**MID-HUDSON LIBRARY SYSTEM**

103 Market Street
Poughkeepsie, New York 12601-4028
Phone: 845.471.6060
Fax: 845.454.5940
http://midhudson.org

**Final Report for
Beyond the Library: Wi-Fi Access**

A final report must be submitted to Southeastern NY Library Resources Council by March 31, 2023, for the ARPA grant project, Beyond the Library: Wi-Fi Access, received by the public library systems. The final report needs to include the narrative elements listed below, including outputs and outcomes, as well as expenditures for the project. This project was awarded to the system for September 1, 2021, through March 31, 2023 (extended from June 30, 2022).

**Name of System**: Mid-Hudson Library System (MHLS)
**Project Contact**: Laurie Shedrick

**Part I. Final Report Narrative**

A. Describe in detail the digital inclusion activities you accomplished with these ARPA funds. Report on each activity and include information on partners.
The "Beyond the Library-Wi-Fi Access Project" will extend the wireless internet signal at participating libraries to reach up to 300 feet beyond the walls of the library, in all directions, on library property and in more densely populated neighborhoods into nearby homes and businesses.

For communities in which broadband access is not affordable or even accessible, the library serves as a primary location to connect to the internet to ensure equitable access for school, work, lifelong learning, government participation, and more. This project will allow residents to access the internet from their car in the parking lot, in outdoor spaces on library property, and beyond.

**Target Audience(s)** (describe methods used to determine target audience(s) in order to reach the unserved and underserved-required for Digital Inclusion)

This project's target audience will encompass those patrons currently aware of their ability to use the library's Wi-Fi signal to connect to the internet and targeted marketing to others in the community who are unable to access the internet due to lack of availability or affordability.

The project addressed community accessibility to broadband needs by extending the Internet Wi-Fi beyond the library building and hours. This extension created access that extended service to parking areas, gardens, pavilions gazebos and other public spaces around the library. For those in economic crisis or areas where broadband isn't a fully formed reality, the library can fill the void. We are already seeing the proof of this in many of our very rural areas and cities alike.

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MHLS IT staff ordered and received the equipment and completed the configuration the necessary configuration to install the units on the local library network.  The units are configured to be managed remotely by MHLS who will continue to monitor and provide software updates and statistical reporting monthly.  Each unit was procured, configured and installed onsite by an IT specialist.  On the date of installation, the unit was at once operational.  Our libraries have held embraced this new access in several ways including ribbon cutting ceremonies and public announcements.

MHLS worked to complete this task, navigating significant delays due to supply chain issues, staffing shortages and a condensed timeline to acquire, configure and install 43 Units, which are now all fully operational, remotely managed cloud platform (fig1), and serving the communities where they have been installed.

This project proves once more that libraries serve as community learning spaces offering high-quality lifelong learning, literacy, and knowledge creation opportunities that enhance civic engagement and economic vitality.

B. List partners by activity. Include partner type (government, non-profit, library, cultural organization, human service organization, school, etc.). If not applicable, indicate with N/A. N/A

C. Below are the outcome statement and outcome targets from the approved application for Beyond the Library: Wi-Fi Access:
- 80% of libraries that meet the definition of service an economically disadvantaged community will have a Beyond the Library WI-FI Access Point available to their community members by March 15, 2023.
- 90% of libraries using a Beyond the Library WI-FI Access Point will convey a 25% increase in WI-FI usage by March 15, 2023.

1. Report on this outcome statement.
   100% of the libraries where the definition of an economically disadvantaged community was met, were approached to be included in the project.  10% (4)declined.  The remaining 90%, along with 5 additional sites were in installed with devices and are monitored by MHLS staff who supply activity reports and statistics both monthly and in an annual report.  Additional sites were included based on being close to the definition of economic need or in areas with reduced internet coverage.

   The impact of extending library service beyond the library's physical structure and the hours of operation, is not just measured in user statistics, but also in the possibilities it opens up.  One library used the unit to extend external service to a new outdoor meeting space, and for all others it was the first external Wi-Fi service offered.  For another library, this is the

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first available Wi-Fi service anywhere on premises.

**MHLS Libraries**



The **Rosendale Library** celebrated the opening of its new outdoor program space on June 15th. The screened, 14-foot-by-20-foot gazebo is situated under a canopy of large old maple trees and next to the library building. It will be the location of many of the library's programs such as the weekly story hour and the monthly slow jam for string instruments and the library's summer reading program. The gazebo building was funded in part through a New York State Library Construction Grant. The gazebo will have a Wi-Fi router provided through the **Beyond the Library** Wi-Fi access point project. This program was supported with federal American Rescue Plan Act (ARPA) funds allocated to the New York State Library by the Institute of Museum and Library Services (IMLS).

The excerpt above is from the MHLS Bulletin vol.22-27 7.5.2022

2. Provide the final percentages for each outcome target:
   - 90% of libraries that meet the definition of service to an economically disadvantaged community have a Beyond the Library Wi-Fi Access Point available to their community members.
   - 90% of libraries using a Beyond the Library Wi-Fi Access Point convey a 25% increase in Wi-Fi usage or greater.  Most saw increases over 39%.

D. Below are the outputs from the approved application for Beyond the Library: Wi-Fi Access:

   - 44 Access points installed at libraries in the Mid-Hudson Library System.
   - Through this project, at least 43 site visits to installation locations were conducted in the Mid-Hudson Library system.
   - Through this project, at least 1 statistical usage report for each installation location has been generated for each installation location by the end of the grant period.
   - MHLS supports and reports statistical data monthly and summarizes annually

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1. Submit the output information in a table with the following data elements:  Library Name, County, Number of APs Purchased & Configured, Cost of Access Points Hardware, Cost to Configure, Total Cost, and the Go Live Date.

**ARPA Subaward for Wi-Fi Access Points (AP)**

| Library | County | % of Students Eligible for NSLP as of 03/2020 | Prior # Of APs | # of APs Purchased & configured | External Access Points Hardware | MHLS Cost to Configure AP Hardware | Total Cost | Go Live Install / Config AP Active |
|---|---|---|---|---|---|---|---|---|
| **Amenia Free Library** | **Dutchess** | **61.30%** | **1** | **1** | **$1,329.22** | **$223.44** | **$1,552.66** | **06/17/22** |
| **Beekman Library** | **Dutchess** | **26.5%** | **1** | **1** | **$1,329.22** | **$142.14** | **$1,471.36** | **7/21/22** |
| **Blodgett Memorial Library** | **Dutchess** | **41.70%** | **1** | **1** | **$1,329.22** | **$183.42** | **$1,512.64** | **7/11/22** |
| **Cairo Public Library** | **Greene** | **80.60%** | **1** | **1** | **$1,329.22** | **$291.83** | **$1,621.05** | **7/1/22** |
| **Canaan Branch of Chatham Public Library** | **Columbia** | **39.60%** | **0** | **1** | **$1,329.22** | **$402.64** | **$1,731.86** | **5/22/22** |
| **Chatham Public Library** | **Columbia** | **39.60%** | **3** | **1** | **$1,329.22** | **$317.39** | **$1,646.61** | **5/20/22** |
| **Claverack Free Library** | **Columbia** | **89.50%** | **0** | **1** | **$1,329.22** | **$349.42** | **$1,678.64** | **5/31/22** |
| **Clinton Community Library** | **Dutchess** | **22.4%** | **1** | **1** | **$1,329.22** | **$149.71** | **$1,478.93** | **6/3/22** |
| **D.R. Evarts Library** | **Greene** | **100.00%** | **1** | **1** | **$1,329.22** | **$287.47** | **$1,616.69** | **6/2/22** |

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| Library | County | % | | | | | | Date |
|---|---|---|---|---|---|---|---|---|
| Desmond-Fish Public Library | Putnam | 14.2% | 1 | 1 | $1,329.22 | $184.68 | $1,513.90 | 5/16/22 |
| Dover Plains Library | Dutchess | 54.50% | 1 | 1 | $1,329.22 | $192.69 | $1,521.91 | 6/24/22 |
| Greenville Public Library | Greene | 33.90% | 1 | 1 | $1,329.22 | $329.60 | $1,658.82 | 6/15/22 |
| Grinnell Public Library District | Dutchess | 44.10% | 1 | 1 | $1,329.22 | $148.03 | $1,477.25 | 6/1/22 |
| Heermance Memorial Library | Greene | 100.00% | 3 | 1 | $1,329.22 | $326.65 | $1,655.87 | 5/11/22 |
| Highland Public Library | Ulster | 36.90% | 0 | 1 | $1,329.22 | $217.55 | $1,546.77 | 6/16/22 |
| Howland Public Library | Dutchess | 41.70% | 3 | 1 | $1,329.22 | $184.12 | $1,513.34 | 5/9/22 |
| Hudson Area Library | Columbia | 89.50% | 5 | 1 | $1,329.22 | $272.73 | $1,601.95 | 5/11/22 |
| Hunter Public Library | Greene | 65.00% | 1 | 1 | $1,329.22 | $315.56 | $1,644.78 | 7/1/22 |
| Hurley Library | Ulster | 69.60% | 0 | 1 | $1,329.22 | $295.35 | $1,624.57 | 6/17/22 |
| Hyde Park Library District | Dutchess | 45.20% | 1 | 1 | $1,329.22 | $147.19 | $1,476.41 | 6/27/22 |
| Julia L. Butterfield Memorial Library | Putnam | 14.2% | 2 | 1 | $1,329.22 | $180.05 | $1,509.27 | 5/17/22 |
| Kinderhook Memorial Library | Columbia | 34.20% | 0 | 1 | $1,329.22 | $392.81 | $1,722.03 | 5/20/22 |
| LaGrange Association Library | Dutchess | 26.5% | 0 | 1 | $1,329.22 | $210.95 | $1,540.17 | 6/21/22 |

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| Millbrook Library | Dutchess | 26.5% | 1 | 1 | $1,329.22 | $147.39 | $1,476.61 | 5/23/22 |
|---|---|---|---|---|---|---|---|---|
| Morton Memorial Library | Ulster | 44.10% | 1 | 1 | $1,329.22 | $314.02 | $1,643.24 | 7/1/22 |
| Mountain Top Library | Greene | 65.00% | 1 | 1 | $1,329.22 | $257.00 | $1,586.22 | 5/31/22 |
| North Chatham Free Library | Columbia | 36.3% | 1 | 1 | $1,329.22 | $302.36 | $1,631.58 | 5/11/22 |
| NorthEast-Millerton Library | Dutchess | 61.30% | 1 | 1 | $1,329.22 | $262.55 | $1,591.77 | 6/11/22 |
| Olive Free Library Association | Ulster | 44.10% | 1 | 1 | $1,329.22 | $276.80 | $1,606.02 | 6/15/22 |
| Philmont Public Library | Columbia | 61.00% | 1 | 1 | $1,329.22 | $281.02 | $1,610.24 | 5/11/22 |
| Phoenicia Library | Ulster | 44.10% | 2 | 1 | $1,329.22 | $281.30 | $1,610.52 | 6/17/22 |
| Plattekill Public Library | Ulster | 32.70% | 0 | 1 | $1,329.22 | $255.19 | $1,584.41 | 6/28/22 |
| Roeliff Jansen Community Library | Columbia | 61.00% | 1 | 1 | $1,329.22 | $284.10 | $1,613.32 | 5/11/22 |
| Rosendale Library | Ulster | 47.20% | 3 | 1 | $1,329.22 | $188.47 | $1,517.69 | 7/5/22 |
| Saugerties Public Library | Ulster | 43.30% | 5 | 1 | $1,329.22 | $229.06 | $1,558.28 | 6/6/22 |
| Staatsburg Library | Dutchess | 45.20% | 0 | 1 | $1,329.22 | $253.08 | $1,582.30 | 6/27/22 |
| Starr Library | Dutchess | 22.4% | 0 | 1 | $1,329.22 | $249.29 | $1,578.51 | 6/27/22 |

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| Stone Ridge Library | Ulster | 47.20% | 0 | 1 | $1,329.22 | $295.49 | $1,624.71 | 6/27/22 |
|---|---|---|---|---|---|---|---|---|
| Town of Esopus Library | Ulster | 69.60% | 2 | 1 | $1,329.22 | $148.87 | $1,478.09 | 6/7/22 |
| Town of Ulster Public Library | Ulster | 69.60% | 1 | 1 | $1,329.22 | $192.69 | $1,521.91 | 6/13/22 |
| Valatie Public Library | Columbia | 36.3% | 1 | 1 | $1,584.90 | $283.52 | $1,868.42 | 3/13/23 |
| West Hurley Public Library | Ulster | 44.10% | 2 | 1 | $1,329.22 | $233.27 | $1,562.49 | 6/23/22 |
| Windham Public Library | Greene | 49.40% | 0 | 1 | $1,329.22 | $438.59 | $1,767.81 | 6/15/22 |
| Woodstock Public Library District | Ulster | 44.10% | 1 | 1 | $1,329.22 | $165.15 | $1,494.37 | 7/28/22 |
| | | | | | | | | Total cost |
| Total | | | 54 | 44 | $58,741.36 | $11,084.63 | $69,825.99 | $11,084.63 |

3. Provide a statistical usage report for each installation location. Include it below as an image, a table, or an attachment to the report. (Note: Since the grant deadline was extended, please provide as much usage data as possible, with the understanding that you may not have March 2023 since the final report is due March 31).

The following report shows the increased Wi-Fi usage provided through the Beyond the Library {BtL) WiFi Access project in context with any existing Wi-Fi.

| Library Name | Beyond the Library Wi-Fi added | Existing Wi-Fi | Total | % Added w/BtL | % Total |
|---|---|---|---|---|---|
| Amenia Free Library Count | 855 | 1534 | 2389 | 55.7% | 35.8% |
| Athens Library Count | 1923 | 667 | 2590 | 288.3% | 74.2% |
| Beekman Library Count | 19 | 5563 | 5582 | 0.3% | 0.3% |
| Cairo Public Library Count | 1787 | 3092 | 4879 | 57.8% | 36.6% |
| Canaan Branch Count | 336 | 0 | 336 | | 100.0% |
| Chatham Public Library Count | 2576 | 5734 | 8310 | 44.9% | 31.0% |
| Claverack Library Count | 7 | 0 | 7 | | 100.0% |
| Clinton Community Library Count | 2176 | 383 | 2559 | 568.1% | 85.0% |
| Cold Spring Library Count | 4781 | 7522 | 12303 | 63.6% | 38.9% |
| Dover Library Count | 2506 | 4320 | 6826 | 58.0% | 36.7% |
| Esopus Library Count | 808 | 2316 | 3124 | 34.9% | 25.9% |
| Fishkill Library Count | 3344 | 8145 | 11489 | 41.1% | 29.1% |
| Garrison Library Count | 4628 | 8517 | 13145 | 54.3% | 35.2% |
| Greenville Public Library Count | 6674 | 3910 | 10584 | 170.7% | 63.1% |
| Heermance Memorial Library Count | 2604 | 14234 | 16838 | 18.3% | 15.5% |
| Highland Public Library Count | 94 | 0 | 94 | | 100.0% |
| Hillsdale Library Count | 2496 | 5478 | 7974 | 45.6% | 31.3% |
| Howland Public Library Count | 5761 | 10821 | 16582 | 53.2% | 34.7% |
| Hudson Area Library Count | 2011 | 16663 | 18674 | 12.1% | 10.8% |
| Hunter Public Library Count | 2324 | 1734 | 4058 | 134.0% | 57.3% |
| Hurley Library Count | 2075 | | 2075 | | 100.0% |
| Hyde Park Free Library Count | 3358 | 3247 | 6605 | 103.4% | 50.8% |
| Kinderhook Memorial Library Count | 398 | 0 | 398 | | 100.0% |
| Lagrange Public Library Count | 122 | 0 | 122 | | 100.0% |
| Millbrook Library Count | 1256 | 3604 | 4860 | 34.9% | 25.8% |
| Mountain Top Library Count | 982 | 1558 | 2540 | 63.0% | 38.7% |
| North Chatham Free Library Count | 879 | 957 | 1836 | 91.8% | 47.9% |
| Northeast Millerton Library Count | 426 | 670 | 1096 | 63.6% | 38.9% |

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| | | | | | |
|---|---|---|---|---|---|
| Olive Free Library Count | 1442 | 3922 | 5364 | 36.8% | 26.9% |
| Philmont Public Library Count | 3758 | 4159 | 7917 | 90.4% | 47.5% |
| Phoenicia Public Library Count | 1444 | 4200 | 5644 | 34.4% | 25.6% |
| Pine Hill Public Library Count | 793 | 408 | 1201 | 194.4% | 66.0% |
| Plattekill Public Library Count | 541 | 0 | 541 | | 100.0% |
| Rhinebeck Library Count | 21 | 0 | 21 | | 100.0% |
| Rosendale Library Count | 9519 | 6775 | 16294 | 140.5% | 58.4% |
| Saugerties Public Library Count | 1 | 56391 | 56392 | 0.0% | 0.0% |
| Staatsburg Library Count | 220 | 0 | 220 | | 100.0% |
| Stone Ridge Public Library Count | 123 | 0 | 123 | | 100.0% |
| Ulster Public Library Count | 691 | 1736 | 2427 | 39.8% | 28.5% |
| Valatie Free Library Count | 19 | 3080 | 3099 | 0.6% | 0.6% |
| Wappingers Library Count | 112 | 74 | 186 | 151.4% | 60.2% |
| West Hurley Public Library Count | 2160 | 4682 | 6842 | 46.1% | 31.6% |
| Windham Public Library Count | 1059 | 0 | 1059 | | 100.0% |
| Woodstock Public Library Count | 208 | 9718 | 9926 | 2.1% | 2.1% |
| Grand Count | 79317 | 205814 | 285131 | 39% | 28% |
| | | | Average | 85% | 52% |
| | | | Median | 54% | 39% |

E. Provide a short description of what the system did with its award and the final award amount.

The Mid-Hudson Library System prioritized the libraries in communities with the most economic need.  The goal to provide Wi-Fi signals beyond the walls and regularly scheduled hours, towards improving internet access in these communities was paramount.  We negotiated with our vendor, RONCO, to provide a group discounted purchase of Access Point units, power supplies and licensing to be installed.  The procurement of the equipment was one of our biggest hurdles to manage during supply chain shortages due to COVID19 decreased production and high demand for equipment and anything including computer chips.  Eventually, the vendor was able to broker units through arrangements beyond the usual resources, but it did take a great deal of constant pressure and prodding to complete our purchases within the grant period and install our final units.  The extension of the grant deadline was required for us to manage through the supply issues.

We created a survey tool to gather the policy information, building plans and the narrative from each library.  We gathered necessary information about the network and location for installation.  From the information gathered in the survey, we were able to create the new accounts, setup the policies within our Extreme Networks platform, and complete preliminary testing.  We also used the survey to evaluate any need for further information and troubleshoot

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any concerns before hitting the road for our onsite installations.  We ensured the units would be installed in an effective location that was cable ready.

Once onsite, our technicians completed the physical installation of the unit and made the local network and policy edits.  The units were tested for access and policy compliance.  Before leaving each site, the technician provided a brief site training on the unit and the extension of the Wi-Fi it provided.   The units are included in our remotely monitored Extreme Networks platform.  The platform allows us to view each unit's status at all times, and disruption is alerted, and can usually be corrected before it is reported.  Mid-Hudson Library System is committed to maintaining this platform and service through the life of the 5 year license included in this grant and will support the maintenance agreements with the vendors.  We provide monthly and annual statistical reports to each library.

F. Is there anything else to share with the State Library and IMLS about this project? A story, an image, an anecdote? If so, please share it here or as an attachment.

The challenges of the pandemic, particularly in navigating the supply chain for procuring equipment, added time and intensity to facilitating the requirements for completion.  We knew the grant existed and we began researching the equipment…we knew that the grant would be passed through our Resources Council who regularly gave us updates, but it seemed like we waited and waited to get instruction, and a green light.  By the time we got the green light to move forward, the window to complete the procurement, information gathering, and 44 onsite visits was short.   We literally, laid hands on our last unit, after much work with our vendor, within 2 weeks of our extended due date, and barely got it in place to show statistical data in time to submit the final report.  It was a nail biter.  Operating through staff shortages and illness, both on our team and at the libraries we needed to visit, was challenging due to ongoing issues with COVID19.   This grant was an incredible opportunity for our libraries, but the fact is, we had many obstacles put in place by the pandemic that were exacerbated by a brief window for executing the tasks in that strained environment.  In the future, as you work through the details of grant management, consider the window for completion and the obstacles involved in the current environment when establishing deadlines and deliverables.   While library people are amazing at managing the impossible, any help to meet the moment is appreciated.

## Part 2. Supplies and Materials

A.  List all purchases that were made as part of this award. Provide the following information: Vendor, Make/Model, Category (hardware/software), Unit Cost, Quantity, and Total Cost (Unit Cost X Quantity).

| Vendor | Make and Model | Category | Unit Cost | Quantity | Total Cost |
|--------|----------------|----------|-----------|----------|------------|
| Ronco | Extreme Networks AP460C | Hardware | $775.00 | 43 | $33,325.00 |
| | Extreme Networks AP460C | Hardware | $1029.00 | 1 | $1029.00 |

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|---|---|---|---|---|---|
| Ronco | Microsemi 1-Port 802.3at Gigabit PoE Midspan | Hardware | $76.87 | 44 | $3382.28 |
| Ronco | Extreme Networks Pwr Cord, 10A, NEMA 5-15P, C13 | Hardware | $12.00 | 44 | $528.00 |
| Ronco | SHD RJ45 Connectors 100Pcs | Hardware | $8.89 | 1 | $8.89 |
| Ronco | Extreme Networks EW Software & TAC - AP460C-FCC, Term: 1,825 Days | Software | $112.50 | 44 | $4950.00 |
| Ronco | Extreme Networks ExtremeCloud IQ Pilot SaaS Subscription and EW SaaS Support for one | Software | $349.83 | 43 | $15,042.69 |
| Ronco | Extreme Networks ExtremeCloud IQ Pilot SaaS Subscription and EW SaaS Support for one | Software | $351.00 | 1 | $351.00 |
| Ronco | Monoprice Cat6 Ethernet Patch Cable 5ft Zeroboot Series | Hardware | $2.49 | 50 | $124.50 |

Please return this form to Tessa Killian, killian@senylrc.org, by March 31, 2023.

Your Signature: _____ Today's Date: __3/15/2023__