

Background

A Pennsylvania Local Development District, Southern Alleghenies Planning & Development Commission (SAP&DC), formed Alleghenies Broadband Inc., a non-profit organization, to develop broadband infrastructure that ISPs can lease to provide last mile broadband service. Alleghenies Broadband Inc., led by SAP&DC Director of Community and Economic Development Brandon Carson, leverages state and federal funding awards to make capital investments in middle-mile infrastructure, removing a majority of the risk associated with expanding service to rural areas. Alleghenies Broadband Inc. serves as a model for Local Development Districts to help ISPs expand service by making investments in infrastructure that ISPs cannot justify with a profitable business model.

The Southern Alleghenies Planning and Development Commission (SAP&DC) is a non-profit regional economic and community development organization serving Bedford, Blair, Cambria, Fulton, Huntingdon and Somerset Counties. It is an ARC-recognized Local Development District in Pennsylvania. SAP&DC is governed by a Board of Directors comprising County Commissioners from each member county and representatives from the private sector. SAP&DC's mission is to address human resource development, encourage the creation and retention of jobs, and to improve the quality of life for residents of the Alleghenies. SAP&DC leveraged state and federal funding to develop a strategic plan to map and develop broadband infrastructure across the region.

The Southern Alleghenies Planning and Development Commission announced (October 2020) the formation of a new nonprofit organization,¹ Alleghenies Broadband Incorporated, to support the development of broadband infrastructure to ensure residents and businesses have access to reliable, high-speed internet service. Alleghenies Broadband Inc. works to enhance infrastructure through public-private partnerships to deliver high-speed internet to rural areas that currently lack connectivity in the six-county region. The organization leverages revenue-sharing to finance new infrastructure projects.

Alleghenies Broadband Inc. will implement projects identified in the plan, which will be completed according to their ability to secure funding. Alleghenies Broadband Inc. partnered with SAP&DC to submit a federal grant application² requesting funds for a pilot project to begin offering broadband service across the region. The organization hopes it can continue to leverage publicly-financed capital investments and private revenue-sharing to develop additional middle-mile infrastructure projects.

Establish Strategic Leadership

The 2018 Alleghenies Ahead strategic plan identified broadband development as a regional priority for the six-county Southern Alleghenies Planning & Development Commission (SAP&DC) region. As a result of these findings SAP&DC formed the Regional Broadband Taskforce, which continues to meet monthly, to help find solutions that provide residents, businesses, hospitals, and schools with faster, more reliable internet service. The Taskforce included county commissioners and other relevant county officials, school and hospital administrators, and representatives of incumbent Internet Service Providers (ISP). Many of the Taskforce members now also serve on the board of Alleghenies Broadband Inc.

¹ <https://www.altoonamirror.com/news/local-news/2020/10/new-broadband-nonprofit-formed/>

² <https://sapdc.org/2021/01/14/statewide-broadband-expansion-effort-awarded-600k-grant/>

Efforts supporting the Broadband Taskforce quickly became a part of the everyday workflow at SAP&DC. Members devoted more resources to broadband than previous regional efforts. The Taskforce operates in four key areas: Outreach; Funding and Research; Technical Expertise; and Data and Mapping.

- The Outreach Committee educates elected officials and stakeholder groups on issues related to broadband development in the region.
- The Funding and Research Committee, which includes county planners, SAP&DC program managers, and school officials, identifies funding opportunities, provides grant-writing assistance, and researches best practices in local broadband.
- The Technical Expertise Committee includes telecommunications professionals from ISPs that provide technical information to inform connectivity solutions and mapping efforts.
- The Data and Mapping Committee maps the region's existing broadband assets and creates regional broadband access and demand analysis tools that assist the Task Force in making targeted investments in broadband development.

In 2020, SAP&DC received ARC funding to complete an eight-county assessment of broadband infrastructure in the region, which grew to include neighboring Fayette and Westmoreland counties. The resulting strategic plan, developed in cooperation with Blacksburg, VA-based broadband consulting firm Design Nine³, identified the potential role for an entity to champion broadband development projects, secure state and federal funding, develop projects, and potentially own infrastructure. This entity would partner with ISPs to provide broadband access and even provide last mile service to consumers when no partnering ISP was available.

As lead-member of the Broadband Taskforce, and a Local Development District eligible to apply for large pools of state and federal resources, SAP&DC served as the original vehicle to develop broadband infrastructure. After an ARC-funded project faced significant delays, due to a Pennsylvania Utilities Code regulation⁴ requiring governmental entities to provide right-of-refusal to incumbent ISPs to expand into a service area, the Taskforce identified the need for a separate organization from the LDD.

The delays experienced by SAP&DC resulted in the formation of Alleghenies Broadband Inc., a non-profit organization that was not subject to the same regulations as an LDD. Alleghenies Broadband Inc. (ABI) could still leverage state and federal funds, develop broadband infrastructure, and even provide internet service. The time and dedication shown by the Task Force and its member organizations made the integration of ABI into Task Force activities seamless. With Taskforce and member-organization staff working interchangeably with ABI, it provided the new organization with continuity and tacit knowledge earned through years of supporting the Regional Broadband Taskforce.

Evaluate the Current State of Broadband Development

In 2020, SAP&DC received⁵ \$50,000 in matching funds from an ARC POWER grant⁶ to complete an eight-county assessment of broadband infrastructure in the region, which included neighboring Fayette and

³ <https://www.designnine.com/>

⁴ <https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2004&sessInd=0&act=183>

⁵ <https://www.post-gazette.com/business/tech-news/2020/02/28/Westmoreland-county-southern-alleghenies-planning-broadband-access-bedford-internet/stories/202002270169>

⁶ <https://staging-sapdc.com/index.php/2020/11/07/sapdc-awarded-grant-funds-to-evaluate-and-promote-broadband-connectivity-in-the-region/>

Westmoreland counties. The Taskforce's Data and Mapping Committee worked with the Design Nine team to perform the study, which analyzed the following issue areas for the region:

- Level of service being provided and affordability;
- the needs of local businesses and the reliability of the current services being provided;
- Provide an inventory of broadband assets already in place, including vertical assets and community anchor institutions that can serve as fiber backbone;
- Assess community broadband requirements for bandwidth needs;
- Determine best technologies to meet the coal impacted community needs; and
- Provide cost estimates for different deployment strategies.

Informed by over 10,000 survey-responses, findings from the assessment resulted in a strategic plan for the region. Consumers wanted, and were willing to pay for, reliable broadband service at speeds above what was expected by SAP&DC staff. Survey-respondents were willing to pay between \$55-\$75 for reliable high-speed internet with 100 Mbps download speeds.

The disparity in service between urban and rural parts of the region were also worse than expected, based on data provided by the FCC. When compared with speed-test data, areas where DSL providers advertised 15 Mbps download speeds actually had 1 Mbps service. Large businesses were relying on less than 3 Mbps to operate. Survey-data identified a major gap between demand and supply in rural census blocks, the areas with the fewest providers, lowest available speeds, and highest prices relative to the level of internet service.

Navigate Legislative and Regulatory Barriers

As a local development district, SAP&DC faced significant regulatory barriers to deploying broadband infrastructure. These regulatory barriers created the need for Alleghenies Broadband Inc. to manage any broadband development projects. The Taskforce has additionally worked with legislators to secure funding for broadband development projects.

SAP&DC faced a major regulatory hurdle after it obtained a \$1.5 million EDA/ARC award to connect wired broadband to industrial parks in Somerset County. Pennsylvania Public Utilities Code 2004 Act 183⁷ mandates that government entities, including Local Development Districts, are required to provide incumbent ISPs with right of refusal in each service area before development. SAP&DC had to offer each ISP the opportunity to develop and offer 25/3 Mbps broadband service in each incumbent service area, delaying the project by months. In response, SAP&DC formed Alleghenies Broadband Incorporated (ABI), a 501 c3 non-profit organization that could play the same project-management role as SAP&DC, without the same regulatory barriers as a governmental entity.

The Taskforce has also worked to influence state broadband policy and the availability of financing. The Taskforce is working with PA Representative Schneder, who represents much of the region, to develop state legislation that would reduce regulations for government entities investing in broadband. The Pennsylvania Legislature is examining the creation of a new state agency, similar to the Pennsylvania Infrastructure and Investment Board, that would make targeted broadband investments with grants and loans. ABI and the Taskforce see a Pennvest type program as a "game-changer." Enhanced capacity by

⁷ <https://www.legis.state.pa.us/cfdocs/legis/li/uconsCheck.cfm?yr=2004&sessInd=0&act=183>

non-profits to make debt-laden investments into broadband infrastructure unlocks the potential for new projects that were un-financeable without government financing.

Organizations can identify relevant regulations according to their chosen connectivity solution and organizational goals. ABI is a broadband-infrastructure developer that partners with ISPs to offer service and would only offer service to consumers as a last resort. Although ABI does not plan on directly offering broadband service, it has registered a Competitive Access Application with the Pennsylvania Utilities Commission (CAPT). The CAPT permits ABI to directly provide broadband-service to consumers in the SAP&DC region and adjacent counties and could be scaled state-wide.

Models to Deploy Broadband Infrastructure

The Taskforce formed Alleghenies Broadband Inc. (ABI) in September 2020 as a vehicle to secure public investment, develop infrastructure, and partner with existing service providers, without the restrictions of a government entity in Pennsylvania. ABI earned the trust of ISPs representing potential partners by including ISPs in regional planning efforts since the inception of the Taskforce. ABI signaled to potential-partners they were not a competitive threat to provide broadband service, and simply an organization that financed and developed middle-mile networks for partnering ISPs to lease.

Alleghenies Broadband Incorporated is a 501 c3 non-profit organization that can apply for state and federal awards, build and lease middle-mile infrastructure to private ISPs that extend service to consumers, and even build out last mile broadband service when necessary. By leveraging public funding sources to make capital investments that can be used to extend middle-mile networks to rural areas, ABI enables ISPs to provide service in low-density areas with a profitable business model. State and federal financing programs often require an awarded non-profit or governmental entity to own the infrastructure or equipment financed by an award. Leveraging public capital to finance broadband development removes the risk associated with extending service to rural areas for private ISPs. Private ISPs can in turn lease that equipment to offer internet service to consumers at profitable margins.

SAP&DC and ABI forms public-private partnerships (p3) with local ISPs to offer exclusive rights to provide last mile broadband service to an area, in exchange for revenue-sharing to recover ABI's investment over the life of equipment. Forming a p3 with broadband-service providers represented the most logical solution for ABI. The greatest barrier to broadband development for both for-profit and non-profit cooperative ISPs is capital-access, which ABI can obtain at favorable rates over equipment life cycles. Wired fiber is leased to ISPs over twenty-year periods, and fixed wireless is leased over five-year periods. ABI captures the risk of expanding service to low-density areas in exchange for fees that finance any loans used to purchase equipment or infrastructure and expand middle-mile infrastructure.

Explore Funding Opportunities

As a non-profit subsidiary of a Local Development District, ABI can leverage a mix of state and federal funds to support capital investments at favorable rates. SAP&DC can apply for ARC funds that support ABI projects, and the Regional Taskforce is able to apply for a range of federal awards available to private and governmental entities. Additionally, ABI can lease its capital investments in middle-mile infrastructure to private partners in exchange for revenue-sharing.

In 2020, ABI received a \$250,000 ARC grant to install several fixed wireless broadband towers across Huntington and Bedford Counties. ABI is leasing existing vertical assets to install fixed wireless

transmitters. As of the interview, ABI is in early stages of negotiating agreements with the tower owners, purchasing equipment with ARC-funds, and negotiating a contract to deploy the equipment. An RFP solicited proposals from local incumbent ISPs to utilize the ABI transmitters to provide last mile broadband-service to the area. ABI will work with the partnering ISP to locate the equipment, market the service, and share revenue, and expects to offer service by October 2021. ABI chose a fixed wireless network solution for its project because of the low-density of the awarded area, although it hopes to finance fiber-to-the-premises projects in areas where the business model is feasible.

As grant-administrator for the ARC-award, ABI is seeking to partner with an ISP to provide service at download speeds up to 100 Mbps to 375 locations across three sites, at prices between \$55-\$75 a month, by October 2021. The RFP identified a level-of-service and price-point using data it received during the regional assessment. Expected rates for service-plans are expected to be comparable with local urban rates. ABI is seeking to recover the funds it used to match the ARC grant over a 5-10 year period through a revenue-sharing agreement. ABI's ultimate responsibility is to secure funding, develop infrastructure, and ensure the private partner performs to the level-of-service specified in the award.

Best Practices

Engage ISPs early and often. SAP&DC formed a successful partnership with several local ISPs by including them in the initial formation of the task force. This provided a key benefit of having technical partners able to assess connectivity solutions and provide data to support broadband mapping efforts. When communities plan without ISPs, ISPs view communities as a competitor and are more likely to undertake legal action. Clearly state your mission to ISPs and help them understand your goal of increased broadband development, not to compete with them as a service-provider. Let ISPs know your mission is to make capital investments that enable them to extend service to rural communities.

Understand how regulations impact each partner. SAP&DC faced a significant delay to a broadband development project because of Pennsylvania statutes governing public organizations. By forming a non-profit organization exempt from these regulations to deploy broadband, SAP&DC avoided these statutes and can leverage federal funds to develop broadband infrastructure leased by private ISPs, who are un-eligible to apply for some government funding opportunities. State regulations that limit one partner might provide an opportunity for another or new partner to contribute to any efforts.

Integrate broadband development into your organizational workflows. SAP&DC prioritized supporting the Regional Broadband Taskforce at a level that exceeded previous regional efforts. Broadband development soon became a part of day-to-day workflows at SAP&DC and other partner organizations. This made the transition of staff and Taskforce board-members to a dedicated broadband development organization, Alleghenies Broadband Inc., seamless. The Regional Broadband Taskforce developed the role of regional broadband champion that Alleghenies Broadband Inc. eventually filled. The transfer of staff and board-members from the Regional Broadband Taskforce to Alleghenies Broadband Inc., ensured that tacit knowledge and institutional understanding obtained while at one organization transferred to the other.