



The Power of Broadband Partnership: A Toolkit for Local and Tribal Governments

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FOREWORD

The National Telecommunications and Information Administration (NTIA), in the U.S. Department of Commerce, is the Executive Branch agency principally responsible for advising the President on telecommunications and information policy issues. NTIA's BroadbandUSA program provides expert advice and field-proven tools to communities seeking to increase broadband access and adoption for their citizens and businesses.

BroadbandUSA is publishing a series of guides and toolkits for communities determined to take steps to secure the robust broadband services and digital literacy skills needed to be competitive in today's global economy. These publications provide practical advice for developing programs that will successfully meet the current and future broadband needs of communities. They offer tips and best practices that NTIA has observed through its oversight of the Broadband Technology Opportunities Program (BTOP), funded through the American Recovery and Reinvestment Act (Recovery Act). Through BTOP, NTIA awarded grants to 230 projects across the country that built critical network infrastructure, opened or upgraded public computer centers, and established broadband adoption and digital inclusion programs. These projects included:

Public Computer Center (PCC) projects that provided computers, computer training, job training and educational resources to the public. PCCs offering these training programs are located in libraries, health clinics, community centers, tribal centers and government facilities. BTOP-funded programs trained more than 4 million people.

Sustainable Broadband Adoption (SBA) projects that supported initiatives promoting broadband adoption, especially among vulnerable population groups where broadband technology traditionally has been underutilized. Projects offered low-cost access to Internet devices and assistance choosing and signing up for broadband subscriptions. SBA projects added more than 671,000 new broadband subscribers.

Infrastructure projects that expanded broadband access in unserved and underserved areas and reached critical community anchor institutions, such as schools, libraries and hospitals. BTOP grantees deployed over 117,000 miles of new and upgraded fiber and wireless infrastructure in middle-mile and last-mile projects.

BroadbandUSA also brings stakeholders together to solve problems, improve broadband policies, share best practices, connect communities to other federal agencies and funding sources, and improve coordination among agencies. BroadbandUSA offers online and in-person technical assistance to communities; hosts regional workshops around the country; and publishes guides and tools that provide communities with proven solutions to address problems in broadband planning, financing, construction and operations.

If you are interested in receiving assistance from BroadbandUSA, please contact us at broadbandusa@ntia.doc.gov. For more information about BroadbandUSA, visit our website at http://www2.ntia.doc.gov/new_BroadbandUSA

INTRODUCTION

Many local government and tribal leaders are exploring how to expand the availability and adoption of robust, high-quality, affordable broadband services in their communities, using public-private partnerships to reach these goals.

This Toolkit provides an overview of common broadband partnership models and identifies several factors that communities should consider when developing a successful partnership — what to look for in a partner, methods to structure resourceful partnerships and how to build effective partnership relationships. These best practices stem from what NTIA has observed through its oversight of over \$4 billion in broadband grants to public, private and joint projects across the country. The goal of this Toolkit is to equip communities with the know-how to implement their broadband projects with partners who can provide resources and expertise to ensure success. This Toolkit complements the first publication in our Toolkit series — *Planning a Community Broadband Roadmap*.

Why Broadband Partnerships Work

Partnerships drive successful broadband initiatives because each partner contributes unique knowledge, expertise and resources to the project. Having partners increases a community's access to funding, expertise, operational efficiency, and new demographic segments. Forming strategic partnerships may be used for filling gaps in expertise, extending the project's impact and providing a greater opportunity for long-term sustainability.

Communities develop or support broadband partnerships for a variety of reasons: Cost-sharing: Certain communities, particularly in rural areas, may have significantly higher infrastructure deployment costs due to low population density, the need to build infrastructure further into unserved areas, or challenging terrain. Forming a partnership with a cost-sharing component is a way to decrease these deployment costs for each partner.

PARTNERSHIP TIPS: Consider a Partner when...

- ✓ Another organization has more experience in meeting a specific need
- ✓ The work is central to another's mission, and collaboration enables expansion into new service areas
- ✓ The initiative needs increased community buy-in and support that the partner can provide
- ✓ Another party has access to funding (*e.g.*, grants, corporate support) and resources that are lacking
- ✓ The partner brings expertise and innovation
- ✓ The partner's capabilities enables operations to be streamlined

Increased revenue potential: A partner may provide ideas to enhance revenue potential (*e.g.*, finding anchor tenants, aggregating community demand and removing regulatory barriers to expedite broadband deployment).

Institutional collaboration: Communities sometimes create partnerships to foster high-speed, affordable broadband solutions for government and community facilities (*e.g.*, schools, libraries). These institutions may find that the total cost of ownership, over the long term, may be less with a network dedicated to serving such synergistic user segments.

Expertise and support: Although local, state, or federal funding may be available to support a community's broadband project, these sources rarely cover the entire cost of a large project. A partnership with commercial broadband operators can supplement public funding opportunities while also bringing technical expertise to the initiative. A partnership with a non-profit organization can add expertise to a project that is targeting broadband adoption or digital literacy training to a specific demographic that is central to the non-profit's mission.

How to Use the Toolkit

This Toolkit contains information on how to build broadband partnerships and identifies four steps that local and tribal government leaders should consider taking to form effective partnerships: understanding typical broadband partnership structures; finding the right partners; determining each partner's contribution; and developing the partnership framework. Each section below contains:

- ✦ Advice on how to develop a successful partnership
- ✦ Best practices that NTIA culled from the experiences of BTOP grantees and its own observations and expertise
- ✦ Examples from grantees that demonstrate these best practices
- ✦ Resources available online

This Toolkit will assist public officials, planners, citizen groups and other stakeholders in selecting partners that will enable their broadband projects to grow and thrive.

Building a Broadband Partnership

During the planning stage of the process, broadband champions and government leaders should examine the type of broadband project they want to implement and ask:

- ✦ What types of partners should be considered?
- ✦ What criteria should drive partner selection?
- ✦ What kind of relationship should be formed?
- ✦ What methods should be used to formalize the partner selection process?
- ✦ What project functions would best be implemented through a partnership model versus a contract with a vendor?

NTIA has found that there are two key factors to building and sustaining successful partnerships in broadband infrastructure and adoption projects:

Government leaders can pave the way for successful broadband partnerships: Government leaders can play an active role in initiating, building, and participating in successful broadband partnerships by identifying needs, generating community support, attracting private investment, leveraging access to municipal and tribal rights-of-way (ROW), allowing government buildings to be used for adoption programs, sponsoring broadband adoption programs, streamlining permits required to build networks, advocating for the project, and developing or participating in public-private partnerships for a government network or signing on as an anchor tenant to a new network.

Partnerships can contribute to successful broadband projects by providing assets, funding, and expertise. Each broadband project is unique and so are the partners involved and the partnership models utilized. The selection and inclusion of partners in broadband projects depends on what assets, funding, or expertise is needed. Once partnerships are formed, partnership management and the maintenance of good, on-going relationships are critical to success.

The following four steps are necessary to develop successful broadband partnerships:



STEP 1: UNDERSTANDING TYPICAL BROADBAND PARTNERSHIP STRUCTURES

STEP 1

Understanding Typical Broadband Partnership Structures

STEP 2

Finding the Right Partners

STEP 3

Determining Each Partner's Contribution

STEP 4

Developing the Partnership Framework

Local and tribal government broadband partnerships can take many forms, but four models are most common. In many cases, the broadband project may combine elements of all four:

- ✦ Private sector-led partnerships
- ✦ Government-led and private sector-supported partnerships
- ✦ Government-led and non-profit-supported partnerships
- ✦ Joint-ownership model

Private Sector-Led Partnerships

In this partnership structure, a commercial operator (private or non-profit) builds, owns, and operates the broadband network. Private network service providers, equipment vendors, developers and technology firms bring expertise, resources and innovation in network deployment and operations, customer support, and new broadband applications to support the work of the local or tribal government.

Local and tribal governments, community anchor institutions and economic development authorities might support the private sector-led partnership in several ways, including contributing the vision, strategic plan, facilities, monetary and regulatory support, as well as aggregating demand from groups of potential customers, and offering commitments to use the network before its construction.

Many community broadband networks use private sector-led partnerships as the core framework in an expensive infrastructure project and build upon this support by adding other partners, such as universities or non-profits, to extend its reach and impact.

Examples of private sector-led partnerships from the BTOP project portfolio include:

- ✦ South Dakota Network (SDN) (<https://go.usa.gov/xX34w>) is a partnership among 17 telecommunications providers (<https://sdncommunications.com/who-we-are/member-companies/>) offering its network to educational, health, government, agricultural and private customers across the state.
- ✦ NoaNet (<https://go.usa.gov/xX3cS>), which began as a Competitive Local Exchange Carrier (CLEC), is now a consortium of private, government, tribal and non-profit partners. Its network supplies high-speed broadband service to over 60 last-mile service providers in Washington State.
- ✦ Ronan Telephone Company, an independent telecommunications provider in Montana, partnered with tribal governments and a healthcare consortium to extend broadband services to rural areas.

Government-Led and Private Sector-Supported Partnerships

In this type of partnership, a public entity (*e.g.*, state, county, or city government, municipal electric utility or rural coop) owns the network and either private or non-profit partners construct, operate and/or maintain the network in exchange for financial and in-kind support, or the types of contributions described above in the private sector-led model.

The public entity either uses an existing organization, such as a municipal electric system, or creates an entirely new organization.

Government-led partnerships often stem from collaboration among local, state, regional or federal entities. Examples from the BTOP portfolio include the following infrastructure projects:

- ✦ Ocean State Higher Education Economic Development Administration Network (OSHEAN) (<https://go.usa.gov/xX32a>) was founded by non-profits and state agencies to connect Rhode Island and Massachusetts community anchor institutions with high-speed broadband. OSHEAN partnered with a cable company, a municipal electric provider and a broadband service provider to offer additional network capacity.
- ✦ Nelson County Virginia (<https://go.usa.gov/xX323>) built a fiber broadband network to spur economic development. The County partnered with an engineering firm to operate and maintain the network on a day-to-day basis.

Government-Led and Non-Profit-Supported Partnerships

Broadband access or adoption projects frequently use models in which a government takes the lead and partners with a wide range of city agencies and non-profit service organizations to facilitate the project's mission. Relevant examples from the BTOP portfolio include:

- ✦ The Central Oregon Intergovernmental Council (COIC) Regional Economic Development Agency operates the Crook County Open Campus Public Computing Center (<https://go.usa.gov/xX3cz>).
- ✦ The City of Philadelphia (<https://go.usa.gov/xX3ce>) developed agency and non-profit partnerships to address the digital divide by stimulating broadband adoption (<https://go.usa.gov/xX3cM>) and public computer center projects in targeted neighborhoods.
- ✦ The City of New York (<https://go.usa.gov/xX3cF>) cultivated partners to expand public access to computer technology through the library system, the parks department, and agencies serving disadvantaged populations.

Joint-Ownership Model

The fourth partnership model is often used for infrastructure broadband initiatives. In this model, one or more public or private commercial operators and the public entity jointly invest in a network and share capacity on it. All partners contribute a mix of financial, in-kind and other support to the network build and operation.

Examples of the joint-ownership model from the BTOP portfolio include:

- ✦ OpenCape Corporation (<https://go.usa.gov/xX3cH>) built a 475-mile network and data center to serve Southeastern Massachusetts, Cape Cod and the nearby islands of Nantucket and Martha's Vineyard. It provides service to towns, municipal buildings and businesses and drives the discussion for last-mile connectivity in this underserved area of the state. OpenCape, a non-profit entity, owns the system and operates the data center; CapeNet (<http://www.capenet.com/>), the operating partner, sells broadband service and maintains the network.
- ✦ Navajo Tribal Utility Authority (<http://www.ntua.com/>) partnered with Commnet Wireless (<http://www.commnetwireless.com>) to form NTUA Wireless to build and operate a broadband network to serve the Navajo Nation, which covers portions of Arizona, Utah, and New Mexico.

The following case studies offer an in-depth look at how two BTOP grantees selected the partnership model best suited to their needs to advance the broadband objectives of their communities.

Organization: Crook County, Oregon

Purpose: *Create a public computer center to support job training in a region suffering from high unemployment*

Partnership Strategy: *Create government-led partnerships to prepare people for jobs requiring new skills*

The economy of rural Crook County, Oregon had long depended upon natural resources - timber, ranching and agriculture. After the economic downturn in 2008, Crook County's population suffered from a nearly 20 percent unemployment rate with limited prospects for attracting new jobs. Crook County's workforce had no training for digital-economy jobs. Travelling more than 75 miles to attend regional community colleges was unaffordable for the unemployed, leaving them with limited access to post-secondary education opportunities. With limited broadband access, distance learning for education and training was impossible, though necessary to increase economic development in Crook County.

The partnership began when the Oregon State University Extension office invited Crook County, the local school district and the local community college to develop a plan for the Prineville Open Campus Public Computing Center (<http://www.cocc.edu/prineville/>), which would create a hub for in-person and online learning in Crook County. The county contributed land and start-up funds and performed a needs assessment, which confirmed the need for the PCC. The community college floated and passed a bond levy to fund the expansion of programs into the rural communities of its educational district and to create a satellite campus in Prineville, the county seat. Local government agencies and educational institutions pledged support to maintain the PCC over the long term.

Based on the planning of this partnership, Crook County received a grant to build the Crook County Computer and Education Center, which is jointly owned by the County and the Central Oregon Community College and serves as the Prineville Campus (<http://www.cocc.edu/prineville/>). The partnership expanded with the addition of the county library and two local high schools to extend the Center's impact over the long term. The Center is equipped with a 100 Mbps broadband connection, which enables it to offer community college programs, adult basic skills training, college preparatory, General Educational Development (GED) and English as a Second Language (ESL) classes more effectively.

These county resources served as a catalyst for private sector participation through informal partnerships. After a leading social media company selected Crook County as the site for its server farm and data center, the community college entered into a workforce-development partnership with the company and developed an intensive Computer Systems Technician Training program (<http://www.cocc.edu/continuinged/systech2/>). Another major technology company built a second data center in Crook County and also partnered with the College. Both corporate partners have advised the college on curriculum development and have provided field trips, guest lecturers and other in-kind support to develop an awareness of the requirements needed and skills necessary to qualify for available positions. Partly as a result of these partnerships, the local community has seen a positive improvement in the availability of good jobs and a more qualified workforce. The county's unemployment rate has been cut in half.

“In rural communities, partnerships are everything. It’s the ‘all hands on deck’ approach to addressing our highest priority needs.”

— Andrew Spreadborough, Executive Director, Central Oregon Intergovernmental Council

Resources:

- @ Central Oregon Community College Computer Systems Technician Level 1 Classes <http://www.cocc.edu/continuinged/systech/>
- @ Central Oregon Community College Computer Systems Technician Level 2 Classes <http://www.cocc.edu/continuinged/systech2/>

Organization: Iowa Communications Network/Sac & Fox Tribe of the Mississippi in Iowa/Meskwaki Nation

Purpose: *Provide broadband infrastructure and services to tribal homes, businesses and community anchor institutions*

Partnership Strategy: *Form a government-led partnership between the Tribe and the state telecommunications network*

A few years prior to the availability of Recovery Act funding, the Sac & Fox Tribe of the Mississippi in Iowa/Meskwaki Nation (<http://www.meskwaki.org/index.html>) held a strategic planning session where tribal leaders discussed the need to increase broadband availability. At the time, there was limited access to high-speed broadband services. Only a few businesses had fiber connectivity, and commercial DSL service, where it existed, was the only option available to businesses and residents. Tribal leaders felt that the community needed broadband connectivity to advance education and economic development opportunities, and set a goal for all homes, businesses and community anchor institutions to have high-capacity broadband availability within 10 years.

After significant technical and financial analyses and discussions with other regional telecommunications carriers and the Connect Iowa (<http://www.connectiowa.org/>) State Broadband Initiative, the Tribe forged a partnership with the Iowa Communications Network (ICN) (<http://icn.iowa.gov/>), a state distance-learning and government network seeking to provide broadband connectivity to underserved areas of the state.

ICN included the Meskwaki Nation as a partner in its BTOP infrastructure project, Bridging the Digital Divide for Iowa's Communities (<https://go.usa.gov/xX3ck>). The Tribe capitalized on ICN's ability to provide high-speed broadband, data, videoconferencing and voice services to K-12 schools, colleges and universities, hospitals, state and federal government agencies and libraries.

The BTOP grant funded fiber interconnections with the Meskwaki Nation's settlement school, tribal clinic and tribal center. In a separate initiative, the Tribe then deployed over 14 fiber-route miles to over 195 homes. The Meskwaki School and clinic now use ICN videoconferencing and distance-learning services through ICN's network connections to the University of Iowa, other learning centers and major hospitals.

“Historically, the tribe has had a good relationship with the State of Iowa. We were glad to build on that relationship with this important project. We are not just connected by fiber. We are now on the same network, so our institutions and our members have access to the great education and health services that ICN offers.”

— Janice Eagle Hawk, IT Director, Meskwaki Nation

Resource:

@ Download BroadbandUSA's, An Introduction to Effective Public-Private Partnerships for Broadband Investments, an overview of common broadband partnerships and what factors should be considered in building a successful model: <https://go.usa.gov/xX3cB>.

STEP 2: FINDING THE RIGHT PARTNERS

STEP 1

Understanding Typical Broadband Partnership Structures

STEP 2

Finding the Right Partners

STEP 3

Determining Each Partner's Contribution

STEP 4

Developing the Partnership Framework

Strategic partnerships grow out of stakeholder engagement and from the assessments undertaken in the planning phase, as described in NTIA's *Planning a Community Broadband Roadmap* publication. These activities broaden the community network and enable local and tribal governments to discover organizations with common interests and complementary abilities that highly value the broadband project.

NTIA has found these best practices to be useful guides for community and project leaders as they seek partners for their broadband projects:

- ✦ **Engage a comprehensive set of partners:** A broad set of commercial, government and community partners provides advantages in executing ambitious projects and ensuring their long-term sustainability.
- ✦ **Offer broadband champions a key role in partnership development:** People involved since the inception of the broadband project planning process should be involved in developing the objectives and terms of the partnership agreement. Advocates from community anchor institutions, non-profits, and local government agencies can encourage interest in broadband, build demand for it, and promote capacity building over the long term.
- ✦ **Pick partners carefully:** A prospective partner's experience, credibility, management and operational capability, financial standing, and ability to carry out the work on the scale required by the project should be evaluated carefully. Research may be necessary to gauge the prospective partner's skills, experience, and cultural fit with local government, other organizations, and the customer base.

Rationale for Working with Partners

Partnerships must offer value to all parties if they are to be successful. Selecting the right partner or partners will accelerate near-term results and drive long-term benefits.

A partner can help to increase or expand:

- ✦ **Awareness:** Using a prospective partner's marketing expertise to improve credibility and awareness of the broadband service the community is offering
- ✦ **Market reach:** Leveraging a prospective partner's customer base or geographic service area to serve places or people that the community is trying to reach
- ✦ **Expertise:** Enhancing decision-making through the prospective partner's knowledge and expertise
- ✦ **Funding or in-kind contributions:** Accessing resources and funding through the partner's relationships
- ✦ **Operational efficiency:** Combining forces with a partner to increase the project's effectiveness.
- ✦ **Qualifications:** Using a trustworthy and experienced prospective partner as a sounding board to improve the quality of the broadband project.

Partner Types

There are many creative ways to expand the impact and sustainability of broadband programs by entering into strategic partnerships with private companies, non-profits (including schools, healthcare organizations, community non-profits, research and education organizations, foundations and grant-making organizations) and other government or government-sponsored entities (*e.g.*, libraries and economic development organizations).

Local and tribal governments often develop relationships with three types of partners:

- ✦ **Private partners** such as broadband and telecommunications service providers
- ✦ **Institutional partners** such as schools, universities, libraries, or hospitals
- ✦ **Government and community partners** such as government agencies, non-profits, chambers of commerce and economic development organizations

Categories of Partners

The following chart provides more detail on the different categories of partners and the resources and expertise each brings to a broadband project.

Categories	Examples	Partner Role
Institutional Partners		
Educational institutions and networks	<ul style="list-style-type: none"> ✦ Universities and colleges ✦ Community and tribal colleges ✦ Local school districts ✦ University extension offices 	<ul style="list-style-type: none"> ✦ Serve as key anchor tenants on broadband networks ✦ Provide low-cost or free equipment and space ✦ Offer expertise to teach digital literacy classes (<i>e.g.</i>, K-12 instructors) ✦ Provide outreach and broadband adoption training for rural broadband projects (<i>e.g.</i>, university extension offices which have traditionally provided education and technology to rural communities) ✦ Operate school and inter-school networks among localities ✦ Provide funding
Libraries	<ul style="list-style-type: none"> ✦ Local libraries ✦ State libraries 	<ul style="list-style-type: none"> ✦ Provide broadband services, community outreach and digital literacy expertise ✦ Provide access to free equipment and classrooms ✦ Host health, education, and workforce development programs
Healthcare institutions	<ul style="list-style-type: none"> ✦ Private hospitals ✦ Public hospitals ✦ University hospitals ✦ Clinics 	<ul style="list-style-type: none"> ✦ Serve as key anchor tenants on broadband networks ✦ Sponsor telemedicine projects that include rural areas ✦ Provide funding
Private Partners		
Private sector partners	<ul style="list-style-type: none"> ✦ National and regional fiber network providers ✦ Broadband and telecommunications service providers ✦ Cable companies ✦ Mobile service providers ✦ New market entrants ✦ Telecommunications resellers ✦ Construction, engineering, and tower maintenance companies ✦ Software companies ✦ Cloud or other vertical-service providers ✦ Research and education (R&E) networks 	<ul style="list-style-type: none"> ✦ Provide infrastructure expertise and facilities ✦ Provide capacity, equipment, networks, collocation facilities, and interconnection ✦ Emphasize economic development and technology innovation ✦ Provide market and technology expertise and innovation
Government and Community Partners		
Economic development organizations	<ul style="list-style-type: none"> ✦ Local organizations ✦ Regional organizations ✦ State organizations 	<ul style="list-style-type: none"> ✦ Identify broadband champions for rural development projects ✦ Operate their own broadband deployment and adoption programs ✦ Promote planning for broadband and advocating for its role in economic development ✦ Provide funding
Governments	<ul style="list-style-type: none"> ✦ Consortium of local governments ✦ States ✦ Inter-state collaboration on smart city applications where users cross state lines ✦ Federal agencies 	<ul style="list-style-type: none"> ✦ Participate in planning ✦ Participate in implementation ✦ Scale successful projects ✦ Participate in applications ✦ Funding and loans
Foundations/grant-making entities/Banks	<ul style="list-style-type: none"> ✦ Private foundations ✦ State and federal grant and loan programs ✦ Banks 	<ul style="list-style-type: none"> ✦ Fund and support broadband adoption and deployment ✦ Promote broadband access, equity, rural service, health and economic development
Community non-profits and community anchor institutions	<ul style="list-style-type: none"> ✦ Neighborhood and community centers ✦ Senior organizations and centers ✦ Museums ✦ Community-based organizations and institutions 	<ul style="list-style-type: none"> ✦ Identify target community and end users ✦ Market to targeted community and end users ✦ Use facilities and staff

Process for Choosing Partners

Broadband partnerships develop in different ways, as demonstrated by the case studies described below. Some partnerships grow out of the planning process that engages potential partners and identifies issues, solutions, and partnership structures.

A prime example is the North Georgia Network Cooperative, which developed when the participants in a regional economic development initiative recognized their mutual interests and established the cooperative. Others emerge when partners come together to solve a particular problem or achieve a goal the parties are uniquely qualified to address. New York City's partnership, led by its IT department and carried out by institutions and organizations with close relationships to community beneficiaries, illustrates this scenario. Governments may also seek partners for specific purposes, such as the Navajo Tribal Utility Authority's partnership with a private wireless company to provide the telecommunications expertise that it lacked.

Federal, state, tribal, or local laws and policies may govern the partner selection process. If funding sources are from grants or loans, local and tribal governments should check applicable laws or requirements for guidance about selecting and implementing partnerships.

The partnership selection process often begins when the government or tribe issues a Request for Proposal (RFP) or Request for Information (RFI), which specifies what the government seeks in a partner. The potential broadband partner is asked to explain how the arrangement will meet government needs for the project. A formal RFP or RFI may not be suitable for every broadband project, but its framework and questions can serve as a guide for soliciting important information about a prospective partner. Through the RFP and RFI processes, each potential partner can provide the following characteristics from its own perspective: capabilities, experience, relationships, expertise and resources.

After evaluating the RFP/RFI response, the community or project leaders should know whether the partner has:

- ✦ The requisite knowledge, skills, personnel, services, capacity, equipment or resources for the project
- ✦ A proven record of performance and the capacity to scale the project in a timely, appropriate manner

- ✦ Fiscal stability and strong management
- ✦ A shared vision for the project
- ✦ A clear vision for the scope and timing of the resources it will contribute
- ✦ Understanding of why public processes are in place and required

Even if the competitive RFP process is not used, community or project leaders should still consider the same selection factors. The tools at the end of this publication provide a list of considerations for assessing partner suitability.

The Partnership Assessment Checklist in the Tools section at the end of this Toolkit is a guide to evaluate potential partners for a broadband project.

The following case studies examine how regional planning activities in Georgia led to a non-profit partnership and how state agencies and non-profits in Rhode Island formed a partnership, as well as the process they used to select additional partners to help build a broadband network.

Organization: North Georgia Network Cooperative, Inc.

Purpose: *Enable technology-based economic development in North Georgia by deploying a high-speed regional fiber ring and providing interconnection points for last-mile broadband service*

Partnership Strategy: *Form a partnership among regional electric and telecommunications cooperatives with support from regional and county development authorities*

Facing a depressed economy caused by the closures of multiple area businesses, the Lumpkin County Development Authority recognized that the remaining local businesses could not fully promote themselves because they lacked the broadband capacity to do so. They realized that high-speed broadband access was imperative to enable businesses to stay in the area and be competitive globally. With economic development migrating out from Atlanta along the major interstate corridors, they also felt that North Georgia was poised to attract new technology companies. However, a study revealed that companies would not locate to North Georgia without better access to broadband.

Upon hearing the report findings at a regional economic development summit, participants noted that two of Georgia's 42 Electric Member Cooperatives (EMCs) had already invested in broadband infrastructure in North Georgia: Habersham EMC had built dark fiber and Blue Ridge Mountain EMC offered full triple-play service (broadband, telephone and video) to customers on its network.

The four-county region had already completed a needs assessment and identified potential partners. They formed a partnership consisting of two EMCs, five county economic development divisions, a telephone company, and a university to apply for a BTOP infrastructure grant to build 1,100 miles of new fiber-optic network. The regional group developed the North Georgia Network (NGN) (<https://go.usa.gov/xX3cj>), a fiber network to connect North Georgia with Atlanta. The electric cooperatives and communications service partners contributed additional funding and in-kind resources — staffing, equipment, and systems. NGN is managed by the North Georgia Network Cooperative, Inc., a new non-profit whose members include Habersham EMC, Blue Ridge Mountain EMC, and Georgia Communications Cooperative.

NGN also used contract-based partnerships and informal agreements with regional development authorities to expand services to members and improve project sustainability. Telecommunications service providers purchased transport services on NGN's backbone network and wireless service providers used NGN's fiber to reach remote customers. NGN's network also made it possible to launch Georgia's only 10-gigabit private cloud service for exclusive use by school systems, empowering them to create an educational experience that is not limited by school boundaries.

Regional development authorities continue to work with NGN to expand broadband access and drive economic development in North Georgia. Today, NGN's fiber network continues to grow through peering arrangements and community partnerships, with NGN backbone connections from southern Georgia to Washington, D.C., and Chicago.

“Businesses are moving to North Georgia. We tell them that they can sit at their screen in the daytime and go trout fishing after work. We’ve got some of the best trout fishing, hiking and pristine water in the region. And now we have fiber and new technology-based business too.”

— Paul Belk, President & CEO, North Georgia Network

Resource:

@ See the Appendix in the **Planning a Community Broadband Roadmap** (<https://go.usa.gov/xX3ju>) toolkit to read more about NGN's formation and its planning timeline.

Organization: Ocean State Higher Education Economic Development Administration Network

Purpose: *Build a middle-mile network and enhance library-based public computer centers in Rhode Island and Bristol County, Massachusetts*

Partnership Strategy: *Create a government-led and private-supported partnership based upon a structured partner selection process*

Ocean State Higher Education Economic Development Administration Network (OSHEAN) (<https://oshean.org>) began as an organization of non-profits, a tribe, universities, hospitals, and state agencies dedicated to developing a communications infrastructure to support research, education, public safety, and healthcare in Rhode Island. The partnership arrangements are formalized in a strong set of agreements and contracts, with highly collaborative working relationships. OSHEAN also relies on strategic alliances that mutually benefit OSHEAN, its members, and technology vendors.

OSHEAN received BTOP funding for Beacon 2.0 (<https://go.usa.gov/xX3cY>), a 450-mile fiber-optic backbone network that now connects more than 100 community anchor institutions in Rhode Island and southeastern Massachusetts. This project required OSHEAN to enlist a broad range of partners to design, build, and manage the network.

OSHEAN used a comprehensive RFP process to select a commercial provider to build the network and provide support services. The contract included provisions to accommodate changed circumstances — which enabled OSHEAN to build 80 additional laterals to connect community anchor institutions.

With the network in place, OSHEAN issued a RFI to explore partnerships with value-added service providers and entered into subsequent contracts for new cloud services.

OSHEAN implemented its Public Computer Center (PCC) project — Beacon 2.0 Library Computer Center (<https://go.usa.gov/xX33u>) — through a partnership with the membership organization of the Rhode Island public libraries, Ocean State Libraries (OSL) (<http://oslri.org/home/>). The partners worked together to expand local and shared library technology services, add videoconferencing, upgrade PCs and routers, and enhance training to improve people’s skills in applying for jobs and with general computer use. OSL also formalized a partnership with the Rhode Island Emergency Management Agency through a contract that allowed libraries to use that agency’s server for videoconferencing when not being used for emergency communications.

“As an OSHEAN partner and a library membership organization OSL is an aggregator. OSL provides Wide Area Networking, electronic content and systems, and emergency services to all public libraries in the state. The partnership with OSHEAN further supports our mission of connecting Rhode Island.”

— Lisa Sallee, Assistant Director, Ocean State Libraries

STEP 3: DETERMINING EACH PARTNER'S CONTRIBUTION

STEP 1

Understanding
Typical Broadband
Partnership
Structures

STEP 2

Finding the
Right Partners

STEP 3

Determining Each
Partner's Contribution

STEP 4

Developing the
Partnership
Framework

An effective broadband partnership spreads the risks and costs related to necessary capital investment, operations, execution challenges, and adoption hurdles between the partners. The type of project and partnership model will influence which attributes will create the right blend of experience, qualifications, knowledge, vision, peer network, and other characteristics for the partnership to be successful. The structure of each community's partnership reflects local needs and circumstances, each with a different mix of funding, assets, and resources contributed by the parties.

Determining the right structures will depend upon what each party wants to gain from the partnership. For example:

- ✦ Partnerships with a consortium of schools and libraries can aggregate demand for a long-term, bulk purchase contract.
- ✦ An alliance with commercial operators can invite investment support or capacity purchase commitments and support for network maintenance and operations.
- ✦ A middle-mile operator may require capacity to connect wireless towers or interconnect adjacent backbone networks.
- ✦ A local provider may want to serve specific pockets of residential or business customers.
- ✦ A research and education network may want to fund connections to universities and other high-revenue anchor clients.

Mapping Contributions

Local and tribal governments should analyze the capabilities of their prospective partnerships in three main areas: funding, resources, and assets. When planning successful partnerships, a useful technique is to draw a graphic illustration of how the funding, resources, services, and assets will flow among the various organizations involved in the project.

Each community's map will be unique to the local circumstances. At a minimum, this mapping exercise should depict the flows of:

- ✦ **Funding:** What will partners contribute to the project and what will partners receive for participating in the project and when
- ✦ **Assets:** What assets each partner will contribute and/or own and when
- ✦ **Resources:** What resources and facilities partners will provide and when

This section details how to illustrate partner relationships, using actual BTOP projects that reflect the four partnership structures discussed in the previous section, and how funding, assets and resources flow.

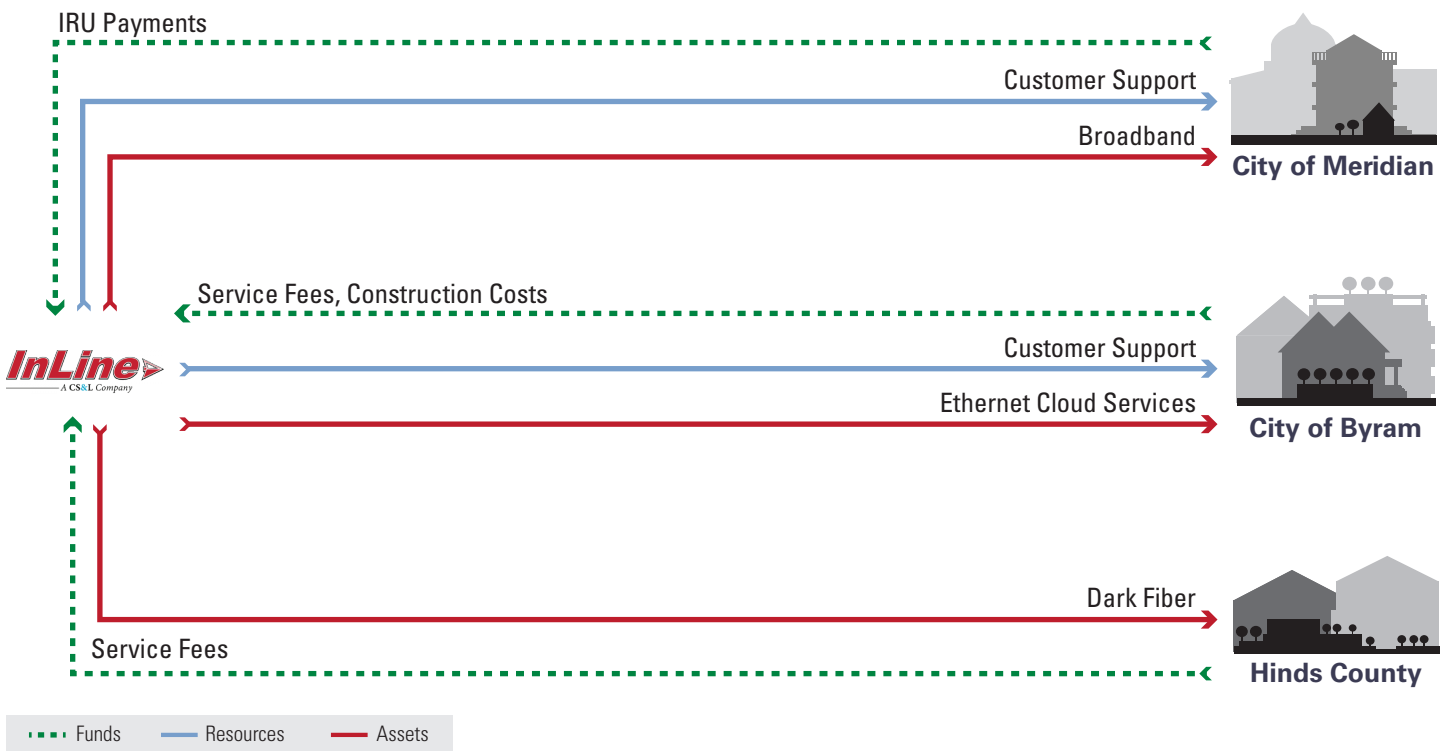
Private Sector-Led Partnership Contributions

A private sector-led partnership pairs a commercial operator (private or non-profit) that builds, owns, and operates the network with local and tribal governments and other community-based organizations. In a private sector-led partnership, the private company will expand and leverage its network to reach community anchor institutions and government facilities in exchange for its partners to aggregate demand from multiple locations. In this case, all parties benefit — the private-sector party gains continuing business and the public-sector partners are offered broadband connectivity at reasonable prices.

The first diagram is based on InLine, whose network extends into Mississippi, Arkansas, Louisiana, and Texas. This graphic illustrates how resources, assets, and funding flow between InLine and three governments in rural Mississippi. Each government had unique needs and resources and those are shown through the different types of funding, asset and resource flows depicted in Figure 1.

In this scenario, the City of Meridian pays InLine a service fee in exchange for shared broadband infrastructure and connectivity among city administrative offices and the

Figure 1 Private Sector-Led Partnership: InLine | Funding, Asset and Resource Flows



police, fire, and utility departments. This broadband connectivity allows the city to provide Wi-Fi to all buildings on its 20-acre municipal campus. InLine also provides customer support for these government users.

The City of Byram also pays InLine a service fee for private fiber broadband network services, including a cloud-based managed voice service. The city needed to implement certain applications across its facilities, but found that InLine’s network did not extend to certain required locations. As shown above, the city provided InLine with the funds to extend its network to additional government buildings.

Hinds County entered into a 20-year indefeasible right-of-use (IRU) lease with InLine for dark fiber. The county wanted to secure sufficient network capacity for applications that included a voice network, video surveillance, video arraignments, and e-government services (e.g., issuing permits online).

Government-Led and Private Sector-Supported Partnership Contributions

Another partnership approach is one in which a government entity takes the lead to identify broadband resources and

provide initial funding to create a network and then works with private broadband providers to operate the network for local governments and institutions.

Oregon’s Lane Council of Governments (LCOG) (<http://www.lcog.org/>), which was created in 1945 to enable local governments to plan and deliver services more effectively on a regional basis, had developed and managed broadband infrastructure projects, including those on fiber provided by broadband providers. In the 1990s, major telecommunications companies began constructing fiber networks along the Pacific Coast to connect major cities. Many small towns in Lane County saw an opportunity when the carriers called on them to negotiate local rights-of-way (ROW). Instead of requesting a fee for ROWs, the towns negotiated 12 strands of fiber from each carrier in the form of long-term IRUs that dedicated the capacity to local government use. Over time, a new government entity, the Regional Fiber Consortium (RFC), assumed the ownership and management of these resources.

BTOP funded a project by LCOG, RFC and their partners — Lighting the Fiber Middle Mile Project (<https://go.usa.gov/xX33w>) — to build a 100-mile regional fiber network and connect 130

“As a government entity, we’re not in the ‘ISP business’ — but we can facilitate connections for our members to telecom providers who are in that business.”

“We genuinely believe in open access and its potential to spur competition, and so far, what we are doing with broadband here seems to be working.”

— Milo Mecham, Planning and Development, Lane Council of Governments

community anchor institutions. The success of the partnership formed for this project directly resulted from the involvement of a wide and diverse group of partners — 15 city governments, 12 school districts, two utility boards, a health network, first responders, a tribe and private telecommunications companies.

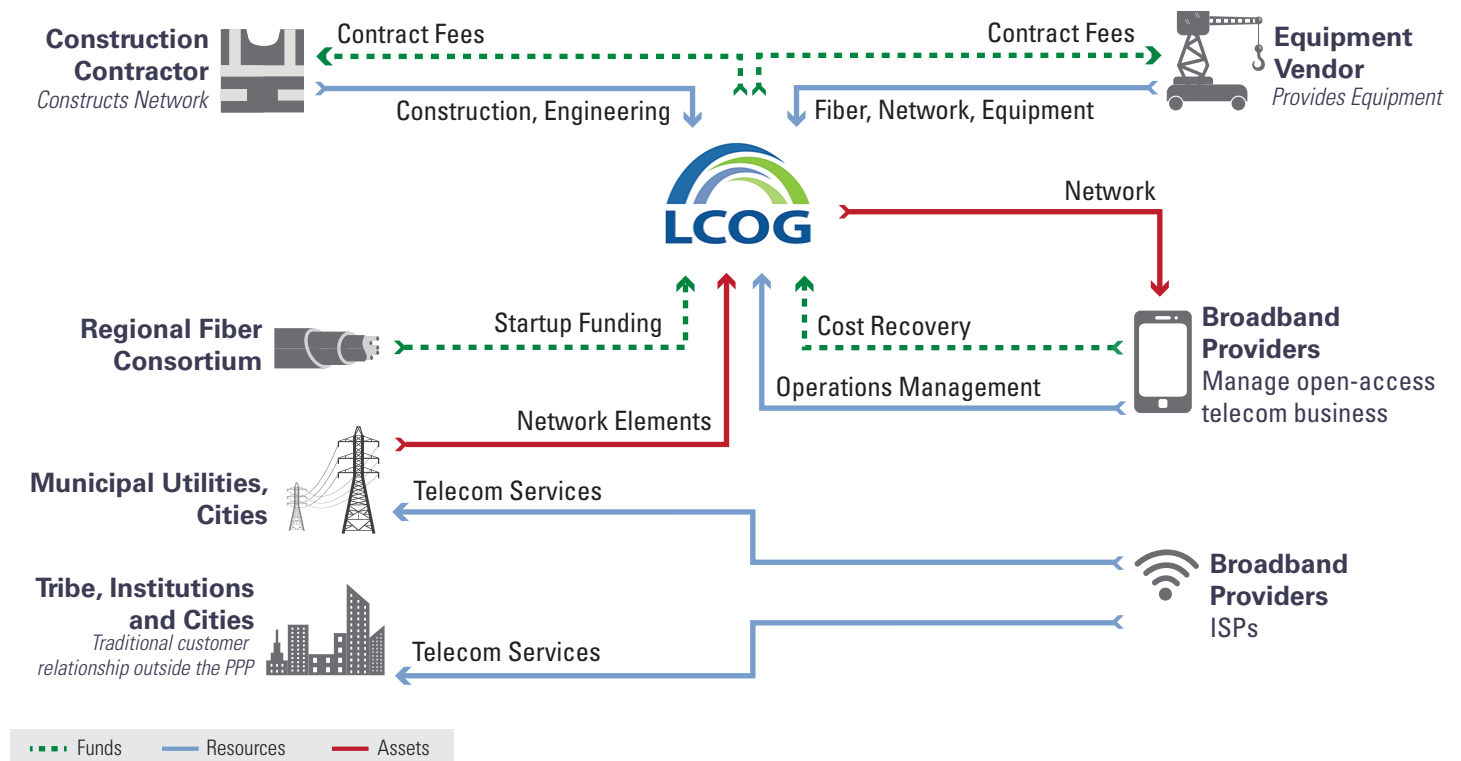
The diagram shown as Figure 2 below does not fully reflect the multiple partners involved in the project or the varied business relationships; however, the graphic does illustrate some of the general flows of funding, assets and other resources among the parties. From the beginning, the local governments eagerly committed underutilized network elements to LCOG to form the building blocks of the middle-mile network. The diagram shows

these asset contributions by three types of local government partners — the RFC’s dark fiber, fiber networks of several municipal utilities partners, and other city fiber.

Figure 2 also shows that LCOG played a principal role in working with construction contractors and equipment vendors to build the network across the region. Private providers use the fiber and equipment that LCOG installed to provide broadband services directly to community anchor institutions, local governments, and other customers.

To encourage competition in the future, LCOG specified that sufficient capacity must remain in the fiber conduit to accommodate any future users that could potentially emerge.

Figure 2 Public Sector-Led and Private Supported Partnership: LCOG | Funding, Asset and Resource Flows



Government-Led and Non-Profit-Supported Partnership Model

Broadband access and adoption projects are often developed as government-led partnerships. Figure 3 presents an example of New York City's Connected Communities program, which involved several types of partnerships to expand and enhance public computer centers in low-income communities.

The NYC Department of Information Technology and Telecommunication applied for and received two BTOP Sustainable Broadband Adoption (SBA) grants and one Public Computer Center (PCC) grant (<https://go.usa.gov/xX33E>). The city supplemented these grants with additional funding from local broadband service providers, non-profit organizations, private foundations, and funds from the city budget to reach vulnerable, low-income populations throughout the city and to strengthen organizations that were already providing computer training and support. The PCC grant built operational partnerships with community anchor institutions with a presence in low-income areas:

- ✦ Brooklyn Public Library
- ✦ New York Public Library

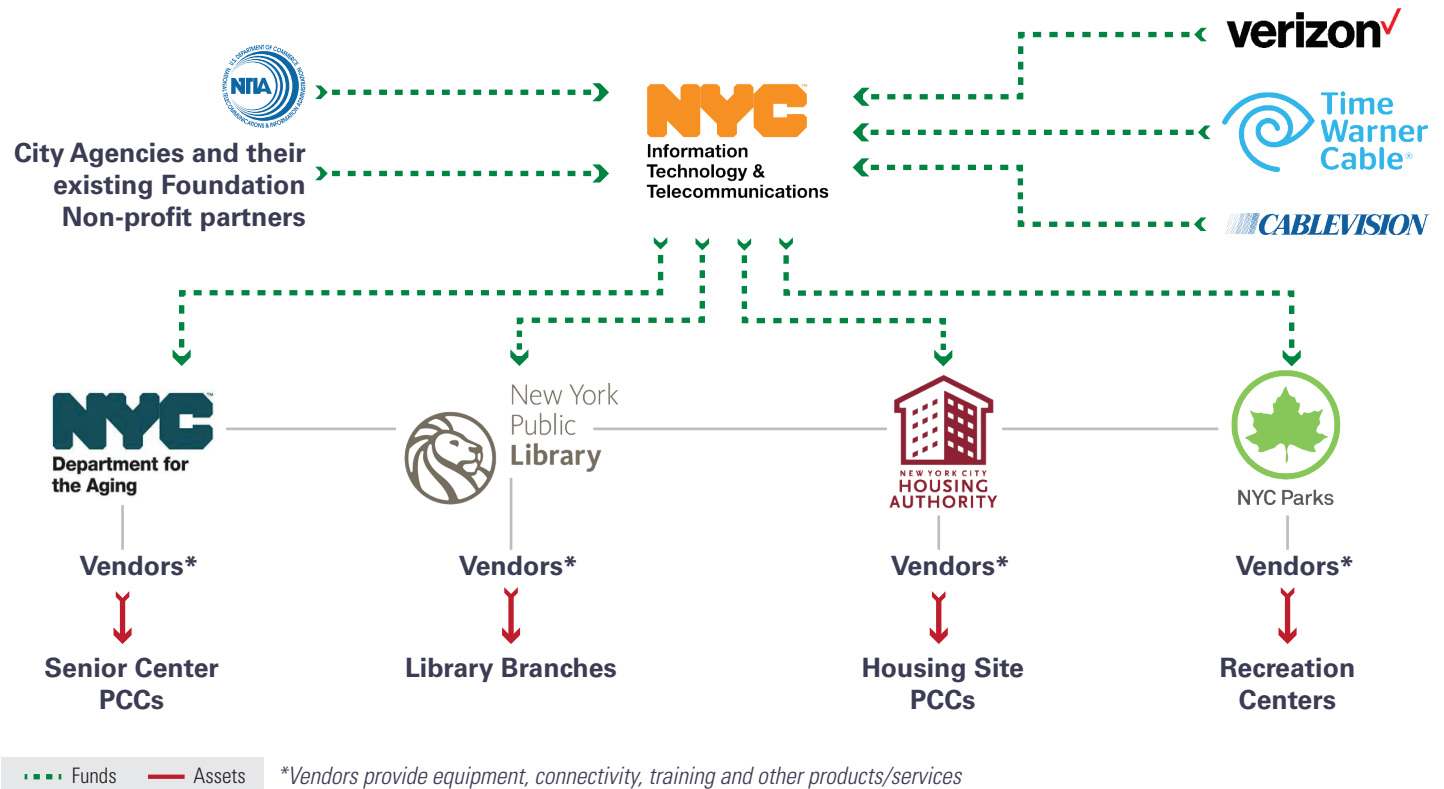
- ✦ Queens Borough Public Library
- ✦ New York City Department for the Aging which carried out its training activities through Older Adults Technology Services (OATS)
- ✦ New York City Housing Authority
- ✦ New York City Parks Computer Resource Center

By partnering with city departments and non-profits, New York built on existing social and physical infrastructure, filling in gaps as needed, to bring services to residents in all five boroughs through 100 neighborhood centers. In addition to the neighborhood centers, the city outfitted three Digital Vans

“Finding the right balance between what should be centralized and what should be local was a defining dynamic in the implementation from the beginning.”

— A. Kathryn Hohman, Program Director, Telecommunications Policy and Strategy, New York City Department of Information Technology & Telecommunications

Figure 3 Public Sector-Led and Public/Private/Non-Profit Supported Partnership: NYC | Funding and Resource Flows



(<https://go.usa.gov/xX33n>) that operate on regular schedules to bring classes and services within steps of residents’ homes. While each center had the autonomy to customize client services, the city-wide, coordinated approach worked to align goals and priorities, facilitated a consistent look and feel, and leveraged a broad-based marketing and outreach campaign. These centers became key partners when the city rolled out new e-government services, such as ACCESS NYC (<https://go.usa.gov/xX33N>), an online service that helps people navigate benefit qualifications across city, state, and federal programs.

Joint-Ownership Model

The fourth common public-private partnership approach involves a local government or tribal enterprise and a private telecommunications partnership, where both commit resources, including funding and network infrastructure, to a new legal entity that they establish to operate a network.

The Navajo Tribal Utility Authority (NTUA) demonstrates this type of partnership. Figure 4 maps the resources contributed by the two entities that chose to form a new legal entity to operate the wireless network. This diagram represents NTUA Wireless, which was formed by the NTUA and Commnet Wireless in association with the BTOP-funded The Navajo Nation Last-Mile/Middle-Mile Project (<https://go.usa.gov/xX33V>) that deployed a

fiber-optic and microwave network to provide broadband service throughout the Navajo Nation. NTUA Wireless is the primary provider of last-mile service.

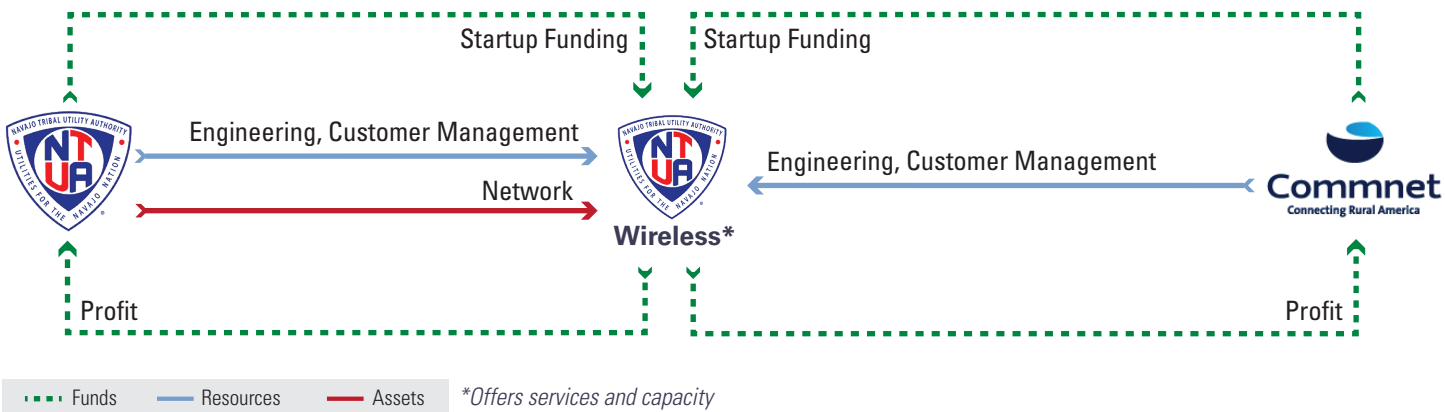
Both NTUA and Commnet Wireless provided start-up funding and other resources, including network assets. NTUA provided its management and utility-billing expertise to the venture; Commnet Wireless provided its network engineering expertise and experience with customer management.

Variations on this partnership structure include cases in which the network assets are owned by the new entity or by its private telecommunications partner. In other cases, local governments or tribal governments have created an entirely new entity for the broadband operation, especially in cases where legal or other requirements demand that they maintain an arm’s length relationship with network operations.

Impact of Partner Contributions on the Project or Business Plan

Mapping these contribution flows within the partnership framework will assist the parties in answering key questions about their relationships and agreeing upon commitments before the project begins. Each contribution will have a significant impact upon the project or business plan.

Figure 4 Joint Ownership Model: NTUA | Funding, Asset and Resource Flows



Step 3: Determining Each Partner's Contribution

Funding

Knowing the timing and scope of what each partner is contributing financially to the broadband initiative is critical, particularly in capital-intensive infrastructure projects. As funding contributions are mapped out, project leaders should understand:

- ✦ All sources of funding to commence and sustain operations
- ✦ All requirements set by each partner contributing funds
- ✦ The point in the project's timeline that each partner will make funds available — a significant factor if multiple large contributions are involved
- ✦ The timing of additional financial and in-kind contributions and the impact upon the project timeline
- ✦ Precise valuations of each partner's in-kind donation of equipment, service, or other contribution
- ✦ The specific amounts that each partner will contribute to the project and the schedule of all payments
- ✦ Agreements pertaining to deliverables and payments (*e.g.*, time, accomplishments, services, delivery)

Assets

In anticipation of the project's start, the community leaders should use the following discussion points with partners to reach consensus on the range of details concerning contribution of assets, such as broadband capacity, dark fiber, other network equipment, computers, buildings, mobile facilities, and space:

- ✦ Which party owns each contributed asset?
- ✦ Which party provides each specific asset (*e.g.*, equipment, capacity, point of presence) and when?
- ✦ The point at which ownership occurs and if any transfers of ownership are expected in the future
- ✦ Which party maintains the collective inventory of assets?
- ✦ What agreements related to the asset accounting process should be put in place?
- ✦ What agreements related to distribution, maintenance, accounting and ownership of assets (*e.g.*, time, activities and accomplishments) should be executed?

Resources

Partners referenced in the above examples contributed telecommunications services, construction and engineering services, staff support, and customer service. Key points for discussion among potential partners include:

- ✦ The specific resources being provided and their timing
- ✦ The scope and experience level of the staff being provided and the point in the project timeline that these resources are made available
- ✦ The customer services being provided
- ✦ The financial services being provided
- ✦ The timing of the other resources being committed
- ✦ Agreements associated with the resources provided, their timing, and duration

Tools:

The *Partnership Function and Contribution Checklist* in the Tools section at the end of this Toolkit is a guide to consider the various dimensions affecting partners in a broadband project.

STEP 4: DEVELOPING THE PARTNERSHIP FRAMEWORK

STEP 1

Understanding Typical Broadband Partnership Structures

STEP 2

Finding the Right Partners

STEP 3

Determining Each Partner's Contribution

STEP 4

Developing the Partnership Framework

Generally, partnerships with a high degree of interdependency, or where funds are exchanged, require more formal partnership agreements, such as Memoranda of Understanding (MOUs) or contracts. If parties are not transferring funds or assets or the partner's deliverables are not central to the project's goals, then a more informal agreement may suffice. The framework for partnerships includes:

- ✦ Developing formal or informal partnership agreements
- ✦ Assessing the regulatory and operational context
- ✦ Maintaining strong partner relationships

NTIA has found that following the best practices enumerated below led to successful partnerships among its BTOP grantees:

Developing a detailed partnership agreement: Contracts, MOUs and other agreements increase the probability of a successful partnership because all parties will understand what is expected. Codifying a fair deal, known as a "win-win," should be the basis.

Establishing measures to facilitate coordination early in the process: A large number of partners make it more complex to coordinate the project, resolve conflicts, and govern the operations over the long term. A robust governance model will assist the partners to make critical decisions; resolve conflicts; and foster inclusiveness, transparency and accountability.

Communicating openly about partnerships: Relationships among all the partners should be transparent. The value and relevancy of the partnership should be communicated openly to build support for the project and mitigate potential misconceptions.

Actively managing partnership agreements to reflect changes as they occur: No matter how clearly defined roles and deliverables are at the start of the project, expect change. Partnership agreements need clauses that include procedures for managing change and dispute resolution. In addition, with any government entity with responsibility for public jurisdiction, sovereignty clauses will be included.

Developing Formal and Informal Partnership Agreements

In formal partnerships, the responsibilities are codified within contracts, grant agreements or other legally binding documents. These include contract-based partnerships (*e.g.*, for managed services, dark fiber IRUs, cloud services, public computer centers, and construction contractors).

Formal partnership agreements are necessary when:

- ✦ Funds change hands in exchange for deliverables
- ✦ Parties commit to provide assets, facilities and/or equipment
- ✦ Staffing will be provided
- ✦ Services or capacity will be provided
- ✦ Existing partnerships or contracts with third parties will be leveraged

Informal partnerships can be important to a project. These arrangements are often implemented without a traditional contracting process and occur in cases where:

- ✦ The broadband project can further the goals of partner organizations, such as workforce development and education
- ✦ Both parties can mutually aid each other (*e.g.*, announcements in each other's newsletter)
- ✦ The informal partner's mission is compatible with the broadband project (*e.g.*, community foundation)

Even with these informal partnerships, the project's partnership policy or plan should still specify how the lead organization will maintain these affiliations and any dispute resolution procedure.

Assessing the Regulatory and Operational Context

In order to achieve successful partnership outcomes, local and tribal governments should consider developing a formal framework that entails:

- ✦ **Statutory, Legislative and Regulatory Context:** The state and local statutory requirements for entering into partnerships should be reviewed to ensure compliance. Sometimes states or localities restrict the projects that governments can undertake and/or operate. Research will reveal if local or state legislation is needed to enable partnerships.
- ✦ **Policy Approach:** Reviewing local policies on partnerships will determine if a policy framework should be developed – that is, how broadband will be integrated into tribal and local goals and long-term plans. If a local or tribal government has experience with partnerships in an area other than telecommunications, it is useful to understand any problems that arose and how to build upon what was learned.
- ✦ **Procurement:** The procurement rules and regulations that apply to contracts, MOUs, IRUs, or other instruments used for the partnership should be assessed. As partners are identified and selected, it is crucial to comply with these regulations (*e.g.*, “best value” or “sole source”). A thorough understanding of the required procurement procedures will help evaluate what each potential partner brings to the table during the partner selection process.
- ✦ **Operations and Financing:** The existing management structure of the local or tribal government will define any operational or financing role a government partner undertakes. This ensures that management is aware of the resources, staff, and financing required and works with local governmental bodies to address project needs on a timely basis.
- ✦ **Partnership Agreements:** Agreements take many forms, such as contracts, MOUs, and service-level agreements. The agreement should detail the assets, resources, and funding flows for the partnership, reporting requirements, and standard contract terms (*e.g.*, termination, dispute resolution, principal contacts). All financial obligations or critical paths to the project’s success should be documented in the agreement.
- ✦ **Monitoring and Oversight:** The type and purpose of each partnership will determine the level of monitoring and oversight required; however, most partnerships benefit from establishing a process to report and monitor partner progress and provide oversight.
- ✦ **Evaluation:** Incorporating evaluation as part of the plan greatly enhances partners’ project buy-in and ensures that everyone is aware of the project’s outcomes.

Maintaining Strong Partner Relationships

Although trust, mutual benefit, and mission alignment are core components of any partnership, clarity on roles, governance, responsibilities, timelines and deliverables is critical to the long-term success of these relationships.

The best broadband partnerships are purposeful relationships built upon well-defined processes, open communications, and flexibility.

Regular meetings, status reports, and progress reports are important tools to ensure partners are on track to meet commitments. Many projects dedicate a full-time or part-time project manager to track partner obligations, identify issues, and maintain strong communication with partners and vendors. Broadband partners may miss deliverables or commitments, but maintaining regular and frequent communications allows all partners to be responsive to issues before problems occur. Useful communication methods include regular calls, in-person meetings, and written reports on key activities, annual reports, assessments, and audits.

NTIA compiled the following best practices for successful partnerships:

- ✦ Start with a strong understanding of roles and responsibilities
- ✦ Communicate regularly in writing, through conference calls and at meetings

Key Elements in a Partnership Agreement

- ✓ The parties involved
- ✓ Expectations
- ✓ Roles and responsibilities
- ✓ Deliverables
- ✓ Timelines and key milestones
- ✓ Project dependencies and/or risks that could impede performance
- ✓ Remuneration, *e.g.*, costs, rates of reimbursement, charges
- ✓ Intellectual property sharing and management
- ✓ Procedures for managing change
- ✓ Terms for dispute resolution

- ✦ Designate a lead representative to participate regularly in group calls or meetings for each partner
- ✦ Monitor schedule milestones and deliverables on a regular basis
- ✦ Listen and build trust; relationships grow as partners develop trust

Tools:

The *Legal Context and Contract Checklist* in the final section of this publication is only a guide to planning contractual relationships among partners in a broadband project. This guidance does not provide any legal advice. We recommend that community leaders consult an attorney if they need legal advice on a specific project.

Organization: OpenCape Corporation

Purpose: *Deploy a middle-mile fiber-optic and microwave network throughout the Cape Cod region.*

Partnership Strategy: *Use formal partnership agreements and informal partner affiliations.*

Cape Cod, its nearby islands of Martha's Vineyard and Nantucket, and portions of southeastern Massachusetts had such inadequate broadband and cell phone service that when OpenCape Corporation (<http://opencape.org/>) began in 2010, more than 300 people attended the kick-off meeting to offer help, voice concerns, and begin forming action-oriented partnerships.

The OpenCape Corporation Middle Mile Project, which BTOP funded, planned a 350-mile fiber broadband network to serve the entire region. OpenCape, a non-profit, used a mix of formal and informal partnership agreements to develop and define relationships with key partners. OpenCape wanted to keep the organization small and leverage the regional expertise in telecommunications construction, operations and services. It used standard RFP and contract processes to solicit commercial interests and select a network provider, which built and now operates the middle-mile network connecting nearly 100 community anchor institutions.

When OpenCape's clients requested ultra-reliable data storage servers, OpenCape again went to the marketplace with an RFI and contracted with a leading vendor in the field of virtualization, business continuity, disaster recovery, and performance tuning.

Two informal partnerships with local governments have been central to the success of the OpenCape project -- the Smarter Cape Partnership and the Smarter Governance Committee.

Smarter Cape is an ongoing collaboration among OpenCape, the local Chamber of Commerce, the Cape Cod Commission, the Barnstable County Economic Development Council, the local technology council, and other groups. Although it was initially formed to represent public and community interests in OpenCape, Smarter Cape's activities have expanded to manage initiatives on digital regionalization, promote business start-ups, drive local innovation, and preserve water quality.

The Smarter Government Steering Committee, convened by the Cape Cod Commission as a governance committee, is an informal partnership among 15 towns working together to determine how to use this new technology and infrastructure to innovate new e-government applications. The group provided input to the Smarter Cape and OpenCape projects. These informal partnerships helped to establish a Regional Wide Area Network (RWAN), which today uses OpenCape's broadband network to connect all 15 Cape municipalities and provide these governments with better, faster services at lower costs.

“Regionalization tends to be a taboo word but telecommunication is about networks. Taking a regional approach makes a lot of sense. It provides efficiencies to towns and decreases costs. It's smarter.”

— Kristy Senatori, Director of the Strategic Information Office, Cape Cod Commission

Organization: Technology for All

Purpose: Increase the capacity of public computer centers offering digital literacy training to low-income, underserved, vulnerable populations in Texas

Partnership Strategy: Develop structured agreements with city and county government partners to serve additional clients

Technology for All (<http://techforall.org>) (TFA), a non-profit that already had significant experience in digital learning, received a BTOP PCC grant for its Texas Connects Coalition (<https://go.usa.gov/xX33j>) project. To reach disenfranchised, non-English-speaking communities across Texas, the Houston-based non-profit created additional partnerships with governments and non-profits to expand programs through formal agreements.

TFA developed MOUs with the City of San Antonio and Brazos Valley Council of Governments that specified the government commitment to their communities and TFA's obligations to provide training, support, and equipment procurement. Austin FreeNet also served as a subrecipient on the grant. These partners augmented TFA's existing relationships with the City of Houston and the Houston Public Library.

TFA and its partners worked together to identify local organizations with sites that could be used for training and public access to computers. TFA's criteria for seeking a community partner included:

- ✦ Existing centers with a track record of providing community services
- ✦ Activities such as job training, senior services, and immigrant-support services that would benefit from increased access to computing technology and digital access
- ✦ Organizations that committed to scaling up to meet multi-year training commitments
- ✦ A broadband connection of at least 50 Mbps for computing centers
- ✦ Commitment to use TFA reporting tools to measure outcomes
- ✦ Interest in sustaining services beyond the grant period

This network of partners enabled TFA to put together a program that spanned 96 different sites across much of Texas, reaching 232,000 people with over 3.7 million hours of training. Clients included seniors, Latinos, African Americans, low-income residents, immigrants, persons with disabilities, homeless people, and rural residents. Learners had access to online GED training, ESL classes, college exam preparation, financial aid and scholarship applications — services that continue to be sustained in many of those centers after the funding from BTOP ended.

“TFA can teach them about computers, but the local organizations have to have credibility with the clients that come in the door. Credibility is a big deal.”

— Dr. Will Reed, President and CEO, Technology for All

PUTTING BROADBAND PARTNERSHIPS INTO CONTEXT

Forming partnerships is a key building block in creating and implementing a sustainable broadband project. The types of partnerships that can be undertaken include:

- ✦ Private sector-led partnerships
- ✦ Government-led and private sector-supported partnerships
- ✦ Government-led and non-profit-supported partnerships
- ✦ Joint-ownership model

As demonstrated by the case studies in this publication, no two communities will embark on a broadband partnership in the same way because each has different requirements, contributors, resources, and needs. Partnerships vary based on assets, funding, and resources. Successful partnerships are based on cost sharing, institutional collaboration, expertise, and support.

NTIA encourages tribal and local governments embarking on broadband projects to take the steps outlined here to develop partnerships that bring the project the needed funding, assets, and resources that will sustain the project over the long-term, including:

- ✦ Searching for the right mix of partners
- ✦ Delineating the roles and responsibilities of each partner
- ✦ Evaluating the most suitable structure and procurement process
- ✦ Identifying partner asset, resource, and funding flows
- ✦ Developing the framework for how the partners will work together
- ✦ Building partner relationships as the broadband project is implemented

Partners are strategically important as a tribal or local government moves to implement its broadband project and ensure its long-term sustainability.

Resource:

Look for BroadbandUSA's upcoming publications, *Implementing the Community's Broadband Network Vision* and *Sustaining Broadband Networks*, to learn more about how partners collaborate successfully to facilitate broadband infrastructure projects.

STEP 2 TOOL: PARTNERSHIP ASSESSMENT

The following considerations can be used to assess potential partnerships and determine partnership terms.

Checklist: Partner Assessment

Potential Benefit of Partnership

- Expanded awareness of broadband opportunities
- Technical, operational, or other expertise
- Access to funding or resources
- Vertical program or applications expansion
- Client demographic
- Geographic coverage
- Community awareness and trust or prestige

When a Partnership Should be Considered

- The goals are central to another potential partner's mission
- Another organization has more experience in the specific area of need
- Partnership enables new broadband services or initiatives
- Partnership increases community support for the broadband initiative
- Both parties benefit from working together

Partner Assessment

- Are the parties' goals, objectives, and timeframe aligned?
- For which party is the proposed service or function a core area of expertise?
- Will the partnership expand the parties' reach to constituents and consumers?
- Does the partnership expand geographic coverage to the desired market areas?
- Will the partnership expand service and/or program offerings and increase the impact of the program in different fields such as education, economic development or health?
- Will the partnership reduce the cost of planning, financing, deploying or operating the broadband project?
- Which of the parties has a track record for performance and strong references?
- Does each partner carry the required level of insurance?
- If one of the parties is part of a larger entity, does the broadband initiative have broader support within that organization?
- Do the parties have strong management, organizational capacity, and fiscal stability?
- Are levels of personnel appropriate to carry out the work?

STEP 3 TOOL: PARTNERSHIP FUNCTIONS AND CONTRIBUTIONS

The following checklist proposes some of the dimensions of the partnership framework.

Checklist: Partnership Contracts and Agreements

Broadband Partner Functions

- Network peering
- Sales and marketing
- Wholesale/retail broadband services
- Funding/investment
- Network management
- Digital literacy
- Broadband adoption
- Training
- Compliance, monitoring, and oversight
- Evaluation

Partner funding, resources, and asset flows

- How does money flow?
 - Who pays whom, when, and for what?
 - What triggers payment?
- How do assets flow and under what terms?
 - Are assets given, granted, loaned, or leased?
- What resources are provided via partnership agreements (*e.g.*, training materials, staff, services, customer records)?

STEP 4 TOOL: LEGAL CONTEXT AND CONTRACT ELEMENTS

The following checklist notes that the form and nature of the agreement must meet local policies and regulatory requirements and provide an effective structure for the work to be performed.

Checklist: Partnership Contracts and Agreements

Form of Partnership Agreement

- Handshake
- Mutual agreement
- Memorandum of Understanding
- Written contract
- Contract with performance penalties

Legal and Regulatory Context of the Partnership

- Local
- State
- Policy
- Procurement
- Financing parameters
- Operational parameters

Key Components of a Partnership Contract

- The parties involved
- The expectations of the partnership
- Roles and responsibilities
- Expected deliverables
- Project timelines and milestones
- Dependencies and/or risks that could inhibit performance
- Remuneration (*e.g.*, cost-sharing, rates, charges)
- How intellectual property (IP) will be shared and managed
- Procedures for managing change
- Terms for dispute resolution

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BroadbandUSA hopes this toolkit provides communities with practical information, tools and guidance to improve partnership outcomes for broadband programs. BroadbandUSA welcomes feedback and requests for other guidance as part of our ongoing support to communities that are advancing the important work to increase broadband access and adoption.

CONTACT US

The National Telecommunications and Information Administration (NTIA) is the Executive Branch agency principally responsible for advising the President on telecommunications and information policy issues. NTIA's programs and policymaking focus largely on expanding broadband Internet access and adoption in America, expanding the use of spectrum by all users, and ensuring that the Internet remains an engine for continued innovation and economic growth.

NTIA's BroadbandUSA program is dedicated to helping communities achieve their broadband missions. NTIA can offer assistance to communities as they plan for broadband efforts, including stakeholder outreach activities. If you have additional questions about the information contained in this guide, please contact us at BroadbandUSA@ntia.doc.gov or 202-482-2048.

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