

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

SSIP Overview

Page Last Modified: 02/27/2019

Institution ID

800000039496

1. Please enter the name of the person to contact regarding this submission.

Anthony Cammarata

- 1a. Please enter their phone number for follow up questions.

5187534458

- 1b. Please enter their e-mail address for follow up contact.

acammarata@hoosicvalley.k12.ny.us

2. Please indicate below whether this is the first submission, a new or supplemental submission or an amended submission of an approved Smart Schools Investment Plan.

First submission

3. All New York State public school districts are required to complete and submit a District Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations. Districts that include investments in high-speed broadband or wireless connectivity and/or learning technology equipment or facilities as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department. **By checking this box, you certify that the school district has an approved District Instructional Technology Plan survey on file with the New York State Education Department.**

☒ District Educational Technology Plan Submitted to SED and Approved

4. Pursuant to the requirements of the Smart Schools Bond Act, the planning process must include consultation with parents, teachers, students, community members, other stakeholders and any nonpublic schools located in the district.

By checking the boxes below, you are certifying that you have engaged with those required stakeholders. *Each box must be checked prior to submitting your Smart Schools Investment Plan.*

- ☒ Parents
☒ Teachers
☒ Students
☒ Community members

- 4a. If your district contains non-public schools, have you provided a timely opportunity for consultation with these stakeholders?

- ☐ Yes
☐ No
☒ N/A

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

SSIP Overview

Page Last Modified: 02/27/2019

5. **Certify that the following required steps have taken place by checking the boxes below: *Each box must be checked prior to submitting your Smart Schools Investment Plan.***

- ☒ The district developed and the school board approved a preliminary Smart Schools Investment Plan.
- ☒ The preliminary plan was posted on the district website for at least 30 days. The district included an address to which any written comments on the plan should be sent.
- ☒ The school board conducted a hearing that enabled stakeholders to respond to the preliminary plan. This hearing may have occurred as part of a normal Board meeting, but adequate notice of the event must have been provided through local media and the district website for at least two weeks prior to the meeting.
- ☒ The district prepared a final plan for school board approval and such plan has been approved by the school board.
- ☒ The final proposed plan that has been submitted has been posted on the district's website.

- 5a. **Please upload the proposed Smart Schools Investment Plan (SSIP) that was posted on the district's website, along with any supporting materials. Note that this should be different than your recently submitted Educational Technology Survey. The Final SSIP, as approved by the School Board, should also be posted on the website and remain there during the course of the projects contained therein.**

Hoosic Valley CSD Smart School Investment Plan PRELIMINARY PLAN 10 27 2017.pdf

- 5b. **Enter the webpage address where the final Smart Schools Investment Plan is posted. The Plan should remain posted for the life of the included projects.**

<http://www.hoosicvalley.k12.ny.us/News17-18/SmartSchoolsBondAct.asp>

6. **Please enter an estimate of the total number of students and staff that will benefit from this Smart Schools Investment Plan based on the cumulative projects submitted to date.**

1,080

7. **An LEA/School District may partner with one or more other LEA/School Districts to form a consortium to pool Smart Schools Bond Act funds for a project that meets all other Smart School Bond Act requirements. Each school district participating in the consortium will need to file an approved Smart Schools Investment Plan for the project and submit a signed Memorandum of Understanding that sets forth the details of the consortium including the roles of each respective district.**

- ☐ The district plans to participate in a consortium to partner with other school district(s) to implement a Smart Schools project.

8. **Please enter the name and 6-digit SED Code for each LEA/School District participating in the Consortium.**

Partner LEA/District	SED BEDS Code
(No Response)	(No Response)

9. **Please upload a signed Memorandum of Understanding with all of the participating Consortium partners.**

(No Response)

10. **Your district's Smart Schools Bond Act Allocation is:**

\$967,472

11. **Enter the budget sub-allocations by category that you are submitting for approval at this time. If you are not budgeting SSBA funds for a category, please enter 0 (zero.) If the value entered is \$0, you will not be required to**

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

SSIP Overview

Page Last Modified: 02/27/2019

complete that survey question.

	Sub-Allocations
School Connectivity	61,184
Connectivity Projects for Communities	0
Classroom Technology	525,367
Pre-Kindergarten Classrooms	0
Replace Transportable Classrooms	0
High-Tech Security Features	0
Totals:	586,551

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

School Connectivity

Page Last Modified: 02/27/2019

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that:

- sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or
- is a planned use of a portion of Smart Schools Bond Act funds, or
- is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

As a precondition to utilizing the SSBA allocations, each District has ensured that there is adequate Internet bandwidth (equal to or exceeding 100 Mbps per 1000 students) to sustain computer-based initiatives. The District's current internet bandwidth meets the SSBA requirements. The District has recently worked with Time Warner Cable to increase District bandwidth to required levels. Time Warner Cable has completed the construction of the fiber optic cables and equipment to the District. The District technology staff moved to the new connection in February 2017

- 1a. If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. Connectivity Speed Calculator (Required)

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	959	95,900	95.9	100	100	Currently Met

3. **Describe how you intend to use Smart Schools Bond Act funds for high-speed broadband and/or wireless connectivity projects in school buildings.**

With the ever-increasing demand for network resources, the HVCSD has several wiring closets unable to support additional network connectivity. These network connectivity demands include additional computers, Chromebooks, copiers, digital signage, IP cameras, iPads, Smart TVs, VoIP phones and gateways, as well as wireless access points. To meet these demands, additional Hewlett Packard switches and hardware are required to provide additional ports; a list is provided below. The current Hewlett Packard network solution provides Hoosic Valley with a robust data & voice PoE network, comprised of stackable switches, a 10GB fiber backbone and 1GB speeds to the desktop and other endpoints. Since its implementation, Hoosic Valley has purchased 240 Chromebooks, 90 Cisco IP phones, 90 iPads, 50 Wireless Access Points(High School Building) and several Smart TVs.

Location Current Available Ports Quantity and Switch Types Needed

ES-Break Room 30 (1) HPE-3800-48G-PoE+4SFP+ Switch 48 Port

ES-Room-54 13 (1) HPE-2920-48G-PoE+740 Switch 48 Port

ES-Room-17 0 (1) HPE-2920-48G-PoE+740 Switch 48 Port

HS LGIA 22 (1) HPE-3800-48G-PoE+4SFP+ Switch 48 Port

HS-Room-121 5 (1) HPE-2920-48G-PoE+740 Switch 48 Port

HS-Room-20 2 (1) HPE-2920-48G-PoE+740 Switch 48 Port

HS-Room-226 0 (1) HPE-2920-48G-PoE+740 Switch 48 Port

Spare (1) HPE-3800-48G-PoE+4SFP+ Switch 48 Port

To take full advantage of any potential Smart Schools Bond Act funding for classroom technology, Hoosic Valley upgraded the existing 1GB, campus fiber backbone, with a 10GB, hybrid fiber cable in 2014-2015. This hybrid fiber cable is currently supporting a 10GB backbone and can support speeds of 40GB and 100GB in the future. As part of this network upgrade, Hoosic Valley replaced the outdated Cisco data network with a more affordable Hewlett Packard solution. In 2015-2016, Hoosic Valley completely upgraded the Cisco VoIP infrastructure including call managers, unity, gateways, routers, and IP phones. In order to meet the increased need for online access and to meet the bandwidth requirements for the SSBA, the District plans to purchase eight network server switches to add to existing equipment. Additionally, the original wireless access switches that support the District's current wireless network at the Elementary School will be replaced with 40 new Aruba wireless access point switches which will be capable of supporting higher throughput and will have PoE functionality.

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

School Connectivity

Page Last Modified: 02/27/2019

4. Describe the linkage between the district's District Instructional Technology Plan and the proposed projects. (There should be a link between your response to this question and your response to Question 1 in Part E. *Curriculum and Instruction* "What are the district's plans to use digital connectivity and technology to improve teaching and learning?")

The Hoosic Valley Central School district provides a comprehensive consistent and complete technology integration that prepares students to effectively participate in the 21st century and graduate college and be career ready. Emphasis is placed on developing technology skills and competence as well as teaching students to use these skills ethically, responsibly and efficiently. Our district technology plan adheres to the current ISTE standards.

These standards guide students through opportunities using technology to develop skills that encourage personal productivity, creativity, critical thinking and collaboration in the classroom and in their daily lives. In addition to these skills students will be proficient researching information relative to their current units of study. As a result students will be knowledgeable with current programs, operational systems and applications.

According to Butzin, researchers running a program called Project Child (Computers Helping Instruction and Learning Development) showed that students in K-5 classrooms that had ready to use technology for instruction consistently had "higher test scores and better discipline than their counterparts" (Butzin, 2000, p.3). Having technology on hand in the classroom will provide teachers the opportunity for active engagement and real world connections to set a meaningful purpose for learning.

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_ FirstSubmission_#1ER

School Connectivity

Page Last Modified: 02/27/2019

5. If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.

Please describe how you have quantified this demand and how you plan to meet this demand.

Using different sources of funding, the Hoosic Valley CSD, upgraded its outdated (1Gb.) campus fiber network backbone in 2014-2015. With the installation of a new hybrid fiber cable, it is currently supporting a 10Gb. network backbone and can support future speeds, of 40 and 100Gb.

To maintain its wireless network, Hoosic Valley has deployed Aruba Networks, AirWave Management Platform 8.2.1.1 (Hewlett Packard Enterprise). AirWave is a management platform designed for classroom mobile devices such as Chromebooks, iPads, Smart TVs and their respective applications. It proactively monitors the health status and performance of all things connected, to gain the insights needed to support the districts wireless network.

AirWave monitors client behavior, proactively troubleshooting application issues, and aids in the planning for future capacity expansion. The district continues to work with product support specialist at Aruba (Hewlett Packard Enterprise) to utilize the system to produce reports on user traffic. Included in the districts current investment plan is the replacement of the original older wireless access points at the Elementary School with 40 new Aruba wireless access point switches which will be capable of supporting higher throughput and will have PoE functionality

6. As indicated on Page 5 of the guidance, the Office of Facilities Planning will have to conduct a preliminary review of all capital projects, including connectivity projects.

Please indicate on a separate row each project number given to you by the Office of Facilities Planning.

Project Number
491401040001BA1
491401040002BA1

7. Certain high-tech security and connectivity infrastructure projects may be eligible for an expedited review process as determined by the Office of Facilities Planning.

Was your project deemed eligible for streamlined review?

Yes

- 7a. Districts that choose the Streamlined Review Process will be required to certify that they have reviewed all installations with their licensed architect or engineer of record and provide that person's name and license number. The licensed professional must review the products and proposed method of installation prior to implementation and review the work during and after completion in order to affirm that the work was code-compliant, if requested.

☒ I certify that I have reviewed all installations with a licensed architect or engineer of record.

8. Include the name and license number of the architect or engineer of record.

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

School Connectivity

Page Last Modified: 02/27/2019

Name	License Number
Thomas J. Kenney	15921

9. If you are submitting an allocation for School Connectivity complete this table.

Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Network/Access Costs	50,856
Outside Plant Costs	(No Response)
School Internal Connections and Components	10,328
Professional Services	(No Response)
Testing	(No Response)
Other Upfront Costs	(No Response)
Other Costs	(No Response)
Totals:	61,184

10. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be eligible for tax-exempt financing to be reimbursed through the SSBA. Sufficient detail must be provided so that we can verify this is the case. If you have any questions, please contact us directly through smartschools@nysed.gov.

NOTE: Wireless Access Points should be included in this category, not under Classroom Educational Technology, except those that will be loaned/purchased for nonpublic schools.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Network/Access Costs	Aruba 3810 48G PoE 1 Slot 48 Port Switch	2	3,987	7,973
Network/Access Costs	Aruba X372 Power Supply	9	526	4,734
Connections/Components	Aruba expansion module	4	705	2,820
Connections/Components	Aruba Network Stacking module	2	616	1,232
Connections/Components	HPE SFP+ transceiver module-10GigE	1	1,561	1,561
Connections/Components	HPE stacking cable-	2	139	278
Network/Access Costs	Aruba 2930 48G 1 Slot Switch PoE 48 ports	5	3,550	17,749

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_ FirstSubmission_#1ER

School Connectivity

Page Last Modified: 02/27/2019

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be purchased	Quantity	Cost per Item	Total Cost
Connections/Components	Aruba Network Stacking Module	5	571	2,855
Connections/Components	HPE-SFP+transceiver Module-10GigE	2	582	1,164
Connections/Components	HPE stacking cable	5	83	418
Network/Access Costs	Aruba Instant IAP-315 Wireless Access Point Switches	40	510	20,400

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

1. In order for students and faculty to receive the maximum benefit from the technology made available under the Smart Schools Bond Act, their school buildings must possess sufficient connectivity infrastructure to ensure that devices can be used during the school day. Smart Schools Investment Plans must demonstrate that sufficient infrastructure that meets the Federal Communications Commission's 100 Mbps per 1,000 students standard currently exists in the buildings where new devices will be deployed, or is a planned use of a portion of Smart Schools Bond Act funds, or is under development through another funding source.

Smart Schools Bond Act funds used for technology infrastructure or classroom technology investments must increase the number of school buildings that meet or exceed the minimum speed standard of 100 Mbps per 1,000 students and staff within 12 months. This standard may be met on either a contracted 24/7 firm service or a "burstable" capability. If the standard is met under the burstable criteria, it must be:

1. Specifically codified in a service contract with a provider, and
2. Guaranteed to be available to all students and devices as needed, particularly during periods of high demand, such as computer-based testing (CBT) periods.

Please describe how your district already meets or is planning to meet this standard within 12 months of plan submission.

As a precondition to utilizing the SSBA allocations, each District has ensured that there is adequate Internet bandwidth (equal to or exceeding 100 Mbps per 1000 students) to sustain computer-based initiatives. The District's current internet bandwidth meets the SSBA requirements. The District has recently worked with Time Warner Cable to increase District bandwidth to required levels. Time Warner Cable has completed the construction of the fiber optic cables and equipment to the District. The District technology staff moved to the new connection in February 2017

- 1a. **If a district believes that it will be impossible to meet this standard within 12 months, it may apply for a waiver of this requirement, as described on the Smart Schools website. The waiver must be filed and approved by SED prior to submitting this survey.**

☐ By checking this box, you are certifying that the school district has an approved waiver of this requirement on file with the New York State Education Department.

2. **Connectivity Speed Calculator (Required)**

	Number of Students	Multiply by 100 Kbps	Divide by 1000 to Convert to Required Speed in Mb	Current Speed in Mb	Expected Speed to be Attained Within 12 Months	Expected Date When Required Speed Will be Met
Calculated Speed	959	95,900	95.9	100	100	Currently Met

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_ FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

3. **If the district wishes to have students and staff access the Internet from wireless devices within the school building, or in close proximity to it, it must first ensure that it has a robust Wi-Fi network in place that has sufficient bandwidth to meet user demand.**

Please describe how you have quantified this demand and how you plan to meet this demand.

With the ever-increasing demand for network resources, the HVCSD has several wiring closets unable to support additional network connectivity. These network connectivity demands include additional computers, Chromebooks, copiers, digital signage, IP cameras, iPads, Smart TVs, VoIP phones and gateways, as well as wireless access points. To meet these demands, additional Hewlett Packard switches and hardware are required to provide additional ports; a list is provided below. The current Hewlett Packard network solution provides Hoosic Valley with a robust data & voice PoE network, comprised of stackable switches, a 10GB fiber backbone and 1GB speeds to the desktop and other endpoints. Since its implementation, Hoosic Valley has purchased 240 Chromebooks, 90 Cisco IP phones, 90 iPads, 50 Wireless Access Points and several Smart TVs.

To take full advantage of any potential Smart Schools Bond Act funding for classroom technology, Hoosic Valley upgraded the existing 1GB, campus fiber backbone, with a 10GB, hybrid fiber cable in 2014-2015. This hybrid fiber cable is currently supporting a 10GB backbone and can support speeds of 40GB and 100GB in the future. As part of this network upgrade, Hoosic Valley replaced the outdated Cisco data network with a more affordable Hewlett Packard solution. In 2015-2016, Hoosic Valley completely upgraded the Cisco VoIP infrastructure including call managers, unity, gateways, routers, and IP phones. In order to meet the increased need for online access and to meet the bandwidth requirements for the SSBA, the District plans to purchase eight network server switches to add to existing equipment. Additionally, the original wireless access switches that support the District's current wireless network at the Elementary School will be replaced with 40 new Aruba wireless access point switches which will be capable of supporting higher throughput and will have PoE functionality.

4. All New York State public school districts are required to complete and submit an Instructional Technology Plan survey to the New York State Education Department in compliance with Section 753 of the Education Law and per Part 100.12 of the Commissioner's Regulations.

Districts that include educational technology purchases as part of their Smart Schools Investment Plan must have a submitted and approved Instructional Technology Plan survey on file with the New York State Education Department.

☒ By checking this box, you are certifying that the school district has an approved Instructional Technology Plan survey on file with the New York State Education Department.

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

5. **Describe the devices you intend to purchase and their compatibility with existing or planned platforms or systems. Specifically address the adequacy of each facility's electrical, HVAC and other infrastructure necessary to install and support the operation of the planned technology.**

The District plans to increase the number of wireless devices in several areas. To support the District's ongoing one-to-one device initiative for students, the District has developed the implementation of Chromebooks as an instructional tool for grades 3 to 12 and iPads as an instructional tool for Kindergarten through 2nd grade. The District plans to purchase Dell Chromebook 11 3189 Education 2 in 1 (or the equivalent model) Chromebooks with touch screen capability. These units will have 4 GB of RAM and 32 GB solid state hard drives. They will support the AC wireless standard and have 11.6" screens. They will be purchased with the Chrome OS Management license so that they can be added to the District's existing G Suite for Education domain (Google Apps for Education (GAFE)). They will be purchased with a secure cart per 30 devices for storage and charging to ensure the units are well protected. Additional cart as described will be purchased for logistical charging. The District is planning on purchasing the Apple iPad Air 2 Wi-Fi tablet (or the equivalent model). The District will be able to manage the devices utilizing the District's existing Cisco Meraki management system. These devices will have a 64 GB hard drive and a 9.7" screen. These devices will also be purchased with a secure cart per 30 devices for storage and charging to ensure the units are well protected.

Elementary School Instructional Technology Student Devices At the Elementary School, wireless devices will be purchased to increase student accessibility to web-based resources. A total of 200 Chromebooks will be purchased to support the one-to-one Chromebook initiative for 3rd to 6th grade. The specifications for these devices are the same as the Chromebooks listed above. The total of 200 Chromebooks is made up of 6 sets of 30 Chromebooks with an additional 20 total Chromebooks being purchased to accommodate replacements for repairs when needed. One set of these Chromebooks will be utilized by the Elementary Library. A total of 9 secure Chromebook carts will be purchased. In addition to the 6 sets of Chromebooks, three additional secure carts will be purchased for storage and logistical charging of these Chromebook devices in additional classrooms. To increase the primary students' accessibility to technology applications and web-based resources, an additional 200 Apple iPad devices (or the equivalent model) will be purchased for the Elementary primary classrooms. The devices will be utilized by Kindergarten through 2nd grade classrooms, the Music Education classroom, and the Art Education classroom. The District is planning on purchasing the Apple iPad Air 2 Wi-Fi tablet. The device specifications are the same as the iPads listed above. They will have a 64 GB hard drive and a 9.7" screen. Each device will be kept in a high-impact case. A total of 10 secure iPad carts will be purchased. In addition to the 6 sets of iPads, 4 additional secure carts will be purchased for storage and logistical charging of these iPad devices in additional classrooms.

High School Instructional Technology Student Devices For the High School, 11 sets of 30 Chromebooks will be purchased to supplement the number of already existing Chromebooks available in the High School for grades 7 to 12. The specifications for these devices are the same as the Chromebooks listed above. Secure carts will be available for storage of these devices in the homeroom classrooms. The carts will be available to all teachers, but will be maintained daily in the homeroom classroom. A total of 15 secure Chromebook carts will be purchased for the High School. In addition to the 11 sets of Chromebooks, 4 additional secure carts will be purchased for storage and logistical charging of these Chromebook devices in additional homeroom classrooms. To support the curriculum within the High School Music and Art classrooms the District plans to purchase a total of 120 Apple iPad devices. The District is planning on purchasing the Apple iPad Air 2 Wi-Fi tablet (or the equivalent model). The device specifications are the same as the iPads listed above. They will have a 64 GB hard drive and a 9.7" screen. Each device will be kept in a high-impact case. A total of 4 secure iPad carts will be purchased (2 for the Music Classrooms & 2 for the Art Classrooms).

Teacher Devices & Classroom Illumination Displays To support student learning activities, the District plans to upgrade the teachers' desktop computers and presentation illumination devices in the classrooms. The support staff computers will also be updated. The District plans to purchase 118 Dell All in One Inspiron 24 7000 Series. The units will have 6th generation Intel core i5 processor, 8 GB memory, and 1TB hard drive. The district also plans to purchase Vizio D-Series 50 inch LED

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER**Classroom Learning Technology**

Page Last Modified: 02/27/2019

LCD Smart TVs and Vizio E-Series 70 inch LED HD SmartCast TVs to be used as illumination monitors for teacher and student classroom presentation needs. With the monitors will be the purchase of a bracket, HDMI cables, and casting devices. At the High School a total of 41 Vizio 70 inch monitors and 4 Vizio 50 inch monitors will purchased and installed by the district staff in classrooms including the Art, Music, Library, and Cafeteria. A total of 21 Vizio 70 inch monitors and 5 Vizio 50 inch monitors will be purchased and installed for Elementary classrooms including the Art, Music, Library, and Cafeteria. The District will also purchase additional Chromebook touch devices for teachers to cast information while conducting instruction moving around the classroom. The District plans to purchase 80 additional Dell Chromebook 11 3189 Education 2 in 1(or the equivalent model) Chromebooks with touch screen capability (or an equivalent model device with stylus capabilities) . These units will be consistent with the student devices and have 4 GB of RAM and 32 GB solid state hard drives. They will support the AC wireless standard and have 11.6" screens. They will be purchased with the Chrome OS Management license so that they can be added to the District's existing G Suite for Education domain (Google Apps for Education (GAFE))

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

6. Describe how the proposed technology purchases will:
- > enhance differentiated instruction;
 - > expand student learning inside and outside the classroom;
 - > benefit students with disabilities and English language learners; and
 - > contribute to the reduction of other learning gaps that have been identified within the district.

The expectation is that districts will place a priority on addressing the needs of students who struggle to succeed in a rigorous curriculum. Responses in this section should specifically address this concern and align with the district's Instructional Technology Plan (in particular Question 2 of E. Curriculum and Instruction: "Does the district's instructional technology plan address the needs of students with disabilities to ensure equitable access to instruction, materials and assessments?" and Question 3 of the same section: "Does the district's instructional technology plan address the provision of assistive technology specifically for students with disabilities to ensure access to and participation in the general curriculum?")

The Hoosic Valley Central School district provides a comprehensive consistent and complete technology integration that prepares students to effectively participate in the 21st century and graduate college and be career ready. Emphasis is placed on developing technology skills and competence as well as teaching students to use these skills ethically, responsibly and efficiently. Our district technology plan adheres to the current ISTE standards. These standards guide students through opportunities using technology to develop skills that encourage personal productivity, creativity, critical thinking and collaboration in the classroom and in their daily lives. In addition to these skills students will be proficient researching information relative to their current units of study. As a result students will be knowledgeable with current programs, operational systems and applications. According to Butzin, researchers running a program called Project Child (Computers Helping Instruction and Learning Development) showed that students in K-5 classrooms that had ready to use technology for instruction consistently had "higher test scores and better discipline than their counterparts" (Butzin, 2000, p.3). Having technology on hand in the classroom will provide teachers the opportunity for active engagement and real world connections to set a meaningful purpose for learning.

- The implementation of these instructional devices in the classroom will help teachers meet the individual needs of their students through differentiated instruction. Specifically, students will have the ability to display their learning through many different platforms with the help of the instructional tools available on both the chromebooks and Ipads. Additionally teachers will be able to access resources such as ELAnews to help meet our struggling readers where they are without missing the important content that is being taught in the classroom. For example, all of our students can be learning about the american revolution but with the implementation of instructional devices, teachers will be able to assign readings based on the individuals students' level.
- The ability to access the Google suite of apps will allow teachers to take the learning outside the classroom. The ability to use google hangout will allow students to collaborate with each other outside of the classroom and the school building. The teachers ability to use google classroom will help bring the learning to students no matter where they are. The ability for students to access classroom materials, research outside of the building, and collaborate with their peers will help transform our school into a 21st century learning institution.
- The Hoosic Valley CSD's Technology Plan addresses Students with Disabilities (SWD) access to instruction, materials, and assessments by outlining specific procedures to guide faculty and staff to assess SWD needs. Individual student assessments guide instructional decisions for SWD's needs for technology to ensure access to the general education curriculum. In the Technology Plan the goal is for SWD have equitable access, Kindergarten through twelfth grade, to experience technology and digital resources in their educational environment. This is accomplished through implementing universal design for Learning, which is a set of principles

for curriculum development that provide all students equal opportunities to learn. The Technology Plan addresses instructional goals, methods, materials, and assessments for all students to have equitable access to technology education. Hoosic Valley supports and enhances learning through evidence based research utilizing individuals with expertise in this technology research. The evidence based research will focus on the use, effectiveness and implementation fidelity of the technology tool. This will include professional development to ensure the benefits, utilization, application, and function of the technology. Ultimately, the goal will be to reduce barriers, as well as optimize levels of challenge and support, to meet the needs of all learners.

- With the implementation of the planned purchase of instructional devices (Ipads & Chromebooks) with the SMART Schools allocation the district will be able to develop a one to one device environment. The one to one device initiative will address student engagement among learners. This will help to contribute to the reduction of other learning gaps that have been identified within the district based on assessments of male learners. Utilizing devices to enhance instruction will allow for "choice" of student learning strategies and practices for all learners. Specifically research show that "choice" within the instructional setting has a strong impact on engagement of male students. The additional smart school instructional devices will enhance instruction providing more opportunities for student engagement which in turn will contribute to improve assessment performance.

7. **Where appropriate, describe how the proposed technology purchases will enhance ongoing communication with parents and other stakeholders and help the district facilitate technology-based regional partnerships, including distance learning and other efforts.**

The proposed technology purchases of Ipads and Chromebook devices will enhance ongoing communication with parents and stakeholders. The one to one initiative will provide teachers with the consistent accessibility of computer devices to utilize on line learning platforms such as Google Classroom for student and parent collaboration. Utilizing Google Classroom teachers can provide continually communication on class objectives, assignments, schedules of exams, and remediation resources. Teachers will also be able to utilize the devices to complete class assessments on line. On line assessments will allow for real time data analysis to drive teacher instruction and conversations with parents on student development. The utilization of the proposed devices will allow the district to facilitate technology-based regional partnerships with the Hoosic Valley School Community and the surrounding area schools. The district will work with the BOCES model schools improvement services to collaborate best practices with local area schools.

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

8. Describe the district's plan to provide professional development to ensure that administrators, teachers and staff can employ the technology purchased to enhance instruction successfully.

Note: This response should be aligned and expanded upon in accordance with your district's response to Question 1 of F. Professional Development of your Instructional Technology Plan: "Please provide a summary of professional development offered to teachers and staff, for the time period covered by this plan, to support technology to enhance teaching and learning. Please include topics, audience and method of delivery within your summary."

The District recognizes the need to provide targeted, rigorous, and sustained professional development for staff and students to effectively support technology. In order to support the use of technology in the District, including the projects outlined in the SSBA plan, the District contracts with Questar BOCES to provide a technology staff developer who works with teachers and students to assist with effective technology integration. The technology staff developer is provided through the Questar BOCES Model Schools Coter. The technology staff developer provides a variety of professional development opportunities including one-on-one sessions with teachers on use of technology in the classroom as well as group trainings on Chromebook use as well as online resources. For the Chromebook & iPad initiative, teachers of students who will be receiving Chromebooks or iPads through the Smart Schools Investment Plan will receive ongoing staff development provided by Questar Model Schools prior to their students receiving devices. Training has been and will continue to be offered through embedded staff development, afterschool Wednesday Workshops, and additional professional development days in the 2017-18 school year. These training sessions will continue on through subsequent years to help support teachers in the use of these devices in the classroom.

9. Districts must contact the SUNY/CUNY teacher preparation program that supplies the largest number of the district's new teachers to request advice on innovative uses and best practices at the intersection of pedagogy and educational technology.

☒ By checking this box, you certify that you have contacted the SUNY/CUNY teacher preparation program that supplies the largest number of your new teachers to request advice on these issues.

- 9a. Please enter the name of the SUNY or CUNY Institution that you contacted.

University at Albany SUNY

- 9b. Enter the primary Institution phone number.

5184424988

- 9c. Enter the name of the contact person with whom you consulted and/or will be collaborating with on innovative uses of technology and best practices.

Dr. Robert BangertDrowns, Dean of Teacher Preparation Program

10. A district whose Smart Schools Investment Plan proposes the purchase of technology devices and other hardware must account for nonpublic schools in the district.

Are there nonpublic schools within your school district?

☐ Yes

☒ No

11. Nonpublic Classroom Technology Loan Calculator

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

eligible to be reimbursed through the SSBA. If you have any questions, please contact us directly through smartschools@nysed.gov.

Please specify in the "Item to be Purchased" field which specific expenditures and items are planned to meet the district's nonpublic loan requirement, if applicable.

NOTE: Wireless Access Points that will be loaned/purchased for nonpublic schools should ONLY be included in this category, not under School Connectivity, where public school districts would list them.

Add rows under each sub-category for additional items, as needed.

Select the allowable expenditure type. Repeat to add another item under each type.	Item to be Purchased	Quantity	Cost per Item	Total Cost
Desktop Computers	Dell All in One Inspiron 24 7000 Series	118	561	66,198
Laptop Computers	Dell Chromebook 11 3189 Education 2 in 1	610	273	166,530
Tablet Computers	Apple iPad Air 2 Wi-Fi tablet	320	484	154,880
Other Costs	Vizio E-Series 70 inch LED HD SmartCast TVs	62	1,260	78,120
Other Costs	Vizio D-Series 50 inch LED LCD Smart TVs	9	671	6,039
Other Costs	Chrome Charging/ Storage Carts	24	2,000	48,000
Other Costs	Ipad Charging/ Storage Carts	14	400	5,600

Budget 66,198
Desk top
65,469
729

166,530
Laptops
129,485
22,086
9,285
5,674

154,880
Tablets
28,314
34,953

thinkpads
not
subm. 'ted

91,613

#3
65,469
129,485
22086
28,314
+63,

surface pro's not submitted

305,300 -

10,810⁵⁰ - surface pro supplies - covers/pens/warranty,
4,897⁰⁰ USB Adapters Lenova - over budget
pending claim

Smart Schools Investment Plan - 2016-17 Version (Original) - HoosicValleyCSD_FirstSubmission_#1ER

Classroom Learning Technology

Page Last Modified: 02/27/2019

The Smart Schools Bond Act provides that any Classroom Learning Technology purchases made using Smart Schools funds shall be lent, upon request, to nonpublic schools in the district. However, no school district shall be required to loan technology in amounts greater than the total obtained and spent on technology pursuant to the Smart Schools Bond Act and the value of such loan may not exceed the total of \$250 multiplied by the nonpublic school enrollment in the base year at the time of enactment.

See:

http://www.p12.nysed.gov/mgtserv/smart_schools/docs/Smart_Schools_Bond_Act_Guidance_04.27.15_Final.pdf.

	1. Classroom Technology Sub-allocation	2. Public Enrollment (2014-15)	3. Nonpublic Enrollment (2014-15)	4. Sum of Public and Nonpublic Enrollment	5. Total Per Pupil Sub-allocation	6. Total Nonpublic Loan Amount
Calculated Nonpublic Loan Amount	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)	(No Response)

12. To ensure the sustainability of technology purchases made with Smart Schools funds, districts must demonstrate a long-term plan to maintain and replace technology purchases supported by Smart Schools Bond Act funds. This sustainability plan shall demonstrate a district's capacity to support recurring costs of use that are ineligible for Smart Schools Bond Act funding such as device maintenance, technical support, Internet and wireless fees, maintenance of hotspots, staff professional development, building maintenance and the replacement of incidental items. Further, such a sustainability plan shall include a long-term plan for the replacement of purchased devices and equipment at the end of their useful life with other funding sources.

☒ By checking this box, you certify that the district has a sustainability plan as described above.

13. Districts must ensure that devices purchased with Smart Schools Bond funds will be distributed, prepared for use, maintained and supported appropriately. Districts must maintain detailed device inventories in accordance with generally accepted accounting principles.

☒ By checking this box, you certify that the district has a distribution and inventory management plan and system in place.

14. If you are submitting an allocation for Classroom Learning Technology complete this table.

Note that the calculated Total at the bottom of the table must equal the Total allocation for this category that you entered in the SSIP Overview overall budget.

	Sub-Allocation
Interactive Whiteboards	(No Response)
Computer Servers	(No Response)
Desktop Computers	66,198
Laptop Computers	166,530
Tablet Computers	154,880
Other Costs	137,759
Totals:	525,367

15. Please detail the type, quantity, per unit cost and total cost of the eligible items under each sub-category. This is especially important for any expenditures listed under the "Other" category. All expenditures must be capital-bond