Local Government High-Speed Internet Planning Toolkit

Start here to create a high-speed Internet plan for your community

- This Toolkit provides local government leaders with the guidance, knowledge, and resources to design, implement, and maintain a high-speed Internet plan in their communities.
- Made up of seven worksheets, this Toolkit offers insights, interactive tools, and links to technical assistance resources for every stage of the planning journey. While we understand that there is no one-size-fits-all approach to crafting a plan for ensuring affordable, high-speed Internet service for your communities, we hope this Toolkit provides foundational resources to get you started.

Expanding High-Speed Internet Access

Local leaders can better meet and serve the needs of their residents by expanding high-speed Internet access and use. Broadband offers far-reaching benefits, it improves education, strengthens health and powers the economy.

How to Use this Toolkit

This Toolkit offers a collection of worksheets and interactive exercises to guide you through the steps to build a plan for high-speed Internet development, adoption, or expansion. Use the principles below to guide your use of the Toolkit:

✓ **Use the Toolkit in any order.** Each worksheet can be used on its own to access guidance and resources on an element of high-speed Internet planning. Choose the worksheets that engage with your community's Internet planning needs.

✓ **Treat the Toolkit as a companion throughout your journey.** Each worksheet has both a learning component and an activity to guide you through that element of high-speed Internet planning. Treat the worksheets as reference guides to return to throughout your planning journey.

✓ **Refer to the accompanying Local Government High-Speed Internet Plan template.** The Toolkit includes a companion Local Government High-Speed Internet Plan template in Microsoft Excel that you can use to build out your plan. Read and populate the template in conjunction with the Toolkit as a more complete high-speed Internet planning resource.

Seven Elements to Building a High-Speed Internet Plan

Making a high-speed Internet plan involves seven major elements, each of which is important to work through to turn your vision into reality. Each element is covered by a worksheet in the Toolkit, which is comprised of learning and activity-based resources that your local government can use to learn about and create a plan.

Below are the seven elements, along with information on what the accompanying worksheets in the Toolkit can help you do.

1	**Assemble a Team**	• Figure out what skills you need on your team to be successful • Identify people to join your team • Select a team member to lead your high-speed Internet project
2	**Determine Your Priorities**	• Understand the basic concepts behind high-speed Internet access and use • Engage a wide and diverse range of stakeholder groups to identify barriers to meaningful high-speed Internet access and/or adoption • Identify ways in which your plan can address those barriers
3	**Explore the Data**	• Explore data sources that provide insight into what high-speed Internet access looks like in your community • Learn how to measure your community's current Internet usage and access
4	**Build Relationships for Success**	• Consider certain types of partnerships that are often involved in the planning process • Identify partners to engage throughout planning and project implementation • Your coalition should be representative of all those that you serve
5	**Select the Right Solutions**	• Evaluate options to execute your plan, including technologies or programs • Explore funding options available to support the plan execution
6	**Prepare a Budget**	• Detail the expenses that your high-speed Internet plan will include • Consider various cost options and provide justification for each cost that you select
7	**Chart a Path Forward**	• Develop a project plan to guide execution of your high-speed Internet plan

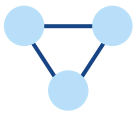
Assessing Your Community's Strengths

When creating and implementing your high-speed Internet plan, you will need to draw upon the many strengths within your community. What are some skillsets and relationships present in your community that may be an asset to broadband planning? Are there competing priorities or considerations that may pose a challenge?

Before you begin the exercise of broadband planning, think through the guiding questions below to help identify your community's strengths and challenge areas that may impact this process. Keep these in mind as you embark on your broadband planning journey.

Skillsets: *What skillsets are present in your community?*

Planning requires involvement from many people with a broad range of skillsets, including data analytics, program management, budget planning, and technical expertise. Use this guide as a resource to identify which skills may be valuable.



Relationships: *What existing community relationships may help facilitate your planning efforts?*

Planning is a community-wide effort that will rely on existing and new relationships. Consider relationships your community has with utilities companies, the school board/education community, community anchor institutions, government agencies, network providers, and other relevant groups. Reach outside of the "usual suspects" and consider who else will be affected by this plan.

Funding: *Are funds available for high-speed Internet planning?*

Planning can be a capital-intensive effort that may require your community to apply for funding to support implementation. Local leaders should consider funding from multiple sources, including but not limited to grants, philanthropic contributions, and private-public partnerships.

Local Context: *What elements of your community goals and priorities affect planning?*

Consider state or community goals and that may impact the timing or speed of the implementation of your plan.

1 Assemble a Team

Build a team with the skills needed to accomplish your goals.

Worksheet Objectives

- Figure out what skills you need on your team to be successful
- Identify people to join your team
- Select a team member to lead your high-speed Internet project

Build a Team that Matches Your Goals

The composition of your team should reflect what your community is trying to accomplish. The sample goals below show how what you are trying to accomplish may affect who is on your planning team.

If your goal is to **attract and promote local business…**	Increase representatives from your district leaders, small business administration, and tourism-focused groups
If your goal is to **improve public safety…**	Add representatives from police, fire, and emergency departments, as well as from communities with public safety challenges
If your goal is to **strengthen the workforce…**	Include representatives from nonprofits, workforce development programs, and librarians who focus on this topic
If your goal is to **enhance educational outcomes…**	Bring in representatives from schools and universities – including teachers, professors, administrators, and students
If your goal is to **bolster digital health capacity…**	Involve representatives from health clinics, pharmacies, third-party billing providers, public health departments or boards, and other relevant entities

Identify Community Advocates

Before building your team, think about the communities in your jurisdiction and the major figures and institutions in each community. Where do the strongest relationships exist? Who will be most helpful to you on your journey? A key factor to a successful team will be ensuring that it includes a wide and diverse set of stakeholders that resembles the community. See *Building Relationships for Success* for additional resources and materials to help identify and develop meaningful partnerships with community actors.

Community Input Moment: Use this step as an opportunity to obtain and incorporate community input on how you put together your broadband team.

1 Assemble a Team

Build a team with the skills needed to accomplish your goals.

Roles & Responsibilities Table

Broadband planning teams require a range of skillsets. Do you have a well-rounded team with the right people to take on some of the key responsibilities below? Are there other responsibilities for which you need to "staff"? Use this table to develop your dream team.

1. Look at the roles you will likely need on your team. Add any roles that might be missing.
2. Think about the core responsibilities for each role. Add responsibilities you will need, including for new roles.
3. Write in the name of someone who can fill this role for your team.

TEAM ROLE	RESPONSIBILITIES	TEAM MEMBER
Internal project champion	• Sponsors and drives planning activities forward	
Project manager	• Sets meeting agenda and organizes team dynamics	
Administrative assistant	• Organizes team documentation and resources	
Financial manager	• Manages team budget, funding and financial planning	
Technical and policy expert(s)	• Provides subject matter expertise on broadband-related matters	
Data expert	• Provides data collection, management and control expertise	
Outreach coordinator	• Leads outreach to community members	
Liaison to federal, state and local partners	• Leads outreach to federal, state and local partners	

You can add in more roles and other information for team members by navigating to the *Assemble a Team* tab in the accompanying Local Government High-Speed Internet Plan template.

2 Determine Your Priorities

Create a set of priorities to help your community build or expand meaningful access to high-speed Internet service.

Worksheet Objectives

- Understand the basic concepts behind high-speed Internet access and use
- Think through barriers that prevent meaningful high-speed Internet access and/or adoption
- Identify where to focus your plan to address barriers in your community

Understanding Internet Connectivity

Full and meaningful access to high-speed Internet service means having both (1) the **physical infrastructure** in place to support connectivity and (2) digital equity and inclusion strategies to support widespread Internet **use and adoption** throughout the community. When looking to bring or expand high-speed Internet to your community, you should think about infrastructure and use and adoption as two sides of the same coin. While **barriers exist** on the path to full connectivity, anticipating those that are most common can help your community overcome roadblocks and successfully plan to provide Internet for All.

	HIGH-SPEED INTERNET INFRASTRUCTURE	HIGH-SPEED INTERNET USE AND ADOPTION
DEFINITION	Broadband refers to the existence of physical infrastructure able to secure fast and reliable high-speed Internet service, meaning the provided service meets the standards set by the Federal Communications Commission (FCC).	Internet use and adoption refers to whether community members use and have equitable access to the Internet in their community. Internet use and adoption efforts promote digital equity and inclusion, and encompass topics such as digital literacy, skills training and service and device affordability.
COMMON BARRIERS	***Infrastructure Availability:*** Lack of existing infrastructure for high-speed Internet service can limit wide-spread availability for your community or region. ***Speed:*** The FCC defines broadband service at 25/3 Megabits per second (Mbps), with download speeds of at least 25 Mbps and upload speeds of at least 3 Mbps. Many ISPs only offer lower speeds in some areas, which can limit broad access to high-speed Internet. NTIA's grant programs consider anything less than 100/20 as underserved.	***Cost:*** High or unpredictable costs for Internet service can impede access to and equitable use of the Internet. ***Skills and Training:*** Community members may need additional skills to use the Internet safely and effectively. ***Relevance:*** Members may not readily see the relevance of the Internet to their daily lives. ***Devices and Applications:*** Devices can be prohibitively expensive, incompatible with certain networks and expose users to security vulnerabilities.

2 Determine Your Priorities

Create a set of priorities to help your community build or expand meaningful access to high-speed Internet service.

Looking at Internet in the Community

As you begin to develop your plan, you will need to gather information on broadband availability and use throughout your community. Use the guiding questions below to facilitate a conversation with a wide and diverse range of members of your community to learn about how the Internet is used.

	GUIDING QUESTIONS

Infrastructure	• Is there an Internet Service Provider (ISP) that currently serves your area?
	  ○ *If so, do levels of service meet high-speed standards?*
	  ○ *Are the speed offerings uniform throughout the community?*
	• If there is not an ISP that services your area, is there the necessary infrastructure in place to deploy broadband?

Use and Adoption	• Where do people use the Internet (e.g., home, work, community institutions), and what equipment do they use (e.g., home computer, smartphone, computer center)? • Do any of the above entities (e.g., community institutions) provide free Internet access? • What proportion of community members have Internet subscriptions? • Are Internet service subscriptions considered affordable? • Do digital literacy (e.g., computer skills, Internet browser skills, job search skills) trainings exist to help those unfamiliar with using the Internet? • Where high-speed Internet access exists, do community members use it regularly? If not, why not?

You can track conversations and responses to these guiding questions by navigating to the *Determine Your Priorities* tab in the accompanying Local Government High-Speed Internet Plan template.

Exploring the Data

As you talk with community members and groups about their Internet use, see where consistent pain points and service gaps emerge. Your plan will want to address and prioritize these areas to promote meaningful and equitable Internet access throughout the community. To learn more, your team will also need to analyze broadband data to better understand the extent of coverage and current use and develop a plan that sets reasonable and attainable benchmarks on the road toward complete high-speed Internet coverage. In cases where data is limited or not available, draw on insights from discussions with community members or other community-based research to complement quantitative data you do have.

For more on analyzing broadband data, see the *Explore the Data* worksheet.

3 Explore the Data

Measure current Internet availability and use in your community.

Worksheet Objectives

- Explore data sources that provide insight into what high-speed Internet access looks like in your community
- Learn how to measure your community's current Internet usage and access

Data as a Foundation for Your Plan

Key to any plan is having a clear understanding of your community's broadband availability and any significant gaps. Exploring data sources will provide you with quantitative insights to measure your community's current broadband availability and chart where you aim to go.

NTIA DATA SOURCES	The **National Telecommunications and Information Administration (NTIA) Data Explorer**, produced in partnership with the U.S. Census Bureau, provides comprehensive data on Internet and device use in the U.S. The survey captures information on the adoption of different types of devices and Internet access technologies, locations of Internet use, online activities and challenges preventing some Americans from taking full advantage of the Internet. See the Data Explorer page for this data. NTIA's **Indicators of Broadband Need (IBN) Map** displays areas across the country that lack access to high-quality Internet service. Users can filter for various indicators of need (e.g., speed, usage, device access, Internet access) and can view the data with various Census blocks layered on top. See the IBN Map page for this data.
FEDERAL DATA SOURCES	The FCC administers the **Broadband Data Collection (BDC)** to gather broadband availability data from internet service providers to update the National Broadband Map. The map depicts broadband availability by overlaying the BDC data on the map's Fabric, which is a dataset of all locations in the US where fixed broadband service is or could be installed. BDC data may be downloaded and governmental entities may access the broadband serviceable location Fabric for the counties in their jurisdiction. Both the Fabric and the broadband availability data can be challenged at any time to improve accuracy. The **American Community Survey (ACS)**, administered by the U.S. Census Bureau, releases new data every year with vital information about the people living in the U.S. Relevant data for broadband planning includes households' Type of Computer, Internet Access, and Type of Internet Subscription. See the Subject Tables S2801 and S2802 on the Census ACS website for this data.
SPEED TESTS	**Speedtest by Ookla** is a commercial platform that tests your personal upload and download speeds, as well as latency and retransmission rates in a network. Ookla has limited public reporting, but detailed data is available for purchase and download. See the Ookla Speedtest for this data. **M-Lab by Measurement Lab** tests your upload speed, download speed, latency rate, and retransmission rate. The data collected is available to the public for download and analysis. See the M-Lab test for this data.

3 Explore the Data

Measure current Internet availability and use in your community.

Select the Metrics that Matter to You

The various broadband data sources provide a wealth of information. Which topics are most important to you? Check the boxes of the topics you will explore more for your broadband plan, and then use the accompanying Local Government Broadband Plan template in Excel to organize and analyze the data you source.

TOPIC	SOURCE	DESCRIPTION
❑ Service Provided	IBN	Displays areas where no provider reports offering service at 25/3
	FCC	Displays number of fixed broadband providers in an area Lists providers that offer services for a specific location, based on address
❑ Internet Access	IBN	Displays areas where 25% or more of households report no Internet access
	ACS	Displays how many households report an Internet subscription Of households that report an Internet subscription, displays what type
	NTIA Data Explorer	Of households that use Internet, displays proportion of households with each type of Internet service
❑ Speed*	IBN	Displays areas that have speeds below 25/3
	FCC	Displays how many providers provide service at various speeds in an area
	Speedtest & M-Lab	Allows you to conduct your own speed test
❑ Devices	IBN	Displays areas where 25% or more of households report no computer, smartphone, or tablet use
	ACS	Displays how many households report having a computer Of households that report having a computer device, displays what type
	NTIA Data Explorer	Displays percentage of individuals that use different types of digital devices
❑ Activity & Location of Use	NTIA Data Explorer	Displays percentage of individuals who use the Internet to do various activities Displays percentage of individuals who use the Internet at various locations

** Note: The Indicators of Broadband Need (IBN) map incorporates data from the American Community Survey (ACS) and the FCC data sources detailed on the previous page. Speed data can refer to both advertised speeds and actual delivery speeds.*

Building Complete Data

While federal data sources provide insight into broadband coverage and use, they may have gaps that limit your ability to gather data about your community. State and local broadband data sources or qualitative community research (see the *Determine Your Priorities* worksheet) can be valuable complements to federal sources. Over time, your team may seek to use combinations of these datasets and research approaches to collect and maintain independent datasets on high-speed Internet service in your community.

4 Build Relationships for Success

Identify partners to engage throughout the planning process.

Worksheet Objectives

- Consider partnerships often involved in the planning process
- Identify partners to engage throughout planning and project implementation

Consider Local Partners

When you are building a plan, it is important to think through partners who are commonly involved in the process. While each community will have specific partners to engage, below are some examples of partners often involved in broadband planning.

PARTNER TYPE	EXAMPLES
Government	➢ City and county leaders, administrators, and officials ➢ State and Federal legislators and officials ➢ Public safety personnel ➢ Other (write in a group or individual role with this distinction in your community): _____
Private	➢ Internet service providers (ISPs) ➢ Wireless service providers ➢ Utilities companies ➢ Transportation facilities ➢ Other (write in a group or individual role with this distinction in your community): _____
Business	➢ Business leaders ➢ Chamber of commerce members ➢ Technical leaders ➢ Other (write in a group or individual role with this distinction in your community): _____
Institutional	➢ Educational administrators, school board members, parents, and students ➢ Economic development organizations and workforce development staff ➢ Librarians ➢ Other (write in a group or individual role with this distinction in your community): _____
Nonprofit	➢ Philanthropic leaders ➢ Public interest and community advocacy groups ➢ Faith-based leaders ➢ Other (write in a group or individual role with this distinction in your community): _____
Residents	➢ Citizens and residents ➢ Other (write in a group or individual role with this distinction in your community): _____

4 Build Relationships for Success

Identify partners to engage throughout the planning process.

How to Engage Different Partners

As you identify partners involved in the planning process, you will likely need to work with different types of partners in different ways. It is important that your partners and decision makers represent everyone in your community.

Develop
Partners who will help you develop the plan

Decide
Partners who will approve plan choices

Inform
Partners who are helpful to keep updated on plan developments

Identify Partners

Use the table below to think through how you will engage different partners on your plan. Write in partners in each box to note how you will need to work with them.

CATEGORIES	DEVELOP	DECIDE	INFORM
Government			
Private			
Business			
Institutional			
Nonprofit			
Residents			

You can capture more extensive information for managing partnerships by navigating to the *Build Relationships for Success* tab in the accompanying Local Government High-Speed Internet Plan template.

5 Select the Right Solutions

Determine the specific methods to use to reach your goals.

Worksheet Objectives

- Evaluate options to execute your plan, including technology or programs
- Explore funding options available to support the plan execution

Align with Your Goals

The solutions you select to implement your plan will depend on your community's unique goals. Whether you're planning an infrastructure project, a use and adoption project, a combination of the two, or something else entirely, there is no single "right" solution. To help think through your options, consider your community's existing barriers and how each option addresses those barriers. (See *Determine Your Priorities* for more information on high-speed Internet infrastructure, use, and adoption.)

Evaluate the Options

While each community's high-speed Internet solutions will differ, below are some examples and guiding questions to help you evaluate potential paths forward.

INFRASTRUCTURE TECHNOLOGIES

Infrastructure projects can increase Internet availability within your community, but construction is often capital-intensive.

- The main types of broadband service are **Fiber Optic**, **Cable**, **DSL**, and **Fixed Wireless,** each of which vary in terms of the potential network capacity and cost. Read more about the differences in these technologies in the *Key Terms & Resources*.

What technology is right for you? Ask yourself:

- Which technologies are compatible with the terrain in your community?
- What is your population density?
- How much capacity will users need? How do capacity needs differ across the community?

USE AND ADOPTION PROGRAMS

Your solution to boost adoption or expand public access should trace back to your community's unique priorities and needs. Potential solutions include:

- Providing **digital literacy training** on basic computer use, Internet search, and other key abilities.
- Offering access to devices and Internet connection through a **Public Computer Center (PCC)**.
- Lowering cost burdens via **discounts or subsidies.**

Which program will address your goals? Ask yourself:

- What population are you trying to serve, and which programs best address their needs?
- What community institutions could collaborate on implementation (e.g., house a PCC)?
- Do existing programs or ISPs offer discounts to certain populations?

5 Select the Right Solutions

Determine the specific methods to use to reach your goals.

Community Input Moment: *Use this step as an opportunity to speak directly with service providers and equipment suppliers about options available to your community. Also, reach out to other communities about which technology and services they chose and what factors were important in their decision.*

Identify Potential Federal Funding Sources

Regardless of the solution you choose, it will be important to think about how you will fund the solution. Federal funding, state funding, and private or philanthropic investment are all options available to consider. To explore federal funding options to finance your project, use the BroadbandUSA FY21 Interactive Federal Funding Guide (available for download). Use the table below to write in the funding programs applicable to you and that you plan to explore.

INSTRUCTIONS TO NAVIGATE THE INTERACTIVE FEDERAL FUNDING GUIDE

1. Open the document and click "Begin"
2. Click to view "Government"
3. Click to view "Local Governments"
4. Click the relevant Program Purpose(s) for your community to view funding opportunities

PROGRAM	DEPARTMENT	FED. AGENCY/BUREAU	IMPORTANT DATES

You can capture more extensive information for selecting solutions and funding options by navigating to the *Select the Right Solutions* tab in the accompanying Local Government High-Speed Internet Plan template.

6 Prepare a Budget

Set a budget for the various expenses included in your plan.

Worksheet Objectives

- Detail the expenses that your high-speed Internet plan will include
- Consider various cost options and provide justification for each cost that you select

Understand Your Costs

A clear understanding of all the expenses required to execute your plan. Below is a framework for thoughtfully considering your costs.

1 CATALOG YOUR EXPENSES

What expenses do you expect to incur when executing your plan?

A high-speed Internet plan will include a multitude of costs, including those not directly related to building infrastructure or purchasing equipment. By listing out all anticipated expenses, you can align on which items need to be in your budget. Expenses will vary depending on the type of project you are planning and the phase of that project. Typical phases are:

Pre-Construction	Construction	Sustainability + Operations
Costs incurred when planning your project	*Expenses for constructing and/or executing your project*	*Ongoing expenses to sustain your project*

2 ESTIMATE THE COSTS

How much will each item cost?

Prices for each item could vary greatly depending on quality, quantity, vendors and timing. To be cost-effective, do some research to understand the various price points for your expected expenses. As part of your research, get quotes from vendors, discuss with other communities who have budgeted for Internet plans and consider the implications of one-time costs, such as construction materials, versus recurring costs, such as wages and maintenance.

3 JUSTIFY EACH EXPENSE

Which items will you plan to pay for, and why?

Based on your pricing research, select the items you will include in your budget. During this process, it is important to thoroughly think through your reasoning for your budget decisions, as many funding opportunities will require you to provide budget justifications. *Why are you choosing one option over another? Are all your expenses necessary for the success of your project, and if so, why?*

6 Prepare a Budget

Set a budget for the various expenses included in your plan.

Direct and Indirect Costs

Budgets often contain both direct and indirect costs related to a plan. Direct costs are expenses incurred specifically to further a specific objective of your plan, such as construction materials for an infrastructure project or routers and modems for a digital equity and inclusion initiative. Indirect costs are expenses incurred for common or shared plan objectives and that can't be readily assigned to any one objective, such as administrative costs. Consider both direct and indirect costs when setting your budget.

Keep in mind that you may need to negotiate an indirect cost rate if your plan includes indirect costs and you are receiving a federal grant or other federal funding.

Elements of a Budget

Your budget should include itemized costs, quantities, and timeframes as applicable, as well as cost justifications that explain why the specific item is needed. Use the space below to begin to plot out your budget elements, then turn to the Local Government High-Speed Internet Plan template in Excel when you are ready to prepare your budget in more detail.

ITEM	QUANTITY / TIMEFRAME	JUSTIFICATION
Be as specific as possible when itemizing your costs. For each item in your final budget, include details such as model, brand, vendor, and any other specifications as appropriate.	For one-time cost items, such as devices, include the quantity you will need. For recurring expenses, such as rent or salaries, include the timeframe over which you will be paying that expense.	Provide the rationale for each item. This justification could include its purpose, team member(s) that will use it, vendor, time frame it will be needed, as well as any other relevant information.

BUDGET NARRATIVE

The elements above will feed into your budget narrative. The budget narrative provides information about line items in your budget and explains how associated expenses further the objectives of your high-speed Internet plan.

You can capture more extensive information for preparing a budget by navigating to the *Prepare a Budget* tab in the accompanying Local Government High-Speed Internet Plan template.

7 Chart a Path Forward

Develop a project plan to guide execution of your high-speed Internet plan.

Worksheet Objective

- Create a customized project plan to execute your vision

Create a Project Plan

Developing a project plan can help your community plan and organize the steps necessary to execute your vision. A good project plan lays out a clear path to implement your project by setting milestones, clarifying roles and responsibilities, and aligning your team around shared expectations and targets.

A project plan often includes some of the components below. Think through which components may be helpful for your community to include in your project plan.

PROJ. PLAN COMPONENT	DEFINITION	QUESTIONS TO CONSIDER
Project Objective	Measurable outcomes that serve as the organizing framework of your plan. Objectives help to make sure that activities match up with what you are trying to achieve.	*What discrete objectives does your project set out to achieve?*
Key Activities	Main efforts and actions necessary to achieve your community's plan. Each key activity should align to a project objective, with multiple activities for each objective.	*What activities need to occur to achieve your objective? In what order do they need to happen?*
Activity Owner/Point(s) of Contact (POC)	Individual or individuals responsible for successful execution of an activity.	*Who is responsible for implementation of the activity?*
Timeline (Start Date, End Date)	Estimated start and end dates of key activities. These should be realistic but targeted to keep your community's plan on schedule.	*When does the activity need to be completed? Working backwards, what start dates do you need to meet that end date?*
Status	Status of an activity (e.g., not started, on schedule, behind schedule, complete).	*What is the status of the activity?*
Risks	Possible roadblocks which may prevent or delay an activity from being executed.	*What risks are there to completing the activity?*

7 Chart a Path Forward

Develop a project plan to guide execution of your high-speed Internet plan.

A Living Document

A project plan can be updated throughout implementation to reflect the changing realities of your project. To make sure the plan serves as a "living document," it is important to assign a project plan manager who is responsible for keeping the project plan up-to-date and identifying challenges to implementation.

Support Successful Implementation

A project plan can run into a host of challenges throughout design and implementation. Below are common challenges and potential mitigation strategies.

Common Challenge	Mitigation Strategy
Lack of ownership and implementation of project plan activities and the project plan overall can hinder progress and render the workplan as outdated and obsolete rather than a living tool to track implementation.	☑ **Identify and assign a project plan manager** who is responsible for collecting updates from activity points of contact, including activity status, updates to target completion dates, and associated risks.
Unclear milestones and vague roles and responsibilities can limit coordination and progress on project plan activities and milestones.	☑ **Touch base frequently with activity points of contact** to obtain buy-in on project plan activities and clarify how the team can work together for execution.
Irregularity in updates to the plan can result in a project plan that is out of date.	☑ **Establish a regular cadence** to update the project plan, elevate risks, and propose mitigation strategies to keep activities on track.

What challenges do you see for your high-speed Internet plan?

_____
_____
_____

_____
_____
_____

How can these challenges be mitigated?

_____
_____
_____

_____
_____
_____

You can begin to build out your project plan by navigating to the *Chart a Path Forward* tab in the accompanying Local Government High-Speed Internet Plan template.

High-Speed Internet Planning Checklist (1/2)

Ready to finalize your plan? Use the checklist below to confirm you have all the components in place to move forward.

1 Assemble a Team

- ❑ Have you identified a team with the skills necessary to execute your plan?
- ❑ Do any gaps exist in your team where certain skills are needed?
- ❑ Have you defined the roles and responsibilities for each team member?
- ❑ Does your team include diverse stakeholders that resemble the community?

2 Determine Your Priorities

- ❑ Did you engage your community to conduct a qualitative assessment of high-speed Internet access?
- ❑ Did you begin to identify gaps in high-speed Internet availability and access in your community?
- ❑ Have you identified your community's priorities with respect to Internet infrastructure, use and adoption?

3 Explore the Data

- ❑ Did you identify federal data sources that provide data for your community?
- ❑ Did you investigate state or other sources to fill any gaps in federal data sources?
- ❑ If gaps still exist, did you identify a means or source of funding to help gather necessary data?

4 Build Relationships for Success

- ❑ Have you identified partners that could support your planning efforts?
- ❑ Have you determined which partners will help *develop*, *decide* and *inform* parts of your plan?
- ❑ Do your partners fully represent the community the plan will serve?

High-Speed Internet Planning Checklist (2/2)

Ready to finalize your broadband plan? Use the checklist below to confirm you have all the components in place to move forward

5 Select the Right Solutions

- ❑ Did you evaluate the various options for either infrastructure technologies or digital equity and inclusion programs and select the one(s) most appropriate for your community?
- ❑ Did you identify funding opportunities that could support the infrastructure technologies or digital equity and inclusion programs you've identified?
- ❑ Do you have the documentation required to apply to these funding opportunities?

6 Prepare a Budget

- ❑ Have you spoken to community organizations to learn how they approached the budgeting process?
- ❑ Have you gotten quotes from different vendors to find the most appropriate cost options?
- ❑ Have you provided appropriate justification details for items and resources outlined in your budget?

7 Chart a Path Forward

- ❑ Do you have the appropriate activities and timelines identified for your project plan?
- ❑ Have you confirmed points of contact for each project activity?
- ❑ Are there any gaps in your project plan that need to be filled before implementation?

Key Terms & Resources

Want to learn more? Use this section for a list of common terms and additional resources to help your community on its journey.

General Terms

An overview of broadband terminology to familiarize yourself with the basics.

Broadband: Commonly refers to high-speed Internet access that is always on and faster than traditional dial-up access. Broadband includes several high-speed transmission technologies, such as fiber, wireless, satellite, digital subscriber line and cable. For the Federal Communications Commission (FCC), broadband capability requires consumers to have access to actual download speeds of at least 25 Mbps and actual upload speeds of at least 3 Mbps.

Broadband Adoption: The use of broadband in places where it is available, measured as the percentage of households that use broadband in such areas.

Digital Divide: The gap between those of a populace that have access to the Internet and other communications technologies and those that have limited or no access.

Digital Equity: Parity in digital access and digital skills that are now required for full participation in many aspects of society and the economy. Digital equity links digital inclusion to social justice and highlights that a lack of access and/or skills can further isolate individuals and communities from a broad range of opportunities.

Digital Inclusion: Access by individuals and communities to robust broadband connections; Internet-enabled devices that meet user needs; and the skills to explore, create, and collaborate in the digital world. Digital inclusion programs can be used to promote digital equity.

Digital Literacy: The ability to leverage current technologies, such as smartphones and laptops, and Internet access to perform research, create content, and interact with the world.

Broadband Technologies

The transmission of data over a high-speed Internet connection can occur through various technology media.

Cable: Terrestrial broadband service provided over coaxial cable, leveraging the same infrastructure that provides cable TV services. Cable broadband speeds are dependent on the technology standard deployed (Data Over Cable System Interface Specification; DOCSIS) in the network.

Digital Subscriber Line (DSL): A form of technology that utilizes a two-wire copper telephone line to allow users to simultaneously connect to and operate the Internet and the telephone network without disrupting either connection.

Fiber: A flexible hair-thin glass or plastic strand that is capable of transmitting large amounts of data at high transfer rates as pulses or waves of light.

Fixed Wireless: A technology that combines fiber and wireless infrastructure to provide last mile broadband service. Data travels over a fiber network and then over the air through towers, similar to how cellphones work to a receiver at the home.

Satellite: Wireless Internet service beamed down from satellites orbiting the Earth. Satellite Internet is either offered through Geostationary satellites that orbit high above earth or Low Earth Orbit satellites, a newer technology that utilizes more satellites lower in Earth's orbit.

Key Terms & Resources

Want to learn more? Use this section for a list of common terms and additional resources to help your community on its journey.

Funding Sources

Funding for a broadband project can come from many a range of public and private sources.

Federal Sources: Various federal agencies like the Department of Commerce offer broadband grants to local governments. The BroadbandUSA Federal Funding Guide connects users to various funding opportunities that support broadband planning, digital inclusion, and deployment projects. The site allows you to filter programs by program purposes, eligible entities, and relevant agencies and departments.

State Sources: Many states provide broadband grants for local governments in their respective constituencies. BroadbandUSA compiles information on State Broadband Programs across all 50 states, including potential state funding opportunities.

Private Sources: Private entities will sometimes partner with local governments in public-private partnerships that fund broadband projects. In these agreements, local governments and private entities may share associated costs, risks, and profits from building and maintaining a broadband network.

Data Sources

Resources to help measure current broadband availability and use in your community.

American Community Survey Data: Releases new data every year with vital information about the people living in the United States. Relevant data for broadband planning includes households' Type of Computer, Internet Access, and Type of Internet Subscription. See the Subject Tables S2801 and S2802 on the Census ACS website for this data.

FCC Fixed Broadband Deployment Map: Provides a visualization of the residential fixed broadband deployment data collected on FCC Form 477, which gathers ISP-reported information for each census block across the United States.

M-Lab by Measurement Lab: Tests your upload speed, download speed, latency rate, and retransmission rate. The data collected is available to the public for download and analysis.

NTIA Indicators of Broadband Need: Displays areas across the country that lack access to high-quality Internet. Users can filter for various indicators of need (e.g., speed, usage, device access, Internet access) and can view the data with the geographies of Census blocks layered on top.

NTIA Data Explorer: Provides comprehensive data on Internet and device use in the U.S., including information on the adoption of different types of devices and Internet access technologies, locations of Internet use, online activities, and challenges that prevent people from taking full advantage of the Internet.

Speedtest by Ookla: Commercial platform that tests your personal upload and download speeds, as well as latency and retransmission rates in a network. Ookla has limited public reporting, but detailed data is available for purchase and download.

Explore additional Internet For All resources online:

www.internetforall.gov

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About Us: The U.S. Department of Commerce's National Telecommunications and Information Administration (NTIA) promotes innovation and economic growth by working to expand broadband connectivity and use across America