

**SMART SCHOOLS BOND ACT**  
**Final Investment Plan**

**2016-2017**

*Hoosic Valley Central  
School District*

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## **PLAN OVERVIEW**

In November of 2014, New York State voters approved the Smart School Bond Act (SSBA). The Hoosic Valley Central School District was allocated \$967,472.00 as part of this act. After reviewing the District's needs, it was determined that these funds would be used to replace some of the District's outdated networking components as well as purchase wireless devices to enhance classroom learning.

## **PRECONDITIONS**

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 does not meet 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 has moved to the new connection in February 2017.

## **PLAN GOALS**

The goals for the SSBA allocation closely align to the District's 2016-2019 Technology Plan. The Technology Plan goals include:

- Increase the accessibility of computers for students by moving to a one-to-one device program to support student learning initiatives.
- Update teacher computers and classroom presentation illumination monitors and devices.
- Update support staff computers.
- Establish and maintain network infrastructure to support the demands of current use.
- Review new technologies that will assist the move to student-centered learning.

The SSBA allocation will specifically focus on

- Expanding the one-to-one Chromebook initiative by purchasing Chromebooks for 7<sup>th</sup> to 12<sup>th</sup> grade students.
- Increase computer accessibility by purchasing Chromebooks for the 3<sup>rd</sup> to 6<sup>th</sup> grade students.
- Providing iPads for all kindergarten to 2<sup>nd</sup> grade classrooms.
- Updating teacher classroom computers and classroom presentation illumination monitors and devices.
- Updating the network servers and switches.

## PURCHASE PLAN AND ALLOCATIONS

In alignment with the approved 2016-2019 District Technology Plan, the District plans to utilize SSBA allocations as described below in Table 1 for the SSBA allowable expenditure Budget Category areas.

**Table 1. Summary of Allowable SSBA Expenditures**

<b>SSBA Budget Category</b>	<b>Allocations</b>
School Connectivity	\$90,200
Classroom Technology	\$391,105
<b>TOTAL</b>	<b>\$481,305</b>

### **School Connectivity**

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 TV's, 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 TV's.

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

So that Hoosic Valley could take full advantage of any potential Smart School 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 switches that support the District's network will be replaced with newer switches which will be capable of supporting higher throughput and will have PoE functionality.

**Table 2. School Connectivity Sub-Allocation**

<b>SSBA Connectivity Projects for Schools</b>	<b>Sub-Allocations</b>
Network/Access Costs	\$0
Outside Plant Costs	\$0
School Internal Connections and Components	\$90,200
Professional Services	\$0
Testing	\$0
Other Upfront Costs	\$0
Other Costs	\$0
<b>TOTAL</b>	<b>\$90,200</b>

### Classroom Technology

The District plans to increase the number of wireless devices in several areas.

To support the ongoing one-to-one Chromebook initiative, the District plans to purchase Dell Chromebook 11 (or the equivalent model) Chromebooks. These units will have 4 GB of RAM and 16 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 Google Apps for Education (GAFE) domain. They will be purchased with a secure cart per 30 devices for storage and charging to ensure the units are well protected.

At the elementary school, wireless devices will be purchased to increase student accessibility to web-based resources. Five sets of Chromebooks will be purchased for 3<sup>rd</sup> to 6<sup>th</sup> grade teams. The specifications for these devices are the same as the Chromebooks listed above. In addition to the set nine secure carts will be available for storage of these devices in the classrooms. An additional 107 iPads will also be purchased for Kindergarten through 2<sup>nd</sup> grade classrooms. The District is planning on purchasing the Apple iPad Air 2 Wi-Fi tablet. These devices will have a 64 GB hard drive and a 9.7" screen. Each device will be kept in a high-impact case.

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<sup>th</sup> to 12<sup>th</sup>. 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.

To support student learning activities the district plans to upgrade the teacher's 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 I 5 processor, 8 GB memory, and 1TB hard drive. The district also plans to purchase Vizio D-Series 50 inch LED 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 for 29 Vizio 70 inch monitors and 6 Vizio 50 inch monitors will purchased and installed by the district staff in 35 classrooms. A total of 21 Vizio 70 inch monitors and 2 Vizio 50 inch monitors will be purchased and installed for 23 Elementary classrooms. The district will also purchase tablet devices for teachers to cast information while conducting instruction moving around the classroom. The district plans to purchase 66 Samsung Galaxy Tab A (2016) - tablet - Android 6.0. These devices will have 16 GB hard drive with a 10.1" screen.

**Table 3. Classroom Technology Sub-Allocation**

<b>SSBA Classroom Technology for Schools</b>	<b>Sub-Allocations</b>
Interactive Whiteboards/ Classroom Monitors	\$68,368
Computer Servers	\$0
Desktop Computers	\$66,198
Laptop Computers	\$172,450
Tablet Computers	\$84,089
Other Costs/	\$0
<b>TOTAL</b>	<b>\$391,105</b>

## **PROFESSIONAL DEVELOPMENT**

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 Coser. 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 initiative, teachers of students who will be receiving Chromebooks in the following year receive a year's worth of training workshops prior to their students receiving devices. These training sessions continue on through subsequent years to help support teachers in the use of these devices in the classroom.

## **SUSTAINABILITY**

The District is committed to the expansion of use of mobile devices in the classroom, particularly in the area of Chromebook use at the middle school and high school levels. Money has been allocated in the technology budget for the past two years for the purchase of computer devices. The District made a commitment this year to continue allocating money in the budget to continue to support this initiative over the next several years. The District is also committed to integrating the mobile devices purchased into the regular equipment upkeep/replacement cycle.

## **PROVISIONING AND DISTRIBUTION TIMELINE**

Once the Investment Plan is approved by the State, equipment will be purchased in accord with the District's purchasing policies. Once equipment arrives, the IT staff will prioritize the unboxing, inventorying and provisioning of the equipment. Based on the proposed quantities, equipment should be in place and operational within 30 days of its arrival. The implement the 30 day operational time line equipment will be purchased in phases to assist the district's Technology staff.

The district will include this new equipment in its existing inventory database and monitor it to ensure equipment is securely maintained in its designated locations. The District's comprehensive asset insurance policy will be updated to reflect the additional equipment as well.

