Open Access Networks: A Policymakers Guide

As federal, state, and local governments invest in broadband infrastructure, ensuring a strong public return on investment is critical. High-speed internet access is an essential service for American homes, schools, and businesses making universal broadband access of critical importance. The challenge in building these networks has highlighted the value of a shared, open, and competitive infrastructure model, one that encourages investment while also enabling broad participation in delivering internet service to communities of all sizes.

Open access networks (OANs) offer a model to maximize the impact of these investments. By separating ownership of physical infrastructure from service delivery, OANs enable multiple internet service providers (ISPs) to compete over shared networks--expanding access, lowering costs, and improving service quality. However, not all "open access" models are equivalent. Policymakers should distinguish between true open access systems and those that fall short of core principles.

Defining Open Access.
At its core, an OAN separates ownership of physical backbone infrastructure from the service layer, allowing multiple ISPs to deliver services to consumers over a shared network. To ensure both the "openness" of a network and that public investments deliver intended outcomes, policymakers should prioritize the following elements:

- **Transparency and Neutrality.** The goal of an open access network is to incentivize participation and growth; hence, network operators should maintain clear, standardized terms that lower barriers to entry and encourage broad ISP participation.
- **Separation between Physical Network and Service Layer.** In an open access model, the owner of the network is different from the ISPs offering services to homes, schools, and businesses. This eliminates duplicative investments ideally to the benefit of ratepayers/taxpayers who would have to fund redundant construction and maintenance costs on multiple networks if ISPs were forced to build on their own.
- **Competition**. Decoupling the network operator and ISPs enables ISPs to compete on price, service quality, customer support, and product offerings without being constrained by infrastructure ownership.

Open Access for Connectivity and Economic Development.
When implemented effectively, OANs can advance multiple public policy goals:

- **Enhanced rural connectivity**. OANs are particularly critical for expanding connectivity in underserved areas where traditional deployment models often fall short. Larger providers may be unwilling or unable to justify the higher cost per mile in rural communities, leaving coverage gaps. OANs address this challenge by creating opportunities for smaller and regional ISPs to enter the market. By distributing infrastructure costs across multiple

providers, open access networks reduce financial risk and make rural deployment more economically viable. This in turn also supports broader universal service goals.

- **Driving economic development.** Well-designed OANs can drive economic growth by lowering prices and improving service. Increased competition helps attract new businesses and remote workers who rely on fast, reliable internet, while also enabling local entrepreneurship by reducing barriers to launching digital or home-based businesses. By strengthening connectivity, fostering competition, and keeping resources within the community, OANs create strong conditions for sustained economic development.

Respecting Taxpayers: Governance and Procurement Consideration.
Policy design, particularly around procurement and pricing, plays a decisive role in OAN success. The model typically relies on cost-based wholesale pricing, with charges typically structured around physical infrastructure inputs—such as fiber strands or route miles—rather than usage-based metrics. This approach aligns with open access principles to promote competition.

Clear and standardized pricing helps prevent preferential treatment and anti-competitive behavior by the network operator. By contrast, usage-based pricing models (e.g. per-megabit charges) can undermine the openness of the network and potentially limit competition and innovation.

A successful open access network—particularly one established through a public-private partnership—should be designed to leverage and optimize the strengths of each participant while keeping the public interest front and center. Public entities are often well-positioned to support, own, and maintain long-term broadband infrastructure assets in a manner that advances universal service and economic development. At the same time, private-sector providers are typically better equipped to market network capacity, manage customer relationships, provide technical support, invoice for services, and operate in competitive retail environments. Clearly defining these roles can help ensure that open access networks remain sustainable, competitive, and responsive to community needs while maximizing the value of public investment.

Conclusion.
Open access networks provide a scalable framework to align public investment with long-term policy objectives: expanding access, promoting competition, and ensuring affordability. When grounded in transparency, structural separation, and cost-based pricing, OANs can create a broadband ecosystem that delivers measurable public value. Policymakers should approach models that do not achieve these objectives with caution.

About Zayo.
For more than 17 years, Zayo has empowered some of the world's largest and most innovative companies to connect what's next for their business. The Zayo group of companies connects 400 global markets with future-ready networks that span over 18 million fiber miles and 145,000 route miles. Zayo's tailored connectivity solutions and managed services enable carriers, cloud providers, data centers, schools, and enterprises to deliver exceptional experiences, from core to cloud to edge. In 2022, Zayo partnered with Education Networks of America (ENA), a trusted E-Rate service provider since 1998, to offer cost-effective, education-focused connectivity solutions.