

The Basics of Public Funding for Fiber Networks

Small, independent service providers can use several public funding opportunities to help cover initial startup costs.

By Wade Anderson / IQGeo

Developing a fiber network is expensive. Costs and resourcing can add up quickly when purchasing materials and components, hiring labor, installing circuits and marketing potential customers.

Small fiber network operators such as internet service providers (ISPs), electrical cooperatives, municipalities and incumbent local exchange carriers (ILECs) struggle to compete. In highly competitive markets, justifying the capital investments needed to deliver high-speed broadband to subscribers is difficult, especially in areas with low population densities.

In the U.S., public funding opportunities to help fiber network developers cover initial startup costs are available. Such programs lower the financial barrier to entry and accelerate profitability, allowing more companies to compete for subscribers with high-quality broadband services.

PUBLIC FUNDING IMPERATIVE

The U.S. federal government is willing to provide financial support for fiber development in specific geographies because of the growing digital divide between urban and rural areas. Millions of people still lack access to critical technologies and information, so businesses of all sizes have difficulty remaining competitive in the digital age.

In practice, this translates into children falling behind in school, residents missing out on government services, and professionals

having limited ability to upskill. The digital divide will grow more prominent as time goes on, which is why the government is stepping in to make breaking into new markets that may not have been commercially viable in the past easier for fiber developers.

For people seeking to increase access to fiber broadband in underserved areas, below are several funding sources to help pay for projects and recommendations on where to turn for guidance.

RDOF AND EDA

The FCC's Rural Digital Opportunity Fund (RDOF) is a \$20 billion program that will disburse funding over 10 years. RDOF funding incentivizes telecom providers to build fiber-to-the-home (FTTH) networks in rural communities. RDOF is technology agnostic, meaning network developers can use multiple technologies within their infrastructures. However, RDOF favors fiber because of its high speed and low-latency. Service providers can visit www.fcc.gov/reports-research/maps/auction-904-updated-jun20-eligible-areas to view areas eligible for RDOF funding.

The Economic Development Administration (EDA) in the Department of Commerce administers grants to support regional and local broadband projects as part of more significant growth initiatives. The entity also assists in scoping out proposals to help grant seekers plan their submissions. To see the EDA's



The Schools and Libraries Program, also known as E-Rate, supports internet access, telecom services, internal connections and related maintenance for schools that could not otherwise afford the technology.

current funding opportunities, visit www.eda.gov/archives/2021/funding-opportunities.

USDA PROGRAMS

Another source of funding comes from the U.S. Department of Agriculture, which provides funding for fiber developments through several Telecom Programs (www.rd.usda.gov/programs-services/all-programs/telecom-programs).

- **ReConnect Loan and Grant Program** – offers loans and grants to cover costs associated with constructing, improving or acquiring assets needed to deliver broadband services in rural areas. Corporations, cooperatives and local government agencies are eligible to apply.
- **Community Connect Program** – gives financial assistance to developers aiming to facilitate “community-oriented connectivity” that leads to economic growth, better health care, quality public safety and more. The application window is currently closed, but interested parties can seek additional information from their local general field representative (www.rd.usda.gov/contact-us/telecom-gfri).
- **Distance Learning and Telemedicine Grants Program** – supports telecommunications initiatives that promote education and health care in rural communities. Although currently closed, the program may be an attractive option for fiber developers that can prove their networks will enhance education or health care access.

- **Rural Broadband Access Loan and Loan Guarantee** – provides financial support similar to the ReConnect program described above, but is currently closed. Grantees can put funds toward construction, improvements and acquisitions that enable high-speed broadband in rural areas.
- **Telecommunications Infrastructure Loans and Loan Guarantees** – an active funding source that supports expanding telephone services and the internet in rural communities. Awards can go toward new construction, maintenance, improvements or growth efforts in areas with fewer than 5,000 residents.

FCC UNIVERSAL SERVICE FUND

The FCC used the Universal Service Fund to subsidize long-distance carriers that “delivered telephone service to low-income households and high-cost areas.” Today, the FCC provides a similar type of financial support through four programs for broadband:

- **Universal Service Program for High-Cost Areas** enables eligible companies to recoup some costs of bringing modern communications networks to rural locations. To qualify for funding, networks must support voice and broadband service at speeds comparable to those available in urban areas.
- **Universal Service Program for Low-Income Consumers** gives discounts for telephone installations and monthly services to qualifying

subscribers. Carriers can obtain financial support to cover the costs associated with delivering discounted services. Those interested in receiving funding from this program must be designated as eligible telecommunications carriers (ETC) by the FCC or state commissions.

- **Rural Health Care Program** enables health care providers to upgrade their telecommunications and broadband services to provide better care to patients. Through the Telecommunications sub-program, health care providers can obtain funding to close the gap between urban and rural rates for telecommunication services. Although this program doesn’t directly fund fiber network developments, some financial support eventually flows to groups responsible for maintaining networks.
- **Schools and Libraries Program**, also known as E-Rate, supports internet access, telecom services, internal connections and related maintenance for schools that could not otherwise afford the technology. Like the Rural Health Care Program, E-Rate doesn’t directly fund fiber network developments, but it does subsidize costs for other entities to obtain high-speed broadband.

The programs summarized differ slightly in terms of how they enable broadband service delivery. Some actively seek new applicants, others are closed, and a few indirectly provide financial aid to fiber developers through intermediaries.

THE SOR ROLE

Securing government funding for fiber network development is often essential for small operators in rural areas, but this is only the first step in a long journey. Building a strategy for managing the life cycle of a network is equally important, and fundamental to this is documenting the web with a modern System of Record (SoR).

Rather than relying on free tools, spreadsheets and manual processes, fiber network developers now realize the value of investing in SoRs for the long-term success of their broadband business models. If a developer can't efficiently plan, construct and maintain its network, the value of the business is compromised, not to mention the quality of its service.

In a competitive, fast-moving market, an SoR strategy allows operators to view and understand their network assets and maintain the quality and visibility of their data as changes

happen, saving time and improving process efficiency.

A well-documented network can also increase customer satisfaction by offering faster response times, improved service level agreement (SLA) performance, knowledge preservation, and the ability to fast-track growth objectives.

To learn more about implementing an SoR and the financial and operational benefits it can bring to a business, please visit a previous IQGeo article: "A Robust System of Record Can Boost Telecom Profits" (www.bbcmag.com/technology/a-robust-system-of-record-can-boost-telecom-profits).

NEXT STEPS

Before beginning a new fiber development project, exploring possible funding opportunities makes sense for service providers. The U.S. government offers many ways to lower service providers' cost burdens, especially when

entering financially challenging markets. Don't hesitate to reach out to third-party experts who can enhance funding proposals and increase the likelihood of achieving long-term success.

It's also critical that service providers choose the SoRs they use to plan, construct and maintain their fiber networks. Funding is only the first step in the process of building and supporting a complex broadband network for the long-term benefit of businesses and customers within a community. ❖



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