Southwestern Pennsylvania

Connected

Equitable Broadband Access

CONNECTIVITY ROADMAP
EXECUTIVE SUMMARY

The Southwestern Pennsylvania Commission (SPC), in collaboration with Allies for Children, Metro21 and Traffic21 at Carnegie Mellon University, and a diverse, regional coalition of stakeholders, recognized the need for a regional Connectivity Roadmap to identify and guide the deployment of high-speed connectivity programs and projects throughout the southwestern Pennsylvania region.

Currently, many areas within the region lack adequate high-speed internet access and equipment that are essential for residents to better connect to jobs, education, health care, and to attract new business. This regional Connectivity Roadmap provides a guide for building a more comprehensive and equitable broadband network that will help people connect to opportunity.

APRIL 2022

SPC
SOUTHWESTERN PENNSYLVANIA COMMISSION

ALLIES
FOR CHILDREN

Carnegie
Mellon
University

REGIONAL GOALS

The Regional Vision includes comprehensive goals for high-speed and equitable connectivity across the region. Meeting the 100/20 Mbps speed threshold will require extensive investment over time.

- Establish Network Redundancy

- Reframe Internet as a Public Necessity

- Expand Broadband in the Public Domain

- Invest in Expanded Infrastructure and Establish a Fiber Backbone

- Support Industry Sectors (i.e., Transportation and Agriculture)

- Prioritize Digital Equity for all Existing and Potential Users

- Provide Assistance to Achieve Affordable Rates

- Foster Digital Inclusion and Access

- Expand Programs for Digital Literacy and Education

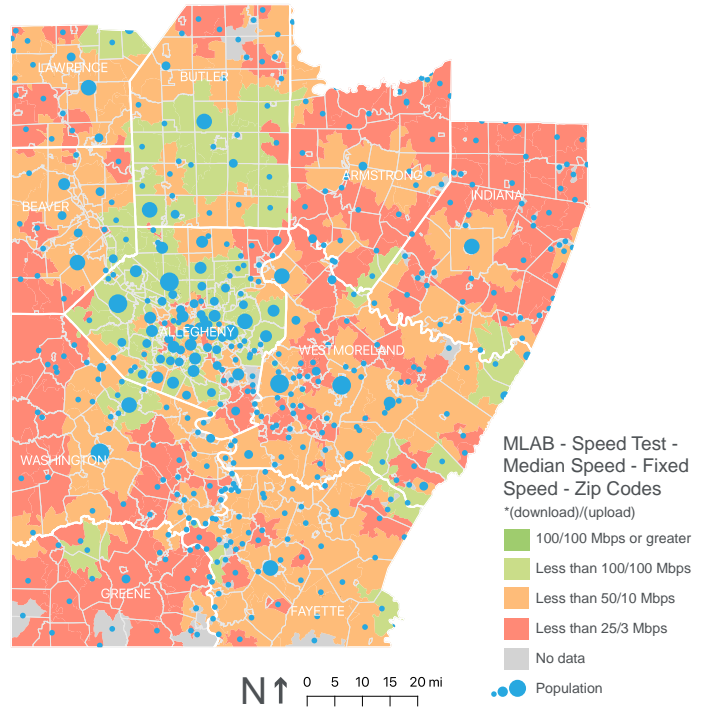- Facilitate and Lead Regional Partnerships

- Advance Cross-Jurisdictional Policies and Legislative Change

- Integrate Broadband Expansion into Economic Development Policies & Strategies

HOW MUCH OF OUR REGION HAS ACCESS TO BROADBAND?

The term broadband is used to describe a range of technologies that provide high-speed internet access. Broadband commonly refers to high-speed internet access that is faster than traditional dial-up access. Unlike traditional dial-up, which requires a telephone line to connect and is not always connected, broadband access is considered "always-on," making it much more efficient to use.

MLAB - Speed Test - Median Speed - Fixed Speed - Zip Codes
*(download)/(upload)

- 100/100 Mbps or greater
- Less than 100/100 Mbps
- Less than 50/10 Mbps
- Less than 25/3 Mbps
- No data
- Population

N ↑   0 5 10 15 20 mi

SWPA Connectivity Broadband Speed Map
Source: Open source data gathered by Measurement Lab, 2021

AVAILABLE RESOURCE

This data, along with more information about internet access and speed per county and per census block, is available online. Learn more through the interactive dashboards at:
www.spcregion.org/connected

The 2021 Infrastructure Investment and Jobs Act (IIJA) defines broadband speed at a 100/20 Mbps threshold that **PROJECTS MUST MEET** to qualify for government funding.

ACCURATE BROADBAND DATA KEY TO FUNDING

According to FCC Form 477 data, which internet service providers are required to submit to the FCC twice per year, nearly the entire SPC region is served by high-speed internet as it is currently defined (25 Mbps download/3 Mbps upload). This data makes southwestern Pennsylvania appear to be very well served with high-speed internet available everywhere.

However, most of the region falls short of the proposed 100/20 threshold for defining broadband (100 Mbps download/20 Mbps upload) that this Roadmap recommends and which is increasingly reflected in national policies.

WORKING TOGETHER

A Regional Path has been identified that places
SPC in partnership with the 10 counties and City of Pittsburgh
in ideal positions to apply for funding immediately.

PRIORITY ACTIONS
REGIONAL EFFORTS*

1 Advance the SPC nonprofit and county governance structure to best support regional needs.

2 Develop a regional marketing campaign to promote the benefits of broadband and highlight existing broadband affordability programs.

3 Select a regional pilot infrastructure project and identify partners to develop a grant application for broadband deployment.

4 Prepare guidance in partnership with Carnegie Mellon University and Allies for Children for partners to utilize the Connectivity Opportunity Areas and available shared resources in seeking grant funding and developing best practices. Guidance should include the identification of potential partners, likely incentives, and actions they can support related to the identified goals and strategies.

5 Continue collaboration with the 10 counties and the City of Pittsburgh to ensure the Connectivity Roadmap is utilized and updated while technology, beneficial programs, and additional funding mechanisms evolve.

6 Share the Connectivity Roadmap with the PA Broadband Development Authority and relevant state agencies to support the shaping of state-level broadband processes.

7 Collect further broadband location data to ensure unserved locations in the region are properly identified in preparation for the FCC's challenge process. This will position the Commonwealth and region to secure additional funding via the IIJA's Broadband Equity, Access, and Deployment Program.

*Priority Actions not listed or numbered in order of importance.

PRIORITY ACTIONS
COUNTY AND MUNICIPAL LEADERS*

1 — Participate in the governance structure that is selected in accordance with this Roadmap to ensure that counties jointly benefit from regional investments and efficiently share resources across boundaries.

2 — Advocate to local state representatives to ensure that local needs are understood and addressed, including accurate data representation and policy changes from zoning and land use to expanded regulations over service and cost inequality.

3 — Develop streamlined permit processes for installation and operation of broadband infrastructure.

4 — Utilize the Broadband Connectivity Indices available at **www.spcregion.org/connected** to conduct a self-assessment of current conditions within the county or municipality and support locally-led grant applications and planning efforts.

5 — Select a pilot infrastructure project and identify partners to develop a grant application for broadband deployment.

PRIORITY ACTIONS
PRIVATE SECTOR AND NONPROFIT PARTNERS*

1 — Identify edge of network unserved areas that are within reach of existing broadband facilities and meet with the ISPs to address constraints. Prioritize near-term expansion opportunities around existing facilities.

2 — Identify the goals and strategies that align with your organization's mission and connect with SPC and/or county leadership to seek or become a partner in implementation.

3 — Set organization-level goals that commit to your role in implementing connectivity for all. Some examples may be: commit to speed and service thresholds (providers), commit to funding allocations for affordable subsidies (nonprofits), and create digital literacy programs (institutions).

4 — Use the Connectivity Roadmap's Engagement Tool kit available at **www.spcregion.org/connected** to promote improved broadband and spread awareness about existing resources as well as the goals and strategies for connectivity.

*Priority Actions not listed or numbered in order of importance.

VALUE OF BROADBAND

Broadband is the gateway that allows communities and individuals across the region to access information that is essential to everyday life. Without broadband, it is difficult to participate in society, creating negative impacts on individuals and communities. Rather than viewing high-speed internet as a luxury, it is becoming increasingly clear that broadband needs to be viewed as a necessity, like electricity or water.

Public Safety
First responders network

Economic Development
Business growth and expansion, digital literacy skills, job-training, career development

Education
Homework that requires access to the internet, enhance traditional learning at all levels

Government
E-government services, communication with constituents

Healthcare
Electronic medical records, wireless medical devices, patient information data

Energy
Smart Grid technology, energy monitoring

Transportation
Alleviate congestion, enhance road safety

While many residents did state they have home internet access of some kind...

12% OF THE POPULATION
rely on their cellular data plan for their main home internet, and **2% HAVE NO HOME INTERNET ACCESS AT ALL.**

Source: SPC Public Survey - Fall 2021

PUBLIC ENGAGEMENT

The **CONNECTIVITY ROADMAP** was informed by a public survey, county interviews, ISP interviews, workshops with regional providers, nonprofits, local and state government leaders, industry experts, community organizations and through best practices.

3,445+ Survey Respondents

5 Workshops

17 Community Conversations

25+ Interviews

The southwestern Pennsylvania region will collaborate to invest efficiently and equitably in high-speed internet networks and programs that are **AVAILABLE, ACCESSIBLE, and AFFORDABLE** to all to ensure our region is connected and thriving socially and economically.

AN IMPLEMENTATION GUIDE

Rapid changes to broadband technology and policy create an evolving landscape of opportunities and partners for achieving all of the goals for a connected future. Rather than identify a comprehensive set of future projects that may quickly become obsolete in this changing landscape, the Connectivity Roadmap provides several tools to guide the selection of projects as priorities shift.

Fourteen initial projects have been prepared to illustrate priority infrastructure improvements that meet the needs of each county, by starting first with areas that are unserved and can pursue funding immediately.

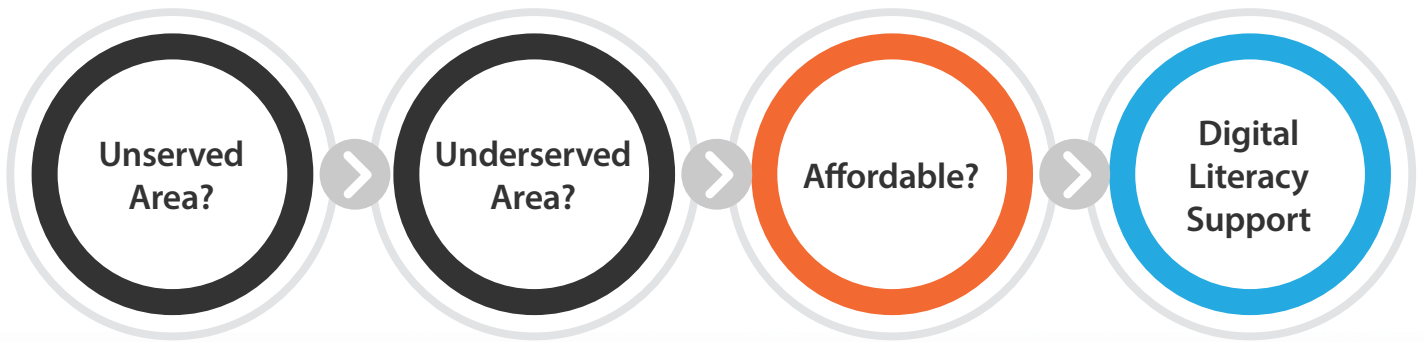The Connectivity Roadmap provides several tools to guide the selection of projects as priorities shift:

The **Project Identification Decision Tree** guides decision-making through the steps needed to meet a given need, according to the existing conditions and type of need.

The **Measures of Effectiveness** rubric rates and weights projects according to an extensive set of metrics that includes technical and equitable qualifications.

BROADBAND INFRASTRUCTURE

EQUITY/ AFFORDABILITY

DIGITAL LITERACY

(Unserved Area?) > (Underserved Area?) > (Affordable?) > (Digital Literacy Support)

As we progress further into this **DIGITAL ERA**, we have an obligation to make sure that **NO ONE IS LEFT BEHIND**.

LEARN MORE
Visit **www.spcregion.org/connected**
to read the Connectivity Roadmap Report and learn how to apply this plan to your area.

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