

# Leverage Partnerships to Ensure Fiber Broadband Success

By exploring available resources and identifying funding and partnership opportunities, broadband deployers can provide community residents and businesses with broadband access quickly and efficiently.

By Nathan Stenson / *Nokia*

**T**he positive economic impact of expanding broadband access and closing the digital equity gap is undisputed. A report by the Brookings Institution noted that increasing broadband access and use spurs “higher property values, increased job and population growth, higher rates of new business formation, and lower unemployment rates,” in addition to improved health and life outcomes and educational opportunities. The same report cites a World Bank estimate that a 10 percent increase in broadband penetration can lead to a 1.2 percent increase in real per capita GDP in developed countries.

Why governments worldwide are making a concerted effort to increase fixed broadband access, particularly in rural, remote and underserved areas, is no mystery. As they do, many are turning to optical fiber networks rather than copper wire-based alternatives. Optical fiber is faster, offers greater bandwidth, consumes less energy, lasts decades longer, is more secure and is easier to maintain than traditional copper or coax cable. Fiber optic networks deliver a much faster, more enjoyable internet experience because web and streaming content move at light speed for near-instantaneous downloads.

Increasingly, “fixed broadband” is synonymous with fiber optic cable. According to the Organization for Economic Cooperation and Development (OECD), fiber is now the dominant broadband technology in half of OECD countries.

The most high-profile push for broadband expansion is in the U.S., where the 2022 Infrastructure Investment and Jobs Act allotted \$65 billion for broadband deployment in underserved communities. Soon, 14.5 million Americans in those communities will gain broadband access to support business, education and more with the Broadband Equity, Access, and Deployment (BEAD) Program through the National Telecommunications and Information Administration (NTIA). The BEAD Program prioritizes fiber connectivity projects.

For regional operators, communities and utilities, the question now is how best to ensure swift, successful deployments. My advice, based on experience, is for operators

to ensure their fixed broadband deployments are built on strong partnerships and committed teamwork.

## A COMPLEX ECOSYSTEM

Most broadband deployments to date have been major projects undertaken in heavily populated areas by large operators with ample expertise and resources. However, the new wave of broadband deployments is different in the following ways:

- More stakeholders are involved. A typical project may require the participation of banks, consultants, construction companies, utility companies, value-added resellers (VARs), systems integrators and equipment providers.
- Many projects are financially complex, involving public-private partnerships and different ownership models.

Because of these differences, issues may arise around estimating and procurement, financing, scheduling (many grants specify mandatory completion dates), underground utility easements, construction, equipment availability and supply-chain issues and servicing post-deployment. Any one of these issues can cause delays and/or cost overruns that threaten the project, its funding or post-deployment success.

## THE GOOD NEWS

Small, rural deployments are no longer relegated to working with vendors that may lack resources, experience and business relationships to ensure the job is done right the first time. Broadband deployers can access equipment from the same global network of equipment providers and their ecosystem of partners that supply large operators.

Just as important, deployers can take advantage of all the benefits these companies offer, including leveraging existing relationships with system integrators, service providers, consultants and construction companies. They have years of experience and have been tested and proven in a broad range of situations.

## THE BETTER NEWS

The fiber broadband ecosystem understands the challenges smaller operators face, and organizations in the ecosystem are providing more resources to strengthen partnerships and support. These efforts include:

- **Educational resources.** A lack of knowledge about fiber networking can be an obstacle to utilities and community organizations seeking to bring broadband to their areas. Websites such as Nokia's Fiber Techzone offer a wealth of useful information about building, monetizing and operating fiber networks.
- **Broadband money.** This U.S.-based service enables local ISPs, REC, and community networks to discover and secure broadband grants under the BEAD Program. The website is truly a one-stop shop for anyone seeking to expand broadband access. It enables users to find broadband funding opportunities, get expert help, build community support, explore matching fund sources, participate in conversations with industry leaders, partner with key allies and more.
- **"Network in a box" packages.** Many small operators have found themselves unable to secure the necessary materials from their established supply chains to meet their self-imposed construction schedules or regulatory-imposed milestones. Equipment manufacturers working with their partners are responding to this need – and taking the complexity out of smaller broadband projects – by building and allocating equipment specifically designed for the projects.

These resources are making it much easier for communities, utilities and other stakeholders to succeed in bringing broadband to their businesses and families – on schedule and within budget.

## BROADBAND PARTNERSHIPS WORK

When partners in a broad, diverse ecosystem collaborate on a fixed broadband project, the results speak for themselves. For example, a regional utility company serving seven counties in the U.S. recently sought to better serve its customers and broaden its revenue base by deploying a robust, fixed broadband network.

After evaluating the options, the company chose to deploy a passive optical network (XGS-PON) to serve its more than 478,000 business and residential customers. XGS-PON has the advantage of supporting high-speed, 10 Gbps data transfer with the capability to boost speeds up to 25 Gbps today, thereby accommodating network demands for decades to come.

After a competitive bid, the utility chose a systems integrator with deep fiber optic expertise to lead the project, delivering the core and middle infrastructure. The systems integrator worked with its equipment partner to spec and service the network.

The first phase of the project, currently underway, includes the construction of the fiber network backbone, which runs along the embedded electrical lines. Phase two will expand the network rollout to additional areas and continue until fiber is deployed to cover the utility's service area. When complete, the company will be able to offer a full range of broadband services, including faster, more reliable internet, TV, voice and other data-rich applications.

## TAKING THE NEXT STEPS

At long last, utilities and local authorities in many underserved areas have the opportunity – and the funding – to bring communities fully into the digital world. To make that happen, I recommend that prospective operators begin by exploring the resources listed above. Become familiar with the essentials of broadband networking and ask questions. Identify the funding sources and/or partners that can help finance the project. When it is time to seek bids for the project, choose a fiber broadband vendor with a team of partners equipped to address the following key criteria:

- **Lowest risk.** In something as complex as a broadband deployment, experience matters. Seek a team of vendors that have worked collaboratively in the past, have a high level of mutual trust, and know how best to leverage one another's capabilities.
- **Ease of use.** Once deployed, a broadband network needs to be managed. The solution should include intuitive tools for monitoring, troubleshooting, provisioning and upgrading.
- **Future-proof.** Ensure that the broadband technology deployed can be expanded as new applications come online and demand grows over the long term.
- **Equipment availability and logistical ability.** Equipment availability issues can cause delays that increase costs and jeopardize funding. Fiber broadband providers and their partners can ensure on-time delivery.

Leveraging partnerships and following these recommendations will help ensure a well-run project, enabling community residents and businesses to access the broadband they deserve as soon as possible. Fiber broadband enables digital transformation, driving productivity, efficiency and economic prosperity. 🌱



*Nathan Stenson is the vice president of CX Global Partner Channel at Nokia.*