Virginia Department of Housing & Community Development (DHCD)

Regional Digital Opportunity Plan
for South Central and Southside Virginia

Prepared by:

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Table of Contents

Executive Summary

Southeast Rural Community Assistance Project, Inc. (SERCAP), in partnership with STEPS, Inc., was awarded grant funds from the Virginia Department of Housing & Community Development's (DHCD) Office of Broadband to complete planning work and put together a comprehensive Regional Digital Opportunity Plan for South Central and Southside Virginia.

In order to complete this Regional Digital Opportunity Plan (RDOP), SERCAP and STEPS, Inc. worked together, to: conduct a comprehensive Access to Broadband and Digital Opportunity Needs Assessment in the designated geographic region, conducted research into existing County and local Broadband Plans, and put together and asset inventory of existing/current assets in the region.

Specifically, SERCAP and STEPS, Inc.'s designated region for this Regional Digital Opportunity Plan includes, the following 17 counties and three (3) cities in Virginia:

- Amelia County
- Amherst County
- Appomattox County
- Bedford County
- Buckingham County
- Campbell County
- Charlotte County
- Cumberland County
- Fluvanna County
- Halifax County
- Henry County
- Lunenburg County
- Mecklenburg County
- Nelson County
- Nottoway County
- Pittsylvania County
- Prince Edward County
- Danville City
- Lynchburg City
- Martinsville City

The overall purpose of this Regional Digital Opportunity Plan is to identify gaps in Broadband Service (both lack of infrastructure, and barriers due to cost, etc.) and to identify potential, fundable projects in the region that will help to eliminate the digital divide.

The insights provided by community member participants and the summary of existing research helped to guide SERCAP and STEPS, Inc. in identifying significant barriers, and will help others to understand the critical needs in the designated geographic region.

Regional Digital Opportunity Plan for South Central and Southside Virginia
Introduction & Vision for Digital Opportunity

Introduction

As stated previously, Southeast Rural Community Assistance Project, Inc. (SERCAP), in partnership with STEPS, Inc., was awarded grant funds from the Virginia Department of Housing & Community Development's (DHCD) Office of Broadband to complete planning work and put together a comprehensive Regional Digital Opportunity Plan for South Central and Southside Virginia.

The overall purpose of this Regional Digital Opportunity Plan is to identify gaps in Broadband Service (both lack of infrastructure, and barriers due to cost, etc.) and to identify potential, fundable projects in the region that will help to eliminate the digital divide.

In order to put together this Regional Digital Opportunity Plan for South Central and Southside Virginia, SERCAP and STEPS, Inc. conducted an Access to Broadband and Digital Opportunity Community Needs Assessment comprised of several activities, including:

- Conducting 12 (10 in-person and 2 virtual) Community Focus Groups
- Researching existing Broadband Projects and local plans
- Reviewing Survey Data for Region (from the Commonwealth-wide Digital Opportunity Survey)
- Conducting Asset Inventory for Region
- Reviewing and analyzing all data that was collected

Through the Access to Broadband and Digital Opportunity Community Needs Assessment process, SERCAP and STEPS, Inc. identified four (4) key project areas that, if addressed, will help to bring wide-spread broadband access to individuals and families throughout South Central and Southside Virginia, and will help to close the Digital Divide.

These four (4) key project areas, are:

- Infrastructure
- Affordability
- Public Connectivity
- Training and Resources

Furthermore, this plan explores/discusses the possibility of establishing internet service as a utility alongside electric and water/wastewater, as an additional option in providing both affordable and reliable access to all residents of the region, and ultimately the Commonwealth of Virginia.

Vision for Digital Opportunity

According to the Digital Equity Act of 2021, the definition of Digital Equity is when, "all individuals and communities have the information technology capacity needed for full participation in our society, democracy, and economy," (The Digital Equity Act of 2021 One-Pager; https://drive.google.com/file/d/1GB2dQDACfe3K9SfCbFcBvl-pwBoCmf23/view).

In the Commonwealth of Virginia, Digital Opportunity is defined as, "ensuring that households and businesses have access to reliable, affordable inernet and digital resources, as well as the tools and skills necessary to use them," (Virginia Department of Housing & Community Development's Office of Broadband).

SERCAP's and STEP, Inc.'s vision for Digital Opportunity for South Central and Southside Virginia is to make affordable access to broadband/high-speed internet, tools, and resources available to all residents, while preserving personal privacy/online security and individual choice as key values and an essential component of this Digital Opportunity Plan for the region and the Commonwealth of Virginia at-large.

Providing reliable and affordable internet access to all residents of the area is critical to ensuring that everyone has access to public services and resources (such as Medicare Enrollment, Social Service applications, etc.), education including online classes, job search and workforce development tools, small business resources, and more. However, in addition to providing adequate and affordable internet access, it is also crucial that online safety and security, that supports personal privacy and choice, be included as part of the plan.

Throughout the process of conducting the in-person and online community focus groups, several participants expressed concern about privacy online, especially in regards to financial transactions. These participants recommended that providing training classes/workshops on internet safety and security, privacy, and scam prevention would be a valuable asset for their communities.

Public Connectivity emerged as one of the top needs for the region during the Access to Broadband and Digital Opportunity Community Needs Assessment process. Establishing and maintaining public connectivity and free access for community members may help to ensure that anyone needing internet to access online services, can access the internet when needed via public access, but is able to maintain an internet free home, if that is their choice.

Over the past several years, Virginia has been dedicated to building out its Broadband Infrastructure in order to make high-speed internet service more accessible across the Commonwealth. However, despite these efforts, there is still a long way to go to achieve this goal. While most cities, towns, and population centers have sufficient access to high-speed internet, the rural areas are still significantly lacking. For the rural areas that do have access, cost of service is often high, especially in light of how spotty or unreliable the service can be.

Barriers

According to the community members that SERCAP and STEPS, Inc. spoke with over the past two (2) months, the following present the primary barriers to access in the Commonwealth of Virginia:

1. Lack of Broadband Infrastructure in Rural Areas
2. Cost
3. Lack of Competition between Internet Service Providers (ISPs),
   caused by the Proprietary Nature of the laid Fiber/Cable

Lack of Broadband Infrastructure in Rural Areas

Despite the Commonwealth's efforts to develop its broadband infrastructure, the lack of availability in rural communities is a real concern/problem. This impacts the residents of these rural areas in multiple ways, including: inability to work from home, completing school assignments, accessing public services such as Medicare Enrollment, filing for unemployment insurance, and more.

It also discourages future/potential entrepreneurs from starting business, especially online business, as it limits their ability to set-up a strong online presence that will allow them to collaborate with others, market their business online. An additional negative impact/outcome for these rural communities, is that the lack of access to reliable, high-speed internet discourages young people from staying in these communities. Instead, they move to larger suburban and metropolitan areas with more opportunities.

Cost

According to the community members that attended the Community Focus Group Sessions, the monthly service for internet access in the region ranges anywhere from $49.00 per month to over $130.00 per month. Many community members found the range of internet service rates and the lack of consistency to be frustrating. Especially, when you may pay over $100.00 per month for poor service that goes out frequently and is not reliable.

In some areas, the only option for service requires you to purchase per Gigabyte of data, forcing individuals to either limit their use, or risk a very high internet bill. This is especially an issue for low-to-

moderate income (LMI) individuals and families who may be able to manage the cost for one or two Gigabytes of data, but would find themselves financially strained if they went over and had to pay for four or five Gigabytes of data.

There are some Subsidy Programs available in the Region, and some of the participants in the Community Focus Groups did take advantage of these Subsidy Programs. However, these programs vary greatly and are not accessible to all LMI residents. More availability and consistency in eligibility requirements for Subsidy Program may make them more accessible to LMI residents across the Region, and across the Commonwealth of Virginia.

In addition to the cost internet service presenting a barrier to LMI individuals and families, cost can also present a large barrier for the ISPs themselves. The cost of laying fiber is very expensive. When the cost is more than what the customer base/potential customer base can support (too few customers to make it worth it), then ISPs may choose not to lay fiber in rural/remote areas. This is frustrating for the rural residents who are not confident that they will ever have access, due to this cost/ROI barrier.

Lack of Competition between ISPs

The lack of competition between the Internet Service Providers (ISPs) may be the biggest barrier to access, as it impacts both the cost and the lack of availability in rural communities. Similarly, to Cable before it, the proprietary nature of the laid Fiber/Cable (specifically due to the astronomical costs of laying fiber), essentially prevents there from being sufficient competition between ISPs.

However, it is highly unlikely that this problem will be solved, unless internet is transitioned to and treated like a public utility. As of now, the ISP/company that lays the fiber (even when utilizing a portion of public funds) owns that fiber/line, and will not share it with other ISPs. This creates a monopoly on the service in a given area, enabling ISPs to charge pretty much whatever they want, even if its out of reach for many low-to-moderate income (LMI) households.

Furthermore, it gives ISPs little incentive to provide service in rural communities with low populations. A couple dozen occupied households is not enough profit for the ISPs to take these areas seriously.

Other barriers, include:

1. Time – community members are frustrated with the length of time these projects (specifically the VATI projects) are taking to complete.
2. Lack of Trained Workers to Lay Fiber
3. Lack of Cell Towers – even allowing for internet access via G5/Mobile Data options, rather than broadband.

There are however, two potential saving graces coming in the near future in the form of satellite internet providers. Both Starlink and Amazon's Project Kuiper are launching satellites that will provide high-speed internet service, even in the most rural of areas.

Starlink has already launched some of their satellites, and provides service to some areas of Virginia. It also looks like a good portion of the Commonwealth is due for service availability sometime in 2023.

While access to quality high-speed internet will come with these satellite service providers, the costs (especially the upfront costs) associated with the service could be very prohibitive for LMI households. Currently, to install Starlink in Buckingham County, VA costs $599.00 upfront for the hardware, and $120.00 per month for service, (https://www.starlink.com/orders/?processorToken=9ed27218-3b3b-4685-b26c-eb3dd3391dcf).

Click here to learn more about Starlink: https://www.starlink.com/map

Click here to learn more about Amazon's Project Kuiper, which is due to launch in 2024: https://www.reuters.com/lifestyle/science/amazon-targets-2024-launch-first-kuiper-internet-satellites-2023-03-14/

Assets

Even though the Commonwealth is still lacking in broadband infrastructure in the rural areas, there are a fair number of broadband and digital opportunity assets available throughout the South Central and Southside Virginia region.

These current Assets, include:

- Current Internet Service Providers (ISPs):

  - Xfinity (Comcast)
  - Century Link/Brightside
  - Shentel
  - Verizon
  - Hughes-net
  - Starlink
  - T-Mobile
  - DSL
  - Kinex
  - Firefly

- Current VATI (Infrastructure) Grant Projects:

  - West Piedmont PDC – Planning Grant
  - Thomas Jefferson Planning District Commission Super Regional VATI Project
  - Southside PDC
  - West Piedmont PDC and River Street Networks
  - Commonwealth Regional Council and Kinex
  - Bedford County and Shentel
  - Campbell County and Shentel

- Computer/Technology Training Options/Classes

- Other Assets

  - Hotspot Check-out Programs – Several Public Libraries provide Hotspots that residents can check-out

See Asset Inventory Spreadsheet for complete list of existing assets.

Regional Digital Opportunity Plan for South Central and Southside Virginia
Collaboration and Stakeholder Engagement

In order to develop this Regional Digital Opportunity Plan, SERCAP and STEPS, Inc. conducted a comprehensive Access to Broadband and Digital Opportunity Community Needs Assessment. To complete the Needs Assessment, both agencies engaged in several activities, including: conducting in-person focus groups, conducting online focus groups, distributing surveys, and reviewing and analyzing previously established Broadband Initiatives in the region.

The overall components and methodology of the Access to Broadband and Digital Opportunity Community Needs Assessment are detailed below.

Overall Goal: To complete an Access to Broadband and Digital Opportunity Community Needs Assessment that identified the biggest gaps and biggest needs in the designated region, when it comes to access to broadband and digital opportunity, that will inform the final Regional Digital Opportunity Plan.

Components:

- In-Person Community Focus Groups – conducted throughout the designated region, including:

    - *Chatham, VA – Pittsylvania County Main Library*
    - *Scottsville, VA – Scottsville Library*
    - *Farmville, VA – STEPS, Inc.'s Headquarters*
    - *Keysville, VA – Heartland Industrial Park*
    - *Lynchburg, VA – Lynchburg Parks & Recreation Center*
    - *Bedford, VA – Bedford County Public Library*
    - *Appomattox, VA – Appomattox Public Library*
    - *Amherst, VA – Amherst Branch of Amherst County Public Library*
    - *Rustburg, VA – Campbell County Public Library*
    - *Martinsville, VA – Blue Ridge Library*

- Online Community Focus Group – conducted via Zoom

    - *South Central VA Nonprofit Network*
    - *General Public Focus Group*

- Access to Broadband and Digital Opportunity Survey – developed by Guidehouse and SIR under the direction of DHCD. SERCAP and STEPS, Inc. were provided access to the Survey Results for their designated region.

- Previously Established Broadband Initiatives and Digital Opportunity Plans in the Region.

SERCAP and STEPS, Inc. launched its Access to Broadband and Digital Opportunity Community Needs Assessment process on June 6, 2023, and continued through July 20, 2023. To conduct the Assessment, SERCAP and STEPS, Inc.:

- Conducted 10 In-Person Focus Groups
- Conducted two (2) Online Focus Groups
- Distributed both the Online Link and Paper copies of the Survey
- Reviewed and Analyzed Previously Established Broadband Initiatives and Digital Opportunity Plans in the Region
- Determined the Biggest Gaps and Needs for Broadband and Digital Opportunity in the Region
- Developed Summary Report

Overall, 57 community members and community stakeholders participated in at-least one of the 12 Community Focus Group/Community Listening Session that SERCAP and STEPS, Inc. conducted. These participants provided great insight into the current state of internet service in their community, and provided multiple creative ideas on how to better provide service and support for residents.

The low attendance did present somewhat of a challenge, as many voices were not heard. However, those who did attend engaged in lively and informative discussions that provided SERCAP and STEPS, Inc. with a lot of information and ideas for future projects/implementation.

Community Stakeholders

To complete this Regional Digital Opportunity Plan and conduct the Access to Broadband and Digital Opportunity Needs Assessment, SERCAP and STEPS, Inc. engaged with several Community Stakeholders, especially involving them in the planning and execution of the Focus Groups.

Community Stakeholders for this effort, included:

- Southside Planning District Commission (Southside PDC)
- Thomas Jefferson Planning District Commission (TJPDC)
- South Central Virginia Nonprofit Network (SCVNN)
- Bedford County Public Libraries
- Three into One Community Project
- Lynchburg Alumnae Chapter of Delta Sigma Theta Sorority, Inc.

The input and support of these community partners enabled SERCAP to reach more community leaders and community members, broadening the input provided during the Focus Group sessions. The Planning District Commissions (PDCs) in particular shared their experience with administering the VATI Grant Projects, and shared many of the challenges associated with laying fiber and extending broadband access into rural communities. They also provided valuable insight into working with the individual Internet Service Providers (ISPs).

Regional Digital Opportunity Plan for South Central and Southside Virginia Implementation

After collecting all of this data through multiple community focus groups, surveys, and individual research into what is currently available in the designated geographic region, SERCAP and STEPS, Inc. have determined that the following four (4) projects/project areas are the biggest needs in South Central and Southside Virginia, and the most needed for implementation to secure access to broadband: Infrastructure, Affordability, Public Connectivity, and Training/Resources.

Infrastructure

While Virginia has invested significant time and resources into expanding Broadband throughout the Commonwealth, the reality is that the infrastructure is still lacking in several particularly rural areas. This lack of infrastructure is due in high-part to the following:

1. Cost
2. ROI – Some rural areas do not have enough households (potential customers) to make the cost of laying the fiber worth it to the ISPs.
3. Time
4. Lack of Skilled Workers

This continued lack of infrastructure and availability in many rural areas is an indication that investment in infrastructure is still needed. Especially with the release of the BEAD funding, several counties in the South Central and Southside region of Virginia, are prime to secure funds to expand fiber in to the rural areas. Bedford and Prince Edward counties, especially, are in need of stronger broadband/internet infrastructure in order to adequately serve all of their residents.

Proposed infrastructure projects:

- **Fiber Installation** – continue laying Fiber in the areas/communities where it makes sense, utilizing VATI and BEAD funding (see the attached Asset Inventory to see which VATI Grant project are currently underway in the region)
- **Cell Towers** – Install more Cell Towers in better locations (higher ground, mountain tops, etc.) to make Mobile Access available for individuals who rely on their Cell Phone/Mobile Enabled Tablet to access at-least some basic services.
- **Establish Safety/Security Protocols for Public Wi-Fi** – If there is a way to make Public Wi-Fi/ Internet more secure, then it would be extremely beneficial to community members if these provisions/protocols could be established.

Affordability

Currently, costs/fees for internet access in the region are all over the map. Since Internet Service Providers (ISPs) have little or no competition, they set prices to benefit their bottom line, without really taking affordability for the individual into account. However, currently Internet Service is still a consumer product, and price is determined by the free market.

Proposed affordability programs/services:

- **Subsidy Programs** – based on income eligibility. This was maybe the most suggested program throughout all the Community Focus Groups.
- **Expand Hot-spot Checkout Programs to All Libraries in Region** – several libraries already check-out Hot-spots, so residents can access the internet at home for free. However, these programs are only impactful if the Hot-spots work at one's house/apartment. They need the infrastructure to be in place in order to benefit the community.

Public Connectivity

Given the high cost of laying fiber in extremely remote areas with few potential customers (occupied household/small businesses), increasing availability of free public connectivity presents a creative opportunity/alternate solution for providing affordable access in rural communities.

Proposed Expansion of Public Connectivy, includes:

- **Increase Free Public Wi-Fi** – for use in Public Community Spaces, such as:
    - Public Parks
    - Farmers Markets
    - Downtown Squares/Plazas
    - Athletic Fields – parents can work/take care of some business while their kids are at sports practice, etc.
    - Etc.
- **Install Solar- Powered Outdoor Umbrella Benches/Picnic Tables with Charging Stations/USB Ports in Public Community Spaces** – Some libraries already have something like this. It could be replicated and spread throughout the Community in public spaces (parks, farmer's markets, etc.). This will allow community members to charge a phone, tablet, or laptop while accessing free public Wi-Fi.
- **Increase Computer/Internet Stations in Community** – most Libraries are equipped with Computer/Internet Stations, but this could be expanded to Community Centers, Workforce Development Centers (for job search, training purposes, etc.), Departments of Social Services (to complete applications for DSS services), etc.

Training/Resources

Even in 2023, there are still individuals who are not fully proficient, or even comfortable, utilizing some Technology and the internet to conduct day to day tasks and business. In order to help individuals in the region, especially Senior Citizens, to increase their skills and become more Tech Savvy, additional training classes and resources should be established for the community.

Proposed Training and Resources, include:

- **Establish Public Help Desk/IT Support for the Community/General Public** – this would be executed/administered through the Libraries, Community Colleges, etc.

- **Training Classes, especially for Seniors** – Classes may be held at:

  o Libraries
  o Community Colleges
  o Churches – a few individuals suggested providing these classes in conjunction with Wednesday Night Church/Bible Study or after Church on Sundays. This would be beneficial to Seniors that do not like to leave their house frequently.
  o Senior Centers
  o Community Centers

- **Application/Enrollment Form Clinics** – Especially since many Senior Citizens can find navigating the internet to be overwhelming, establishing one-to-two times per month when these Clinics are available for individuals to show up and get assistance in completing online forms, especially Open Enrollment Forms for Medicare (during the Open Enrollment period), would be highly beneficial to both the individual and the community at-large.

- **Online Safety and Security Training** – this would be available to the general public, and would equip regular people with the knowledge, skills, tools, and resources to protect their privacy online and avoid scammers, etc. who may try to steal their identity and/or scam money from them.

- **Affordable Device/Hardware Programs** – making refurbished devices such as lap-top computers and tablets available at a low price for LMI individuals will further support Digital Opportunity in the Region.

Additional Considerations for Implementation

Protecting Privacy and Personal Choice

While the establishment of adequate and affordable broadband/internet service throughout the Commonwealth of Virginia, is critical for community development, economic development, and small business growth, it is also important that these plans take privacy and personal choice into consideration.

Protecting personal privacy and ensuring that users have sufficient tools for online security should be of paramount concern when engaging in any Access to Broadband and Digital Opportunity project. Additionally, whether or not one connects their property to the internet should remain a personal choice. The Commonwealth's focus on providing adequate and affordable access to broadband and digital opportunity should include acknowledgment of and protections for personal choice.

Individual, personal choice may come in multiple forms, including:

- **Choice of Internet Service/Internet Service Provider (ISP)** – by ensuring that there are multiple options for internet service (healthy competition) in any given community, to help support all service needs and budgets.
- **Choice of Internet/Wi-Fi Enabled Devices** – ensuring individuals maintain their autonomy in which devices they choose to connect to the Internet. Nobody should be required to connect their Refrigerator (or any household appliance) to the internet, just to make it work.
- **Choice to Remain Internet Free** – not everyone will want to connect their home to the internet.

Establishment of Internet Service as Utility or Co-op

One solution, to both the Infrastructure and the Affordability issues presented in making internet service ubiquitous, that came up during multiple Community Focus Group discussion, was making Internet Service a Utility alongside electricity and water/wastewater. Several community members suggested that this would tie internet service to existing utility regulations regarding rates/costs, availability of service, etc. While this may be an initially expensive endeavor, the long-term benefits/impact may well be worth the upfront cost.

Example of Working Co-op – here in Virginia

Currently, in several counties in Central Virginia, including: Amherst, Appomattox, Nelson, Albemarle, Greene, Madison, Buckingham, Fluvanna, Louisa, Goochland, Powhatan, and Cumberland; Firefly Fiber Broadband, a subsidiary of Central Virginia Electric Cooperative (CVEC), has partnered with AEP, Dominion Energy, and Rappahannock Electric Cooperative to provide fiber-to-the-home (FTTH) internet that is fast, affordable, and reliable. This is made possible through their RISE Project, which is part of the Thomas Jefferson PDCs VATI Grant project. Visit their website to learn more: https://www.fireflyva.com/

Regional Digital Opportunity Plan for South Central and Southside Virginia

Conclusion

As stated previously, after conducting several (12) community focus groups, engaging in one-on-one conversations with Community Stakeholders, and reviewing the survey results for the region, SERCAP and STEPS, Inc. have identified the following as the top four (4) priority areas in providing access to broadband and digital opportunity to the region:

- Infrastructure
- Affordability
- Public Connectivity
- Training and Resources

However, building out the infrastructure for broadband is still the biggest need, and the highest priority project in the South Central and Southside Virginia region. The 17 counties and three (3) cities in the region are very rural, and still very much in need of broadband/internet infrastructure. Furthermore, additional Cell Tower infrastructure is also needed to ensure across the board internet accessibility.

Until the infrastructure is sufficient to provide reliable connectivity/access to the majority of residents, the implementation of affordability programs and/or technology training programs is somewhat premature.