# FACILITIES BROADBAND

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

VDH VIRGINIA
DEPARTMENT
OF HEALTH

9/30/2022

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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. 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 Department (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 resources 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 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. VDH selected 3 vendors capable of servicing the sites and utilized the pilot to test the quality of these 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. While the pilot project is still ongoing, VDH has used lessons learned from the pilot to kick-off Phase 1 of 3 at an additional 37 sites across the Commonwealth.

## 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 Mpbs 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 (July – September 2022)

Since the submission of the June 30, 2022 quarterly report, VDH has completed the below activities associated with the Facilities Broadband Initiative. These accomplishments provide VDH a clearer path forward for Phases 2 and 3 of rollout while finalizing the approach to close out upgrades at Pilot and Phase 1 sites:

*Key Activities and Accomplishments*

- *Pilot Project*
  - Completed broadband vendor construction at 13 sites, including laying new fiber lines, where needed. However, the Virgnia IT Agency (VITA) and Verizon have to install Secured Software Designed Wide Area Network (SD-WAN) before upgraded service is experienced by LHD staff

  - Managed broadband upgrades at 4 remaining pilot sites via management check-ins with vendors: resolved challenges faced by the LHDs and vendors, as needed. Of the remaining pilot sites, 3 are expected to finish construction in the coming weeks

- *Rollout to Remaining Sites: Phase 1 of 3*
  - Began process for broadband upgrades at 40 sites in Phase 1. VDH hosted 3 kick-off sessions to share Pilot Project lessons learned to local contacts with sites in Phase 1 of upgrades

  - Managed sites through various stages of completion. So far, 5 sites have already completed vendor construction; 15 have construction underway. Another 20 are currently acquiring the necessary permits and conducting site surveys to determine if room readiness upgrades are required

- ***Internal Engagement***
  - Used agency-wide forums, the VDH intranet site, and leadership briefings to share site status and answer stakeholders' questions about rollout

  - Aligned on path forward for security upgrades where VITA will rollout increased security to all Commonwealth sites this fall, at VITA's cost. After this is complete, sites will begin to experience increased service speeds

- ***External Engagement***
  - Collaborated with the VA Department of Housing and Community Development (DHCD) to utilize same broadband vendors DHCD is utilizing in their broadband upgrades. This will allow VDH to deliver fiber broadband to more locations rather than using an alternative technology

  - Continued to work with the VA Department of Social Services (DSS) to share best practices and lessons learned while they prepare for their own site upgrades

## Anticipated Next Quarter Activities (October – December 2022)

The following outlines the activities and tasks planned from October through December 2022:

- ***Pilot Project***
  - Finish broadband vendor construction at remaining Pilot sites

  - Install required security before activating upgraded broadband services at LHD sites

- ***Full Broadband Rollout: Phases 1-3***
  - Begin broadband upgrades at 57 Phase 2 sites in October

  - Prepare for VITA installation of SD-WAN, kicking off in October 2022. This will provide a single, Commonwealth-wide security solution. Once completed, VDH will fully align on steps in activation process so that sites can experience their increased speeds

  - Survey all sites to understand wireless capabilities. Plan and implement wireless upgrades at sites, as needed, to ensure that sites can fully utilize their new broadband services and that future VDH needs (e.g., electronic health records) will be fully supported

## Risks, Issues, and Management

- **Risk 1:** If there are supply chain delays on inventory, then the Broadband project could be delayed

  - **Mitigation Strategy:** Mitigate procurement delays for critical equipment and materials by planning and scheduling in 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 2:** If VITA's installation of SD-WAN does not remain on or ahead of schedule, then all sites' broadband upgrades may not be completed before the end of Fiscal Year 2023

  - **Mitigation Strategy:** VDH will collaborate with VITA to ensure SD-WAN is rolled out to VDH sites as soon as available. VDH will continue to upgrade our pilot sites first; this will allow VDH to gain lessons learned from implementing SD-WAN and inform future implementation.

- **Risk 3:** If VDH funding to support broadband services charges are insufficient once the ARPA funds expire, then sites will lose service

  - **Mitigation Strategy:** Monitor budget projections to determine when current ARPA funding will expire and when requests need to be submitted for additional funds. 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.

- **Issue 1:** Sites where broadband construction has already been completed cannot yet experience the full services and experience the faster speeds until after VITA has installed their security solution (SD-WAN)

  - **Mitigation Strategy:** VDH has requested that providers start services only when sites are fully operational, including security installation has occurred. Additionally, VDH and VITA are working closely to ensure VDH sites have priority in installation and that VDH has full understanding of security installation timeline.

## 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 communications and engagement strategies to equip stakeholders with the information and guidance that they need to support the changes taking place. 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 demonstrate VDH-IT's transparency through regular updates to all impacted groups. Core communications channels include regular status updates to stakeholders via email, an intranet site to house content for internal stakeholders, an initiative-specific email inbox for two-way communication, and regular briefings to Central Office and LHD stakeholders across a variety of VDH forums.

## Project Budget

*Budget, Obligations, and Actuals as of September 2022*

| Total Appropriation | | Total Obligations *(To Date)* | | Total Expenditures *(To Date)* | |
|---|---|---|---|---|---|
| | $8,000,000 | | $4,220,000 | | $812,200 |