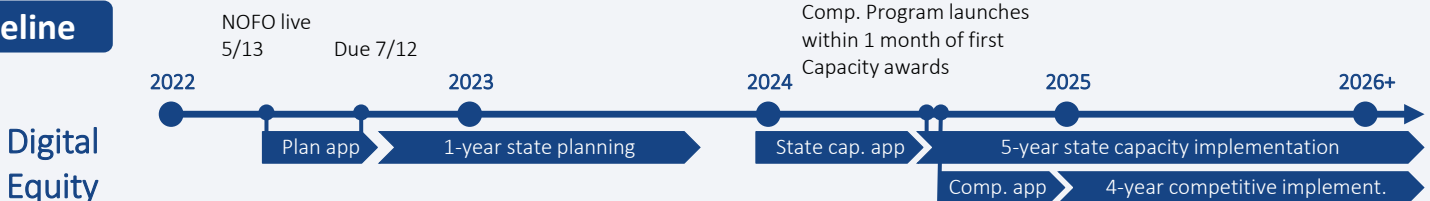
- 1 State Planning Program: A \$60M formula grant program for states, territories, and tribal governments to develop digital equity plans.
- 2 State Capacity Program: A \$1.44 billion formula grant program for states, territories, and tribal governments. It will fund an annual grant program for five years in support of digital equity projects and the implementation of digital equity plans.
Note: US territories other than Puerto Rico and Tribal / Native entities have separate funding allocations and different programmatic requirements for the State Planning and Capacity Programs
- 3 Competitive Program: A \$1.25 billion competitive grant program. It will fund an annual grant programs for five years to implement digital equity projects. Several types of entities can apply for these funds.

Example eligible uses of funds

- 1 Develop, implement, and oversee digital equity plans
- 2 Make awards to other entities to help in developing digital equity plans
- 3 Improve the online accessibility and inclusivity of public resources
- 4 Implement digital equity plans and digital inclusion activities
- 5 Provide digital literacy and skills education to covered populations
- 6 Facilitate the adoption of high-speed Internet by covered populations

Timeline

Timeline approximate unless exact date specified



Adoption

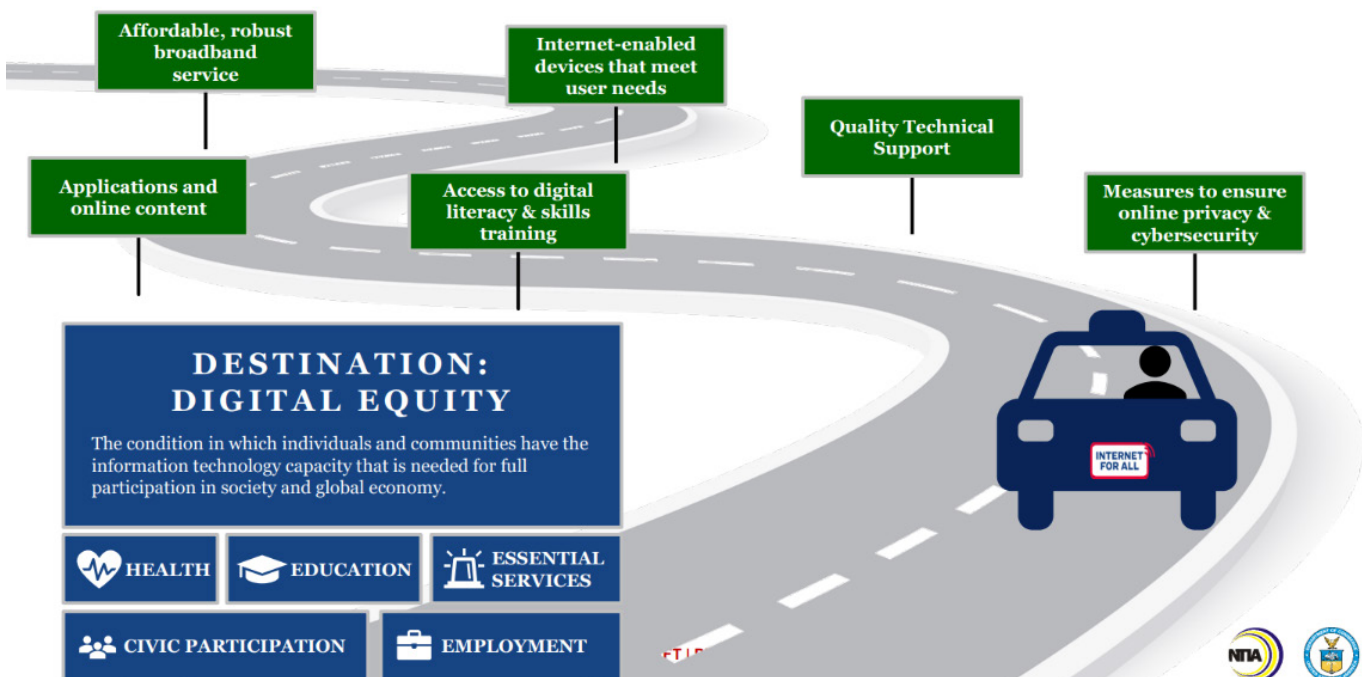
Broadband adoption is the process through which individuals access the internet daily, whether in their home or in public.

Promoting and encouraging broadband adoption is important to close the digital divide. It also helps ensure that Internet Service Provider partners can maintain their networks by receiving a return on their investment.

Educating the public on the importance of a broadband connection goes a long way to ensure adoption, as does understanding potential barriers to adoption.

The following information from the NTIA helps communities consider barriers to adoption and ways to address them.

Digital inclusion activities collectively build to advance and ensure digital equity & improve outcomes for unconnected communities



Why High-Speed Internet Matters



Government Services

High-Speed Internet helps government agencies improve quality, lower costs and increase transparency by improving internal operations and making it easier for residents to interact with them online.

Telework

High-Speed Internet allows teleworkers opportunities to more readily live and work in locations of their own choosing, without having to be within commuting distance of a corporate center or another base location.

Education

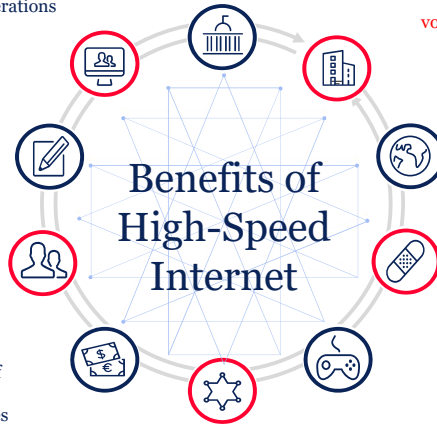
High-Speed Internet networks enhance educational experiences by providing students and teachers with access to an array of resources and the opportunity for distance learning.

Accessibility

High-Speed Internet is an important tool to address the needs of people with disabilities. Through various broadband-based applications and supporting technologies, people with disabilities have access to a new array of smart devices improving quality of life.

Economic Development

High-Speed Internet enables local communities, regions and nations to develop, attract, retain and expand job-creating businesses and institutions.



Community Development

High-Speed internet enables communities to come together to take collective action and generate solutions to common issues such as voting, registering to vote, volunteerism/community service, advocacy and activism, as well as engaging in city wide projects.

Environmental Sustainability

High-Speed Internet enables buildings to communicate with utilities and the energy market. Smart buildings and smart grids, hold great promise for greater efficiencies in energy consumption.

Healthcare

High-Speed Internet makes remote access to clinical services possible and cost-effective. It also allows physicians to monitor their patients through innovative home health devices.

Entertainment

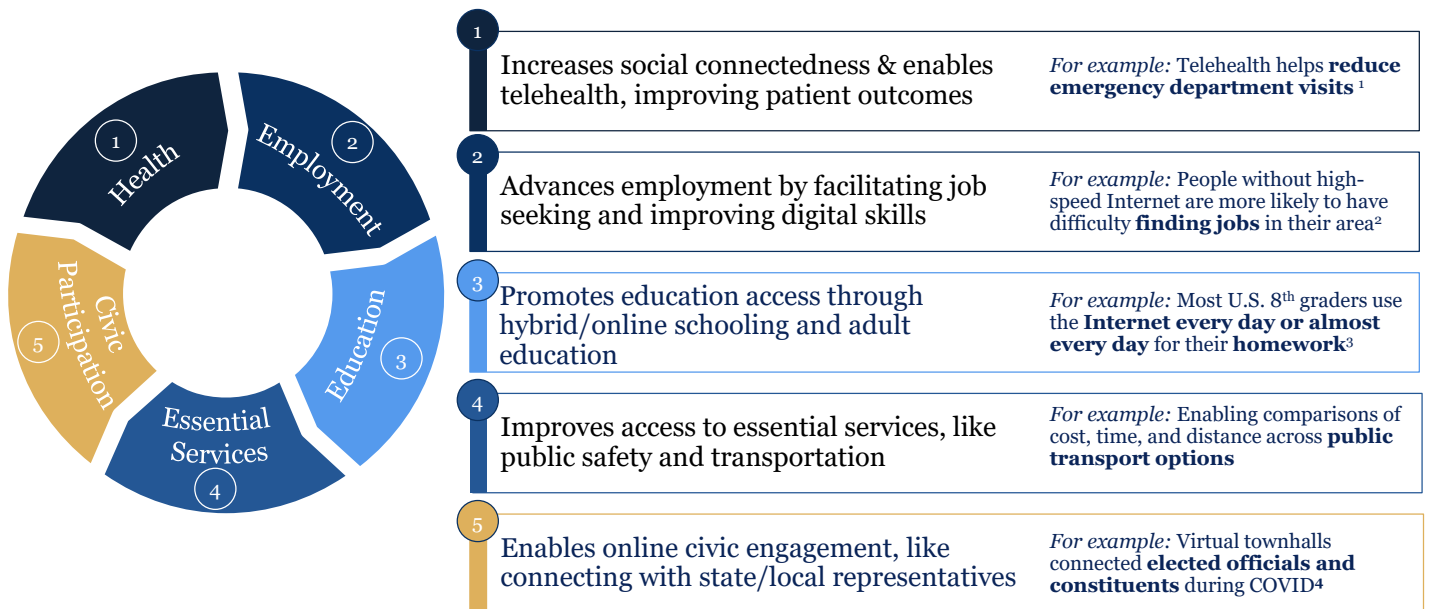
High-Speed Internet is essential to enjoy 21st-century entertainment. Streaming video, online gaming and connecting with friends and relatives via social media are only possible because of broadband.

Public Safety

Wireless broadband, is becoming indispensable to the interoperability of police, fire, health and other government entities in both day-to-day and crisis situations.



Defining Equity and Inclusion | Digital Equity is necessary for full society participation



Illustrative, non-exhaustive

1. Barton, J. (2018). *Promising telehealth initiatives highlight the need to close the digital divide*. Federal Reserve Bank of Texas. <https://www.dallasfed.org/cd/pubs/2018/telehealth> 2. Smith, A. (2015). *Lack of broadband can be a key obstacle, especially for job seekers*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2015/12/28/lack-of-broadband-can-be-a-key-obstacle-especially-for-job-seekers/> 3. Auxier, B. & Anderson, M. (2020). *As school close due to the coronavirus, some U.S. students face a digital 'homework gap'*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2020/03/16/as-schools-close-due-to-the-coronavirus-some-u-s-students-face-a-digital-homework-gap/> 4. Lacelle-Webster, A., Landry, J., & Smith, A. M. D. (2021). *Citizen voice in the pandemic response: Democratic innovations from around the world*. In G. Smith, T. Hughes, L. Adams, & C. Obijaku (Eds.), *Democracy in a pandemic* (pp. 155-168). University of Westminster Press. <https://www.istor.org/stable/pdf/i.ctv1v3gqz6.24.pdf>





Digital inequity disproportionately impacts our stakeholders

DE & BEAD

Covered Populations and **Underrepresented Communities**

Identity groups and communities disproportionately impacted by digital inequity

- | | | |
|--------------------------|--|--|
| Low-income households | Indigenous and Native American persons | People with language barriers |
| Aging individuals | Members of ethnic and religious minorities | Racial and ethnic minorities |
| Incarcerated individuals | Women | Rural inhabitants |
| Veterans | LGBTQI+ persons | Persons adversely affected by persistent poverty or inequality |
| Persons of Color | Persons with disabilities | |

Who is missing?

Factors that contribute to Inequities in digital adoption



Illustrative, non-exhaustive



Devices access

For example:

People of color are ~**10-15%** less likely to own a computer than white populations¹



Affordability

For example:

34% of lower income households² have had trouble paying for high-speed internet during the coronavirus outbreak³



Perceived value

For example:

70% of Seniors (65+) who are not online at home say they "don't need (it) or not interested"⁴



Existing inequities

For example:

Years of policies have limited generational wealth accrual in marginalized communities, driving **digital red-lining**⁴

Exact factors vary community to community—engage in localized research to understand the specific, unique drivers in your context

1. National Telecommunications and Information Administration. (2022). Digital nation data explorer. NTIA.gov. <https://ntia.gov/other-publication/2022/digital-nation-data-explorer#sel=laptopUser&demo=race&pc=prop&disp=chart> 2. Households making <\$30K annually 3. McClain, C. (2021). *34% of lower-income home broadband users have had trouble paying for their service amid COVID-19*. Pew Research Center. <https://www.pewresearch.org/fact-tank/2021/06/03/34-of-lower-income-home-broadband-users-have-had-trouble-paying-for-their-service-amid-covid-19/> 4. Communications Workers of America and National Digital Inclusion Alliance. (2020). AT&T's digital redlining: Leaving communities behind for profit. DigitalInclusion.org. https://www.digitalinclusion.org/wp-content/uploads/dlm_uploads/2020/10/ATTs-Digital-Redlining-Leaving-Communities-Behind-for-Profit.pdf

Be Intentional with the Language and the Details



We intentionally avoid the language ‘equity lens,’ because a lens can be taken off. Equity should be a forever understanding

—Ernie Rasmussen, Digital Equity Manager, Washington State Broadband Office, WA Department of Commerce

SPEAK WITH INTENTION

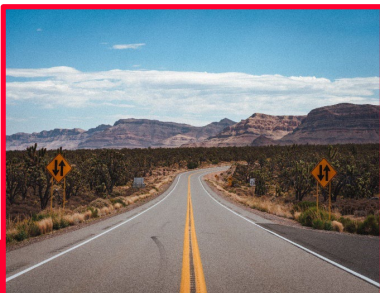
- Use language that **signals equity** is central to your work (e.g., “*Leading with equity*” vs. “*equity lens*”)
- Create **simple and accessible content** (i.e., not exceeding 5th grade reading level), translated into the state’s predominant languages
- Ensure targeted outreach is **culturally appropriate**
- Translate and publish materials into **accessible formats** for all (incl. those with limited vision, hearing)

ACT WITH INTENTION

- **Ask, don’t assume** (e.g. what do you want to use the internet for?)
- Ensure leaders **prioritize DE&I** (e.g., attend both BEAD and Digital Equity listening sessions)
- Select **event dates and times best for a diversity of individuals** (e.g., working adults, parents)
- Ensure outreach events **reach the disconnected and underserved**
- **Consider event accessibility** (e.g., are locations accessible by public transport, is there childcare)



Wrapping Up



Digital Divide



Digital Inclusion



Digital Empowerment/Equity



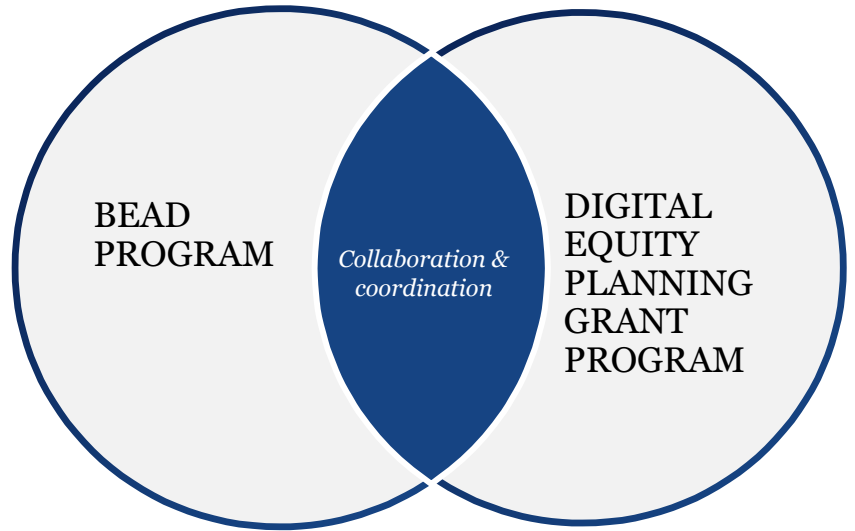
Community Engagement

Engaging with community members is a crucial step in understanding their needs and their barriers to adopting broadband internet. Community Engagement can also help ensure widespread support for community contributions toward both infrastructure projects and digital equity programs. The following information from the NTIA provides further details on Community Engagement, including guidance, strategies, activities, and how BEAD and Digital Equity programs are tied together.



What is the motivation for people to want to join the table?

- Ensure equity is the central component
- Reduce the burden and confusion
- Develop robust, inclusive plans



Every stakeholder plays a role in the BIL programs

Illustrative, non-exhaustive

Telecom provider

- Provide States, other territories, and Tribal / Native entities with background data on their baseline and digital equity needs



Community anchor institution

- Partner with States, other territories, and Tribal / Native entities to develop State Digital Equity Plans
- Advocate for community interests and needs



Community orgs

- Serve as a thought partner as States, other territories, and Tribal / Native entities design their outreach strategies
- Advocate for community interests and needs



Tribal government

- Submit a letter of intent to participate in the DE Planning Grant Program
- Coordinate with relevant State(s) to develop state-wide Plans



Local government

- Collaborate with States, other territories, and Tribal entities to develop State Digital Equity Plans



Individual

- Participate in the planning process of your local jurisdiction

Defining Community Outreach and Engagement

Community Outreach vs. Engagement



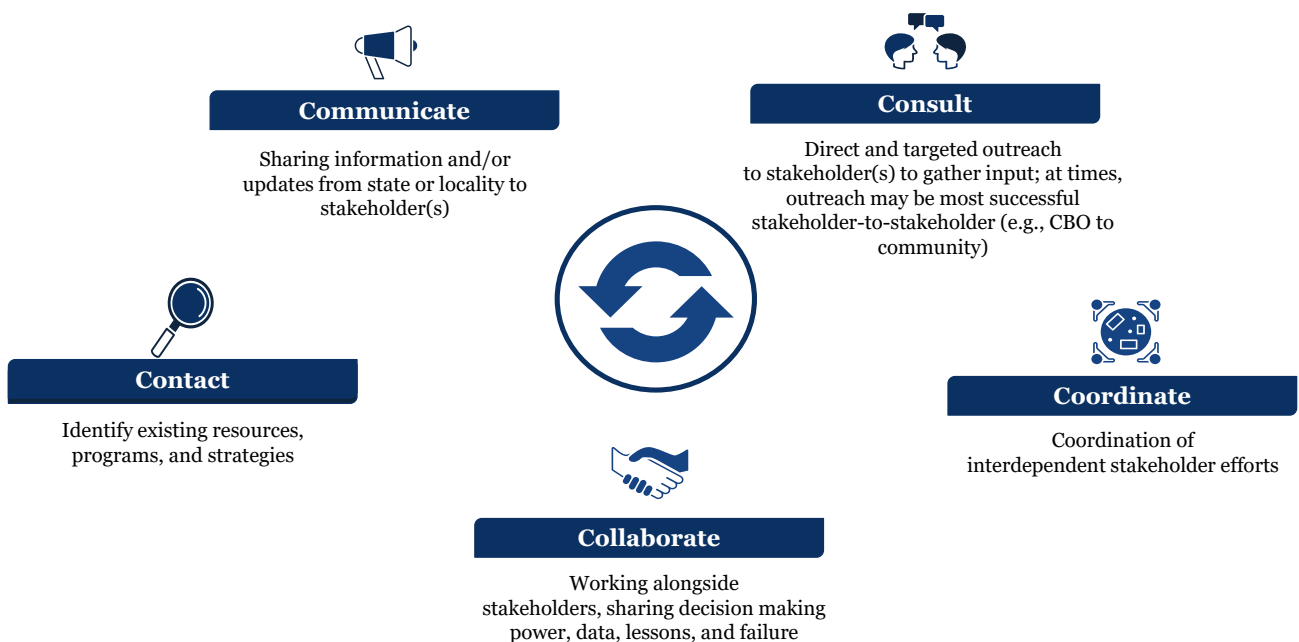
Community Outreach	Community Engagement
Short-Term	Long-Term
Marketing	Relationship Building
What can A do for B?	What can A and B do together?
One Group Benefits Most	Community Benefits
Transactional	Connecting
Directional	Cyclical

Source: <https://leadingdifferently.com/2019/06/06/community-outreach-vs-community-engagement/>



Components of Community Engagement

Collaboration and Stakeholder Engagement Model





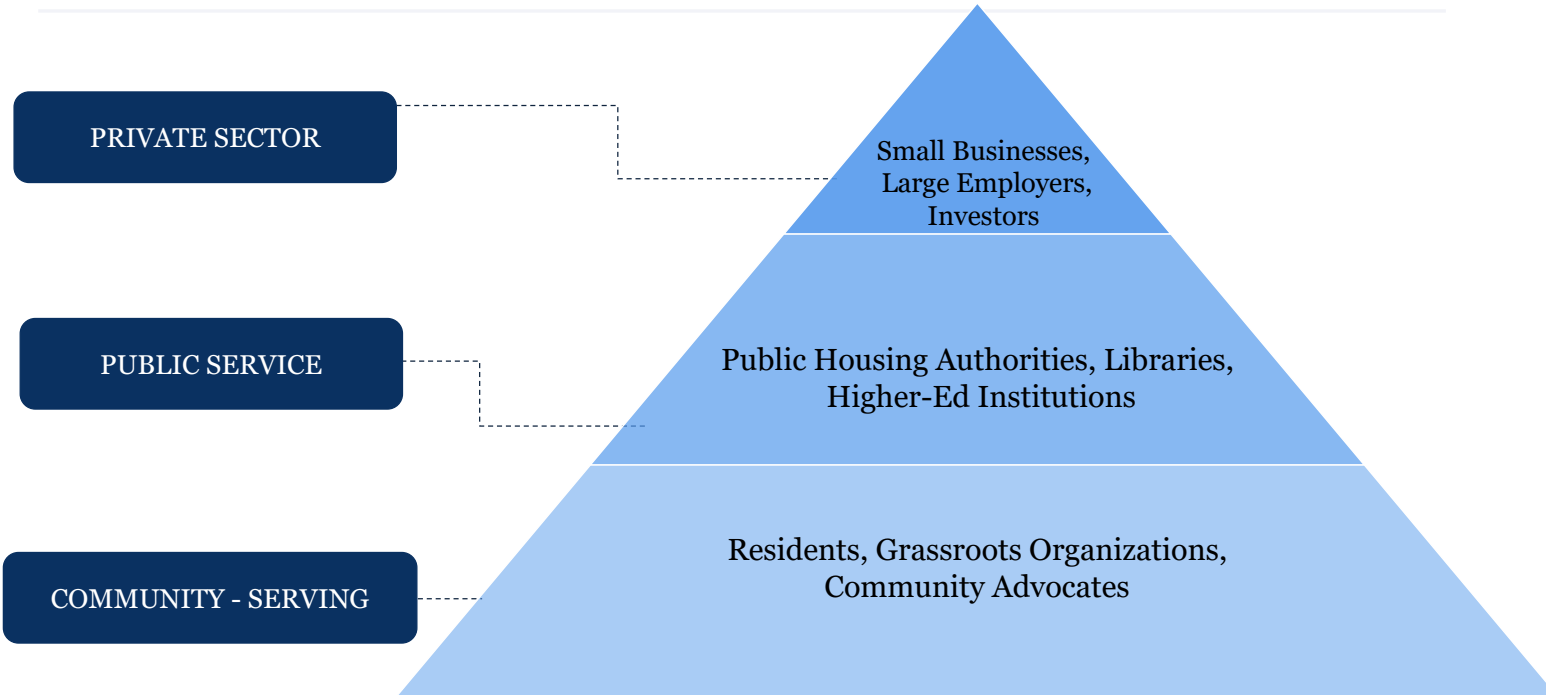
Planning your engagement strategy

Who will you engage?

- How should states and localities work together on engagement?
- What engagement processes and relationships currently exist?
- Who will be responsible for engagement and how will you manage capacity?
- How will you track the impact of engagement?
- How will you support engagement?



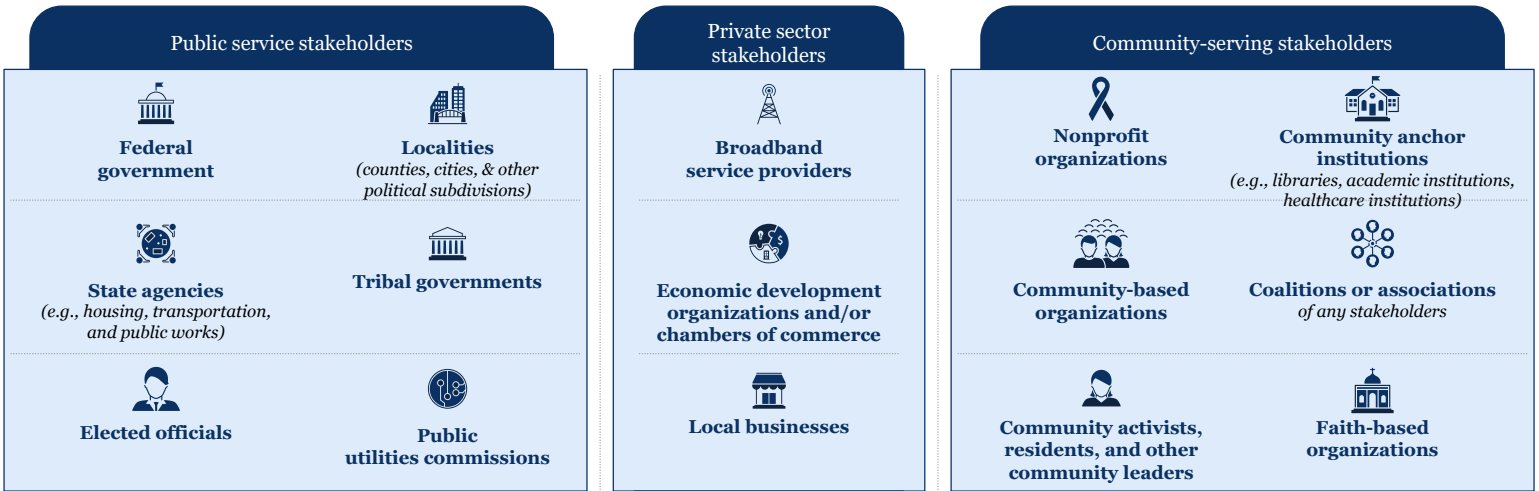
Stakeholder Groups by Category



Potential to engage a large and diverse group of stakeholders



Potential stakeholders include any individuals, groups, and/or organizations **involved in, impacted by, or interested in** State and Local broadband efforts



Strong stakeholder engagement can support the development of an inclusive, ambitious, and responsive broadband plan grounded in a deep understanding of community needs



DE & BEAD

Covered Populations and Underrepresented Communities

Identity groups and communities disproportionately impacted by digital inequity

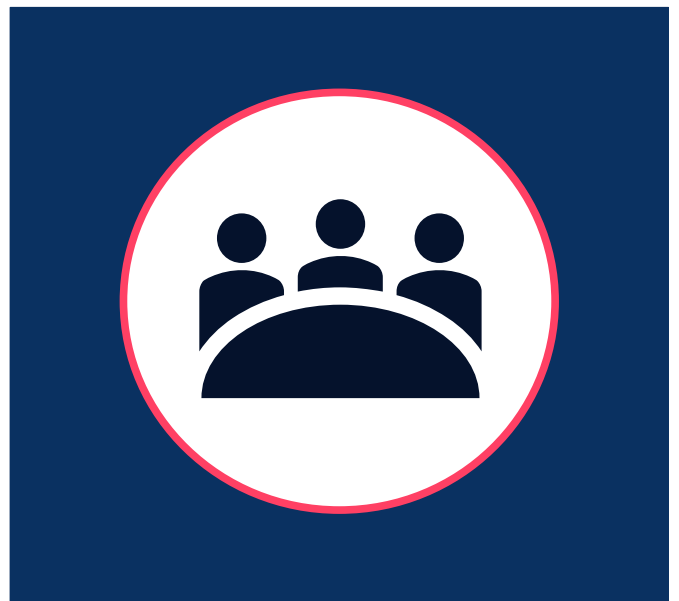
- | | | |
|--------------------------|--|--|
| Low-income households | Indigenous and Native American persons | People with language barriers |
| Aging individuals | Members of ethnic and religious minorities | Racial and ethnic minorities |
| Incarcerated individuals | Women | Rural inhabitants |
| Veterans | LGBTQI+ persons | Persons adversely affected by persistent poverty or inequality |
| Persons of Color | Persons with disabilities | |

DE NOFO

BEAD NOFO

Lived Experts Matter

Community Subject Matter Experts

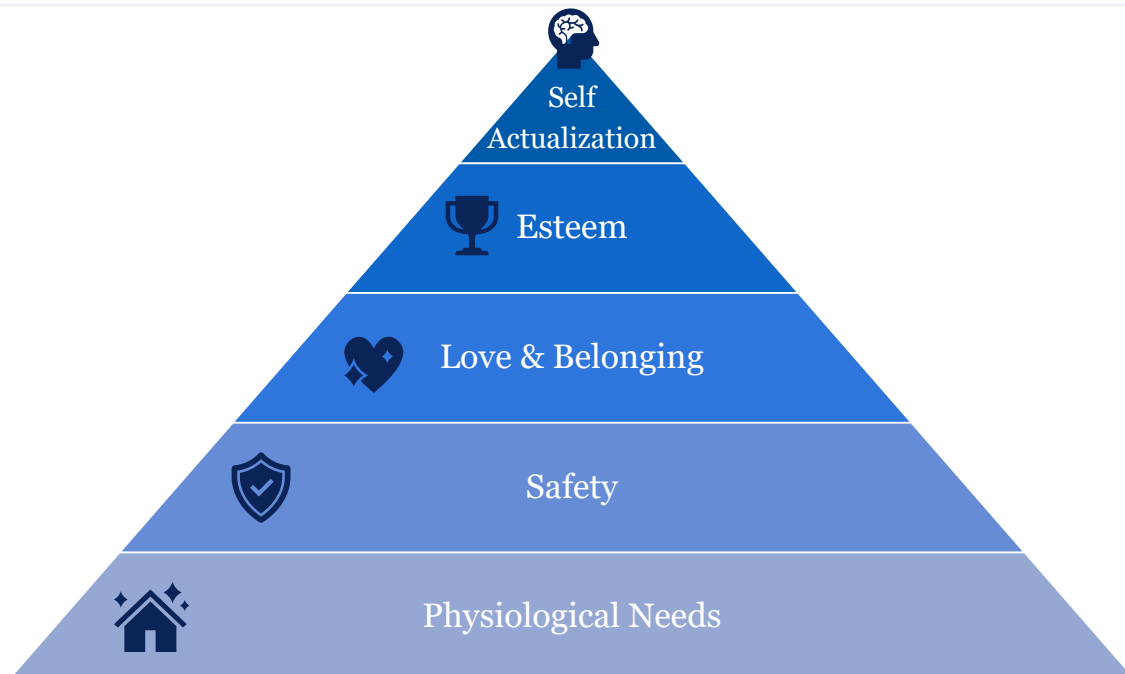


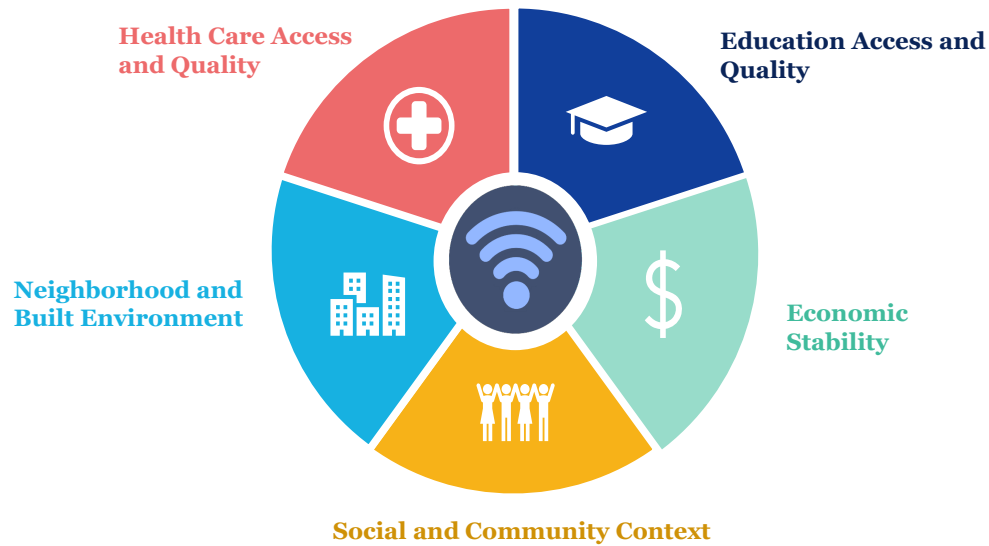
Don't always lead with technology

- What are some of barriers and challenges stakeholders are experiencing?
- What are some of the solutions that are being developed and implemented?
- Is there an opportunity for awareness/outreach/engagement?



Lead with a “people first” perspective





Set up initial engagement

How will you approach each engagement?

- What are your objectives for engaging each stakeholder?
- What will you discuss with stakeholders? (e.g., topics)
- How will your engagement support real solutions and programs that speak to stakeholder challenges?
- What can you learn from the community?



Effective Practices for Stakeholder Engagement

Digital Stakeholder Engagement



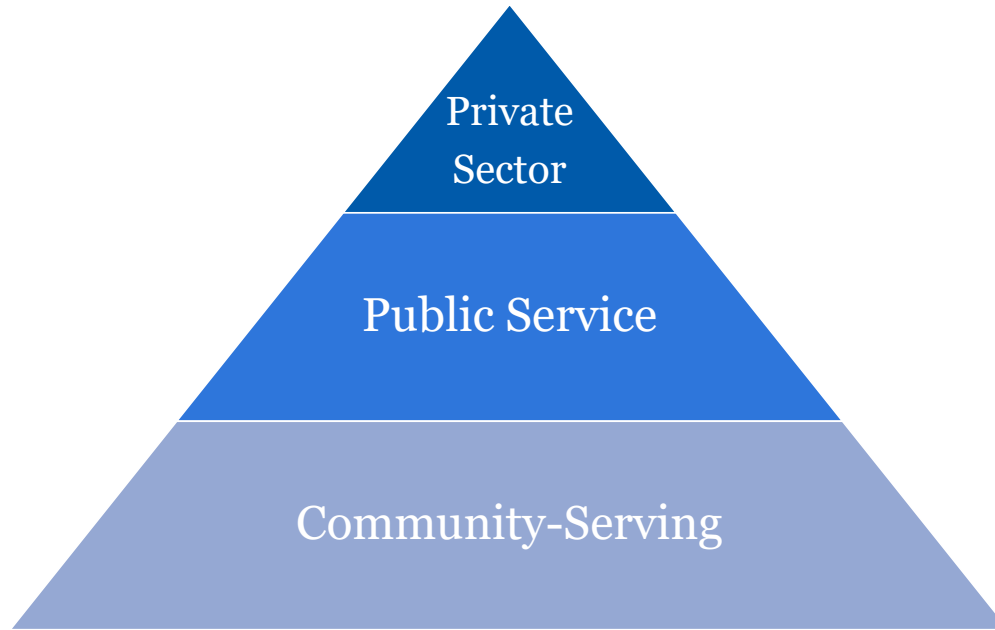
Stakeholder	In-Person	Online	Hybrid
Community-Serving		X	
Public Service			
Private Sector			



Remember:

- Stakeholder engagement is ongoing during the life cycle of the project!
- To build trust and collaboration with stakeholders, engagement can't be episodic.
- As broadband plans mature, the objectives of your stakeholder engagement may change—but you should continue to thoughtfully include stakeholders throughout your broadband efforts.

“Setting the Table” for Community Engagement

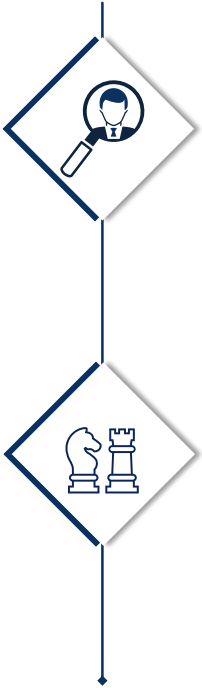


Award recipients are required to engage with key stakeholders as a part of developing digital equity plans

Key stakeholder groups may include:

- Community anchor institutions
- County and municipal governments
- Local educational agencies
- Indian Tribes, Alaska Native entities, or Native Hawaiian organizations, where applicable
- Nonprofit organizations
- Organizations that represent covered populations
- Civil rights organizations
- Entities that carry out workforce development programs
- State agencies that administer or supervise adult education or literacy activities
- Public housing authorities

Group Activity

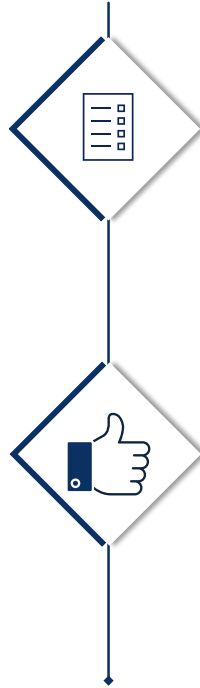


Goal / Desired Outcomes

- Improve rural health outcomes

Strategy

- Build capacity of rural health centers and libraries to increase use of telehealth



Tactics:

- Digital Health Navigator programs
- Subsidized broadband programs (like ACP) – outreach and sign-up support
- Laptop lending for patients
- Training on health monitoring applications, Zoom, online health portals, sources of reputable health information
- Provide private cybersecure kiosks at health centers and libraries for appointments
- Increase bandwidth to the rural health centers

Indicators of Success

- Increased usage of online health portals
- Increased telehealth appointments
- 2nd order indicators – increased health outcomes (maternal mortality, rates of disease, etc.)



Group Activity



Goal/Desired Outcome	
Strategy	
Tactics	
Indicators of Success	

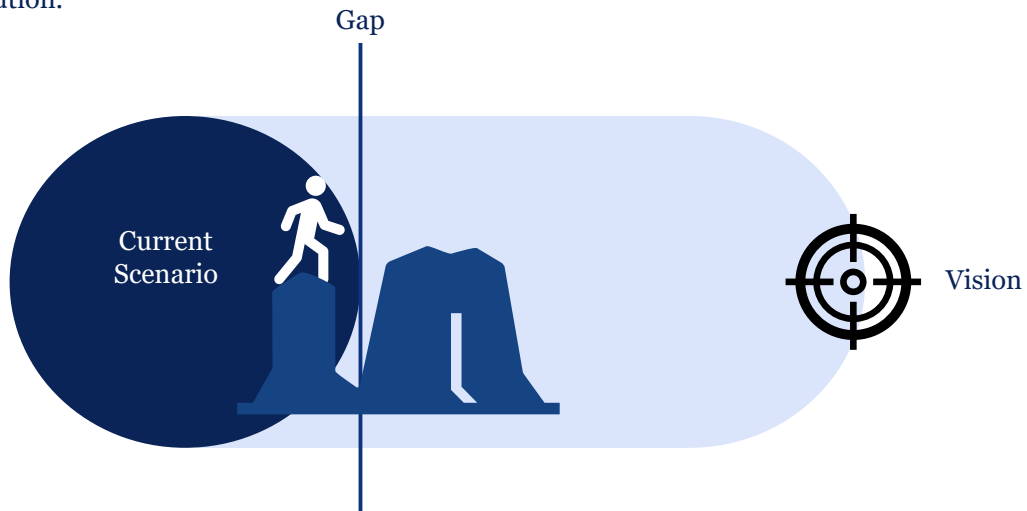


Developing Your Strategy

Gap Analysis in a Nutshell



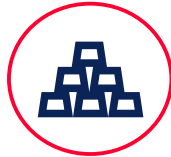
A gap analysis helps an organization assess its alignment with strategic objectives to determine whether the current execution is in line with the company's mission and long-term vision. Gap analyses then help reach a target performance by assisting organizations to use their resources better. A good gap analysis is a powerful tool to improve execution.



SWOT Analysis

A SWOT analysis is a framework used for evaluating the organization's Strengths, Weaknesses, Opportunities, and Threats. It can aid in identifying the problematic areas of your organization so that you can maximize your opportunities. It will also alert you to the challenges your organization might face in the future.

Strengths: Key resources, assets, and values giving a competitive edge



Weaknesses: Lacking resources, assets, and values preventing further growth



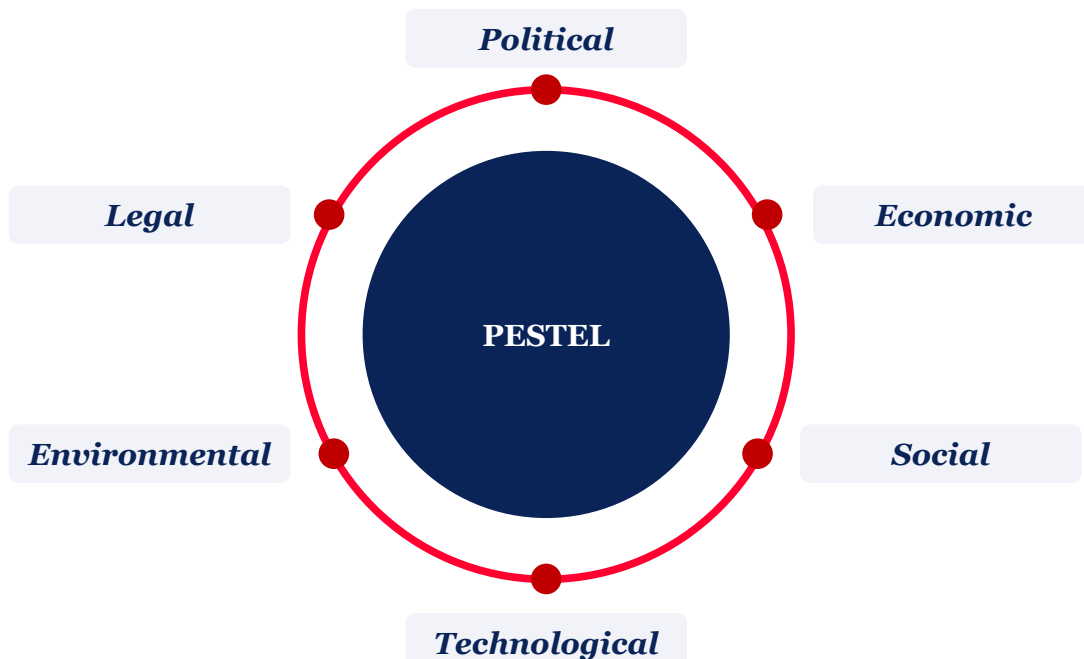
Opportunities: Contextual opportunities that can speed up growth



Threats: Contextual threats that can seriously harm growth



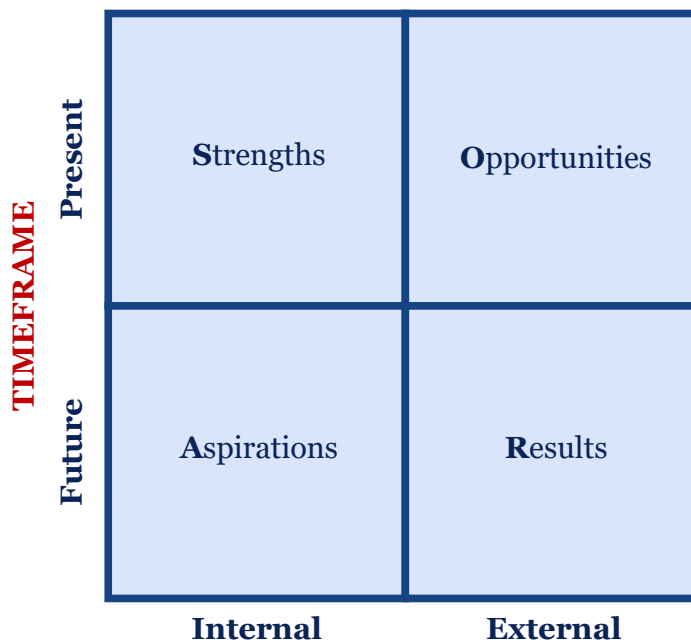
What is a PESTEL Analysis?



What is a SOAR Analysis?

A SOAR analysis is a technique that helps at a strategic planning level to:

- Focus on what they are doing right
- Determine which skills could be enhanced
- Understand the desires and motivations of their stakeholders





Localized Understanding

KOBD has provided two detailed maps for each of the twelve counties hosting Regional Workshops. You can view them via the QR code below or via: <https://bit.ly/BBPlanning>.

On the first map for each county, KOBD has included those locations that are currently deemed eligible for BEAD funding as well as those that are currently deemed ineligible for BEAD funding. The triangles represent *Community Anchor Institutions* in each county, which are required to be served with Gig symmetrical speed.

The first maps for each county also show the Unified School Districts, which KOBD is currently using to determine Project Funding Areas for BEAD grant applications. Through the State grant portal, providers will submit their intent to service Project Funding Areas. Finally, the first maps for each county list the ISPs currently known to be providing qualifying broadband technology in that county. KOBD encourages engagement with ISPs to ensure all eligible Kansans get connected.

The second map for each county details which grants were used in the deduplication process, or the process of determining locations that are ineligible for BEAD so that they will not be overserved. You can find information on grant timelines and rules on KOBD's website.

This is additional information for you to bring to your discussions with ISPs. For example, “You have received this type of funding for these locations already, when will it be applied to service my area?”

Communities can look to KOBD's website for updated maps that will help them understand the locations in their region that are eligible for BEAD funding, as well as further information on KOBD investment programs.



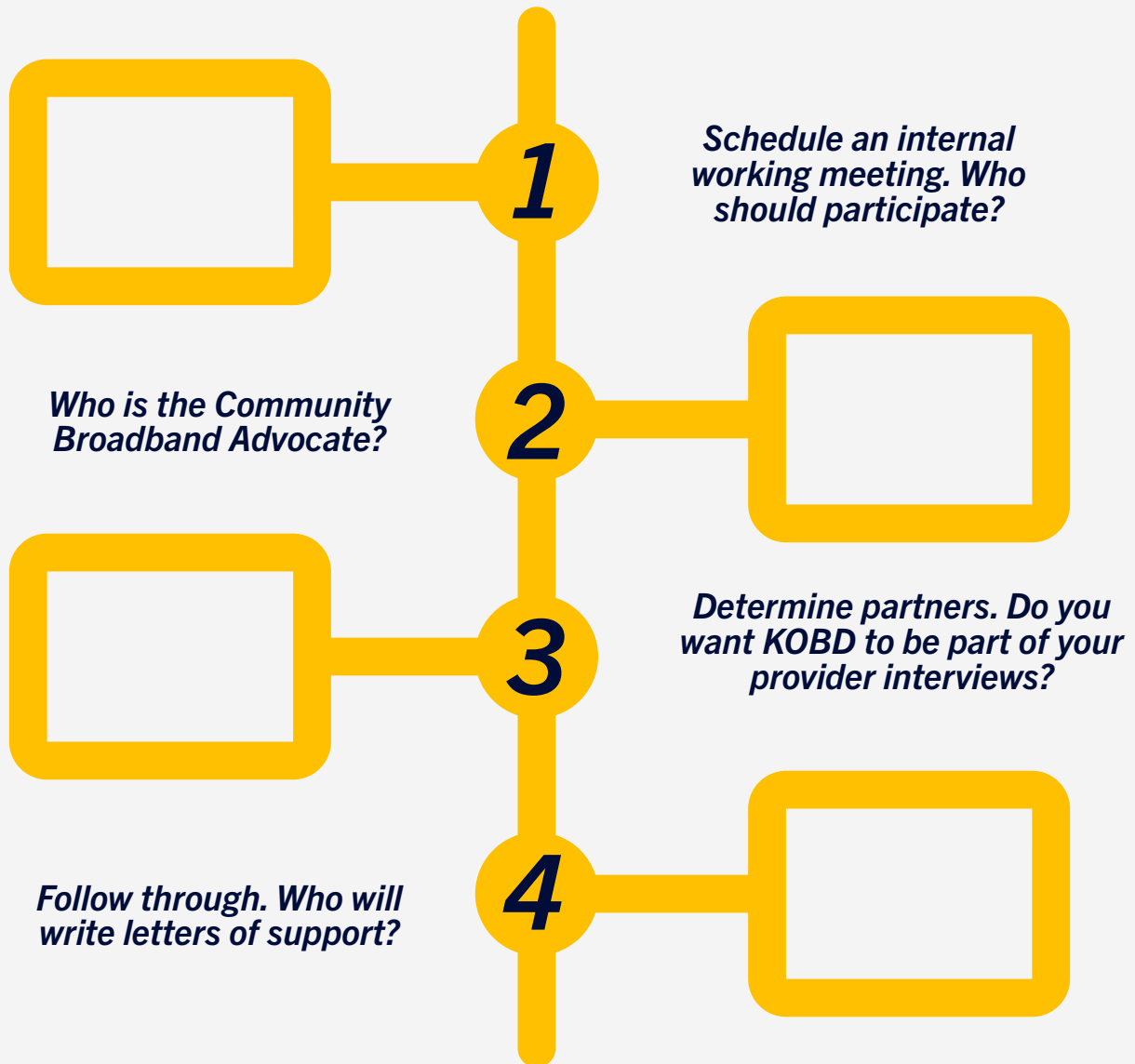
Community Anchor Institution: an entity such as a school, library, health clinic, health center, hospital or other medical provider, public safety entity, institution of higher education, public housing organization, or community support organization that facilitates greater use of broadband service by vulnerable populations, including, but not limited to, low-income individuals, unemployed individuals, children, the incarcerated, and aged individuals.



1 Gig Symmetrical: When the download and upload speeds are the same. For example, if you have a 1 Gig symmetrical internet connection, you have a speed of 1000 Mbps, that means you can download and upload data at 1000 Mbps simultaneously.



Actions to move forward.



Finishline - May 15

Opportunities to engage as a community at any level.

- Sign up for KOBD's Newsletter
- Review the BEAD Broadband Playbook
- Review KOBD's Initial Proposal Volume II
- Watch the Broadband Breakdown Video Series
- Attend KOBD's Office Hours
- Review KOBD's Broadband Ready Communities Program
- Determine if your community is Broadband Ready

- Decide whether local/tribal government/non-profit will apply to deploy broadband or will you partner with ISPs
- Organize around your decision – who should represent your community?
- Designate Community Broadband Advocate if you are planning to apply
- Identify the unserved and underserved locations in your community's unified school districts
- Create petitions, electronic or paper, targeted at these locations stating locations want broadband
- Review the eligible locations/project funding areas from KOBD prior to the Grant Application portal opening
- Engage with providers or contractors (if local or tribal government or a non-profit is deploying broadband)
- Attend provider or contractor meetings or invite them to your organization

- Who from community leadership will write letters of support for grant applications
- Will your community provide matching funds or in-kind matches
- Identify barriers to broadband adoption and resources and actions to mitigate
- Review and engage in KOBD's Digital Equity and Workforce Programs and their applicability to your community
- Stay engaged with your community provider(s) and broader community members
- Track BEAD progress and other policy developments

