Student Devices

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Smart School Bond

- Voter approved in November 2014
- Provided $2 billion dollars to NYS schools for technology upgrades
- Allocated $3.2 million to the SCHSD
- Priority areas:
  - Pre-K
  - Technology infrastructure
  - Security upgrades
  - Student access to technology
SCHSD Smart Bond Committee

- Broad representation of stakeholders
- Met throughout fall 2015
- Researched through:
  - National, state, and regional research, reports, white papers
  - Site visits
  - Surveys
- Conducted a Decision Analysis in January 2016
- Recommended a 1:1 implementation to the BOE as the option to:
  - Best address equity of resources across the district
  - Best bridge the home-school resource gap
  - Provide the most consistent platform for instruction and tech support
  - Best positions students to be competitive in the 21st century higher education and work world
Smart Schools Bond Investment Plan

• Proposed to the BOE at January 2016 meeting
• Posted on District website for 30 day public comment period
• Approved by the BOE at February 2016 meeting
• Goals of the implementation:
  • Individualized learning
  • Digital literacy
  • Engagement through access to relevant, rich, learning resources
  • Student ownership of learning
Student Device Selection Process

- Feedback was sought from stakeholders about criteria for device selection:
  - Principals meetings
  - Coordinators meetings
  - 7th and 8th Grade Interdisciplinary Team meetings
  - Department meetings
  - Student meetings
  - Central Council Liaison meetings
  - Smart Bond and Technology Committee meetings

- District and Building leadership conducted a Decision Analysis based on:
  - Executive briefings
  - Site visits
  - Presentations at February 2016 Tech Expo
  - Feedback from students, parents, teachers, supervisors, Administrators, and elementary component staff at February Tech Expo
Results

- Apple devices clearly scored the highest as the best fit for our criteria.

- Criteria:
  - Most dependable and reliable device
  - Easiest learning curve for students and teachers
  - Most aligned training and professional development services
  - Best aligned with elementary components
## Decision Analysis Results

<table>
<thead>
<tr>
<th></th>
<th>Weight</th>
<th>Apple</th>
<th>Google/Chrome</th>
<th>Microsoft</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Total</strong></td>
<td>41334</td>
<td>30476</td>
<td>19036</td>
<td></td>
</tr>
<tr>
<td>Has the most stable, dependable operating system</td>
<td>10</td>
<td>4910</td>
<td>2260</td>
<td>890</td>
</tr>
<tr>
<td>Has the fastest boot time</td>
<td>3</td>
<td>804</td>
<td>936</td>
<td>333</td>
</tr>
<tr>
<td>Is the least likely to get bogged down with frequent or untimely updates</td>
<td>8</td>
<td>2472</td>
<td>2368</td>
<td>648</td>
</tr>
<tr>
<td>Is the least vulnerable to viruses</td>
<td>10</td>
<td>3280</td>
<td>2710</td>
<td>830</td>
</tr>
<tr>
<td>Is the most durable for student use</td>
<td>10</td>
<td>1810</td>
<td>2140</td>
<td>2030</td>
</tr>
<tr>
<td>Has the quickest turnaround time on repairs/replacements</td>
<td>8</td>
<td>2296</td>
<td>1800</td>
<td>848</td>
</tr>
<tr>
<td>Has the most reliable connectivity to the wireless network and blue tooth devices</td>
<td>5</td>
<td>1145</td>
<td>735</td>
<td>460</td>
</tr>
<tr>
<td>Has the most work capacity OFF line (for students without internet access)</td>
<td>10</td>
<td>2070</td>
<td>2259</td>
<td>1404</td>
</tr>
<tr>
<td>Can most easily be supported by a small IT staff (e.g. low breakage, many management tasks can be handled remotely by the IT staff)</td>
<td>10</td>
<td>2270</td>
<td>2710</td>
<td>1050</td>
</tr>
<tr>
<td>Works the best with other district hardware-Smartboards, probes, TVs, etc.</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Works the best with other district software-Outlook, eSchool, Schoology, Schoolwires, NYlearns, Naviance, Read 180, Destiny, techbooks, OASYS, MLP, Castle Learning, Comic Life, Auto Cad, Auto Desk, Sketch up</td>
<td>10</td>
<td>0</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Works the best with Microsoft Office applications-Word, Excel, Power Point</td>
<td>7</td>
<td>938</td>
<td>1001</td>
<td>1981</td>
</tr>
<tr>
<td>Has the smallest learning curve for staff and students</td>
<td>10</td>
<td>2980</td>
<td>1770</td>
<td>1550</td>
</tr>
<tr>
<td>Is the easiest for teachers to trouble shoot</td>
<td>10</td>
<td>2540</td>
<td>2080</td>
<td>1040</td>
</tr>
<tr>
<td>Comes with the most aligned professional development and planning partners</td>
<td>10</td>
<td>3450</td>
<td>2300</td>
<td>1370</td>
</tr>
<tr>
<td>Comes with best support and device training from vendor</td>
<td>10</td>
<td>3040</td>
<td>1420</td>
<td>1260</td>
</tr>
<tr>
<td>Has the most capacity to save files to the device</td>
<td>2</td>
<td>376</td>
<td>308</td>
<td>560</td>
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<tr>
<td>Best enables student content creation</td>
<td>9</td>
<td>1539</td>
<td>828</td>
<td>549</td>
</tr>
<tr>
<td>Has the best adaptive capacity to meet Special Education needs</td>
<td>5</td>
<td>1380</td>
<td>715</td>
<td>435</td>
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<tr>
<td>Allows for easiest implementation of differentiated instruction (not re-creating the wheel)</td>
<td>8</td>
<td>1704</td>
<td>1016</td>
<td>768</td>
</tr>
<tr>
<td>Most transformative -allows teachers and students to easily do what they couldn’t do before</td>
<td>10</td>
<td>2330</td>
<td>1120</td>
<td>1030</td>
</tr>
</tbody>
</table>
Risks - Apple Devices

- Financial sustainability
- Total cost of ownership (app management)
- Platform shift for technology department
- Platform shift for teaching staff
- Browser compatibility w/ various software
- Shift to primarily touch screen devices for students
- Closed (proprietary) environment
- Apple has a “wow” factor
- New third party vendors needed (security, inventory, deployment)
Why iPads?

Beyond the operational benefits of security, support, battery life and value retention, iPads are the best fit for instructional integration and personalized learning.

Additional Benefits:

- Apps for Education (specifically designed for education)
- Productivity Apps
- iBooks and eBooks (to support transition to electronic text resources)
- Video Mirroring
- Ability to run 3 most common platforms
BOE Approved Smart Schools Bond Investment Plan

• Distribute Smart Schools Bond funds over 4 years ($800,000 per year)

• Roll out devices over a 3 year implementation timeline - tooling two grade levels each school year

• Layer in a lease payment strategy to build capacity for long term sustainability
In order to conduct a proof of concept analysis for iPads, the District will implement a three part pilot immediately following approval of Apple as the preferred platform for the 1:1 initiative. This pilot will assist in assessing technical capacity and early implementation of technology integration.

2016-2017 School Year-7th grade students devices are planned to be deployed first semester. A second pilot will be conducted with 8th grade teachers. 8th grade student devices are anticipated to be deployed second semester based on system readiness.

2017-2018 and 2018-2019-Phased in roll out of devices to 9th-12th grade teachers and students
Pilot Phase - Spring 2016

• **Part I - Create Model Classrooms:** Introduce iPad devices into the pilot classroom, so teachers can explore opportunities for integration and enhancement of instruction. Timeframe - April-June 2016

• **Part II - App Selection:** A District Research team will be identified to work in parallel with pilot teachers to identify a pool of quality apps that will serve as the core image to be deployed on student and teacher devices. These teachers will represent all 7th grade departments. Timeframe - April-May 2016

• **Part III - Staff Preparation:** Distribute iPad devices to all 7th grade teachers, provide professional development opportunities, share the success of the first two phases, and allow staff to take devices home over the summer to prepare for full distribution in the fall. Timeframe - June-August 2016
Phase I - Initial Implementation - 2016-2017

• Fall Semester 2016
  • Apple supported launch event and student device deployment during 7th grade orientation
  • Student training by team teachers
  • Continued student training during library orientation
  • Gradual integration of technology in 7th grade classes
  • 8th grade faculty device deployment and initial training on September 1st
  • 5 pilot classrooms established for 8th grade teachers
  • Opportunities provided for 8th grade teachers to observe 7th grade and pilot classes
  • Training and PD for both 7th and 8th grade teachers through team meetings, department meetings, faculty meetings, Productivity PD and November 4th Superintendent’s Day

• Spring Semester 2017
  • Apple supported launch event and student device deployment for 8th grade students (anticipated second semester)
  • Faculty devices deployed to 9th and 10th grade teachers (anticipated April)
  • Continue training and PD opportunities
  • Showcase model lessons and promote new apps identified in initial phase
Phase 2 - Expand Implementation - 2017-2018

- Devices will move up with students (now 8th and 9th graders)
- New devices will be deployed to 7th and 10th grade students
- Continue to provide differentiated PD activities to all faculty including sharing best practices, model classroom activities, and app specific instruction.
- Modify and adjust technology support as more users integrate resources.
- Deploy devices to 11th and 12th grade teachers (anticipated April 2018)
Phase 3 - Full Implementation- 2018-2019

- Devices will move up with students going into 8th, 9th, and 11th grade
- Devices from students going into 10th grade (on year 2 of use) will be redeployed to seniors for final year of use
- New devices will be deployed to 7th and 10th grade students.
- Continue to provide differentiated training and PD activities to all faculty including sharing best practices, model classroom activities, and app specific instruction.
The district will assess success throughout each phase of implementation using key factors including:

- Increased student and teacher time on task
- Increased student engagement
- Increased student collaboration
- Increased demonstration of student creativity
- Increased student teacher communication
- Improved digital executive function skills
- Improved student achievement
Technology Inventory Changes

• With the addition of new Apple devices, existing inventory will be reallocated and/or reduced

• Older workstations will be retired and not replaced from classrooms, offices, and some computer labs. Funds that would have been used for replacement will be reallocated to support new technology model

• Current teacher devices (MS Surfaces) will be redistributed to programs that do not currently have mobile devices:
  • Guidance Counselors and Clinicians
  • Science Research
  • Business/Academy of Finance
  • CTE Computer Networking Classes
Potential Problem Analysis

• Training
  • For technology staff
  • For teaching staff
  • For students and parents

• Tech support
  • Redefinition of staff roles and responsibilities
  • For the devices
  • For the apps

• Logistics
  • Insurance-Damage, Loss, and Theft
Financing and Sustainability

- $3.2 million Smart Bond funding offsets initial costs for 4 years
- Leasing will layer in payments over purchase periods to build financial capacity
- Apple will guarantee buyback price on devices to assist in paying off the last year of the lease agreement, which can then be rolled over into a new lease
- Projected cost of sustainability annually is estimated at $1.2 million after full implementation
- Current past and current technology budget is approximately $500,000 funded by NYSED aid
Closing the Budget Gap - Areas of Anticipated Savings/Reallocation of Funds

- Electrical costs-$40,000
- Paper reduction-$25,000
- Calculators-$10,000
- Toner-$7,500
- Printers-$20,000
- MS State assessments-$75,000
- Anti-virus software-$20,000
- Teacher plan and grade books-$2,500
- Textbooks-$175,000
- Phone lease-$160,000
- Mailings-$10,000
- Breakage between buy-back and new lease costs-$125,000
- Repurposing of MS Surface lease funds-$155,000
- Total: $825,000
Research demonstrates that consistent access to technology for learning, both within and outside the classroom, greatly expands the possibilities for teaching and learning.

The goal of any technology initiative is to prepare students for their future in a global digital world where they will be expected to use information and technology to create, examine, explore, communicate, and collaborate.

We are excited about the possibilities that this 1:1 mobile computing program will offer to our students. This technology allows us a better tool to develop 21st century skills for our students.