

FACILITIES BROADBAND

American Rescue Plan Act (ARPA) State and Local Fiscal Recovery Fund (SLFRF)



3/31/2022

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Report Mandate

Chapter 1 Enactment Clause 1, paragraph B.2.P.4., of the amended 2021 Acts of Assembly states, “The department shall communicate a detailed plan and implementation schedule to the Governor, the Chairs of the House Appropriations and Senate Finance and Appropriations Committees, and the Director of the Department of Planning and Budget by September 30, 2021. Additionally, the department shall report quarterly to the Governor, the Chairs of the House Appropriations and Senate Finance and Appropriations Committees, and the Director of the Department of Planning and Budget on progress made, with the first progress report to be delivered not later than December 31, 2021.”

Context for ARPA Initiatives

The Virginia Department of Health (VDH) is excited about the opportunity presented by the appropriation of ARPA State Fiscal Funds in the August 2021 Special Session II of the General Assembly to improve public health in Virginia. VDH views this investment as a once in a generation opportunity and will work diligently to maximize use of funds to initiate, implement and sustain these initiatives. Simultaneously, VDH is fully engaged in responding to COVID-19 and protecting the health of Virginians. Currently, VDH is developing project plans to minimize the impacts of the public health emergency on local health departments in the first year and will be flexible in the implementation of these initiatives as dictated by the emergency response. Modifications to VDH’s plans will be reflected in future quarterly reports.

Executive Summary

The Virginia Department of Health (VDH) seeks to upgrade the internet infrastructure of Local Health District (LHD) offices and client service areas throughout the Commonwealth to enable the delivery of broadband service at speeds of at least 100 Megabits per second (Mbps) download and 20 Mbps upload. As millions of Virginians pivoted to remote work and life during the COVID-19 pandemic, it underscored the importance of universally available, high-speed, reliable, and affordable broadband coverage for all citizens. Individuals and families continue to rely on the internet to increase their awareness of COVID variants, locate local healthcare resources, and request immunization records.

The COVID-19 pandemic exacerbated the demand for timely and accurate health data from VDH, which is necessary for public health decision-making and transparency with the public. In addition, sufficient broadband allows for timeliness and accuracy in the delivery of public health services that use web-based services (where services are scheduled, documented, and reported via those web-based systems and are reported to multiple different sources – such as vaccinations to Virginia Immunization Information System, VIIS).

With nearly 96% of assessed VDH buildings currently unserved or underserved by broadband (speeds less than 25 Mbps download and 3 Mbps upload), significant internet infrastructure upgrades are imperative for VDH to adequately serve Virginians post- COVID-19. The ARPA SLFRF funding will be used to upgrade unserved and underserved VDH facilities via fiber optic broadband connection, wireless 5G broadband connection, or reliable wireline connection.

Over the last three months, VDH has launched a pilot project to deliver broadband to 17 sites across the Commonwealth. The pilot is intended to test the quality of the selected vendors, better understand the end-to-end process for implementing broadband, and collect lessons learned to apply when implementing broadband at the remaining VDH sites.

Objective(s)

The objective of this initiative is to add a broadband connection to unserved and underserved VDH buildings that will reliably deliver speeds of 100 Mbps download and 20-100 Mbps upload, to:

- Enable internet speeds for the operation of an Electronic Health Records (EHR) system, digitized records storage, and increasingly automated administrative systems at each location
- Enable adequate bandwidth for employees to support day to day operations for the department
- Provide speeds adequate for two-way video conferencing between VDH and other stakeholders or patients who are unable to visit in person due to COVID-19
- Increase the capacity of each office to access online systems and resources to more efficiently complete daily operations and serve clients

Overview of Quarterly Progress (Jan – March 2021)

Since the submission of the December 31, 2021 quarterly report, VDH has completed the below activities associated with the Facilities Broadband Initiative. These accomplishments have positioned VDH to begin broadband service upgrades at VDH facilities in the coming months:

- Pilot Program
 - Selected 3 VITA approved Broadband service providers. The selection process was based on price, schedule, and experience in the Commonwealth. It included 20+ coordinated calls to better understand quotes and VITA contract constraints
 - Submitted work orders to begin work on each of the 17 pilot sites with the 3 selected vendors. 4 of the 17 sites have completed site assessments. Vendors expect sites to be complete between May 2022 and August 2022 depending on the complexity of the construction
 - Developed schedule of logically sequenced activities for VDH facilities broadband upgrades, from planning to implementation to closeout.
 - Scheduled weekly project management meetings with each of the three vendors to actively track projects and mitigate issues that arise
- Internal Engagement

- Met regularly with department leadership team to report on progress of the project. Additionally, met regularly on agency-wide forums to report on progress and answer questions
- External Engagement
 - Met with the VA Department of Housing and Community Development (DHCD) to determine how the VDH Broadband project could best collaborate within the Commonwealth's overall Broadband strategy. DHCD has agreed to leverage existing GIS maps to help inform VDH on sequencing of future site batches
 - Met with VITA Broadband contacts multiple times to resolve questions on Broadband contracts
 - Continued coordination with Department of Social Services on broadband and SD WAN efforts

Comments on Alignment to plan submitted in September 2021

The activities completed since the September 30, 2021 submission of the initial workplan have been important components of the Discovery & Facility Assessment project phase that, as outlined in the September workplan, was scheduled to continue through March 2022. The implementation of a fiber broadband pilot program prior to conducting site assessments for all facilities was not explicitly outlined as a step in the initial workplan but was identified as an important phase that will allow VDH to refine the facility upgrade process and gain efficiencies in the future. VDH will first focus on completing pilot site upgrades upon completion of the Discovery & Assessment phase. VDH then plans to use lessons learned to optimize the upgrade process before initiating the full implementation of site upgrades across the Commonwealth.

Anticipated Next Quarter Activities (April – June 2022)

The following outlines the activities and tasks planned from April through June 2022:

- Pilot Program
 - Complete at least 50% of the pilot sites with new broadband service
 - Document the lessons learned and apply to planning for the implementation of broadband at the remaining sites
 - Continue to monitor the remaining sites in the pilot program
- Full Implementation

- Utilize the sequencing tool to generate a project sequence for the remaining facility upgrades. Sites will be upgraded in batches, beginning with locations with the greatest need.
- Begin the process to identify and select vendors to implement the next batch of site upgrades. Lessons learned from the pilot program will be leveraged to minimize risk and exposure to unforeseen changes.
- Begin construction with Phase 1 sites

Risks and Risk Management

- **Risk 1:** EHR, Records Management, and Administrative Systems are all successor initiatives to the Facilities Broadband initiative and could be drastically impacted by communication or coordination shortcomings between the respective initiatives and the Broadband initiative.
 - **Mitigation Strategy:** The Broadband team will continue to collaborate closely with the EHR, Records Management, and Administrative Systems Initiative teams to confirm that VDH facilities are being scheduled for broadband upgrades prior to broadband-reliant system implementations.
- **Risk 2:** Sites are unique with varying access to broadband service. The initial plan assumes some degree of uniformity across all sites to identify likely candidates for fiber, wireless, or wireline broadband and the associated implementation complexity and costs; however, until individual site assessments are completed the exact needs at each site will not be known.
 - **Mitigation Strategy:** The initial site estimates will include high and low estimates of expenses, resources use, and time to complete to “plan for the worst” and build in contingency for unexpected outcomes from site assessments.
- **Risk 3:** VDH’s reliance on broadband vendors for material and equipment procurement and installation exposes the agency to a variety of potential risks, such as contractor’s experiencing unforeseen labor shortages, contractor’s inaccurately estimating the schedule or cost of a project, or contractor’s incorrectly installing upgrades, resulting in activation delays. These risks are outlined below for each service type:
 - ⊖ Wireline Broadband – these upgrades require significant coordination with VITA/Verizon supplier and site to perform site assessments, Verizon local phone carriers, localities, and state agencies for major construction and VDH sourced providers upgrade for minor site improvements to include cabling and conduit.
 - Fiber Broadband – these upgrades will require coordination with local broadband engineers to bring fiber optic cable from the nearest network to the premises and to install the necessary hardware within the facility. Finally, the service provider will be engaged to activate the service.

- Wireless Broadband – these upgrades require the least outside dependency, relying only on hardware installation and remote service activation.
- **Mitigation Strategy:** Based on the results of the initial site assessment, the initiative team will coordinate with contractors to establish the scope and realistic timelines to complete the work with the available resources.
- **Risk 4:** There is another dependency on the availability of the hardware that is necessary to make the broadband upgrades at each site – if there are supply chain delays on inventory, then the Broadband project could be delayed.
 - **Mitigation Strategy:** The impacts of procurement delays to critical equipment and material deliveries can be mitigated through comprehensive planning and scheduling efforts through collaboration with vendors. These measures will empower the VDH-IT team to confidently sequence projects and enable broadband technicians and engineers to assess site and facility conditions and order necessary equipment and materials with sufficient lead time between material ordering and the scheduled start date for installation.
- **Risk 5:** If VDH does not receive additional funds to support broadband service charges after the ARPA funds expire, the sites may lose service
 - **Mitigation Strategy:** VDH is beginning to assess ongoing service fees to request additional funds for when ARPA funds expire. If additional funds are not available, VDH will remove the wireline service and use those savings to pay for the Broadband service. This will result in no failover (backup) connectivity if Broadband service is disrupted.

Change Management Considerations

VDH understands that successful transformation initiatives rely on more than just the right technology, processes, and resources. They also depend on effective change management, communications, and engagement strategies to ensure stakeholders are equipped with the information and guidance that they need to support the changes. For the Broadband initiative, the successful implementation of critical upgrades will depend on ongoing two-way communication and engagement with a variety of local contacts.

These activities have been outlined in a communications plan that maps key internal and external stakeholders, assesses how they may be impacted and/or their role in supporting the effort, and establish strong feedback loops and channels for information-sharing. The primary objective of the strategy is to convey and ensure VDH-IT's transparency through regular updates to all impacted groups. Core communications channels will include monthly status updates via email and an intranet site to house content for internal stakeholders. Feedback loops will include monthly surveys and office hours, as well as an initiative-specific email inbox for two-way communication.

Project Budget

The project groups in the table below have been updated since the work plans submitted on 9/30/2021, due to the removal of wireline projects included in the initiative's original scope.

Total Appropriation: \$8,000,000

FY22 Appropriation: \$1,840,000

Cumulative Actuals, Obligations, and Appropriations, through March 14, 2022

Project Group	Current Period Actuals	FY22 YTD Actuals	FY22 YTD Obligations	FY22 Appropriations
Service Charge	\$0	\$0	\$0	\$54,000
Construction Costs	\$0	\$0	\$0	\$54,000
Other Initiative Needs	\$276,000	\$276,000	\$504,000	\$1,732,000
Totals	\$276,000	\$276,000	\$504,000	\$1,840,000

*Actuals represent transactions that have posted in Cardinal Web F&A as of 3/14/2022