OVERVIEW

- Original vision for technology and stakeholder input
- What an ideal 21\textsuperscript{st} century classroom looks like
- How can we get there?
- Proposals for 2013
Central focus of the 5 year tech plan:

• Improving student achievement
• Providing greater access to technology and the Internet
• Providing technologies to engage students and enhance learning
STAKEHOLDER INPUT

That same focus has driven the work of Superintendent’s Technology Advisory Committee and all of our stakeholders:

• Cabinet members
• Department heads
• Principals
• Data and Tech Coaches
• Teachers
• Vendors
• Technology specialists
• PTO members
• Students

Common goal: to find ways to better integrate technology into instruction, and to make sure we are using it to its full potential
NEED FOR PROFESSIONAL DEVELOPMENT

Tech integration is not possible without a comprehensive plan for training and professional development

• Basic tech skills and comfort with new technologies
• Student and staff expectations
• Professional development related to incorporating technology into instruction in meaningful ways
FOCUS ON CLASSROOM ENVIRONMENT

• What are some of the obstacles students and teachers are facing in their use of technology?

• How can we make technology use more seamless, even as it is becoming more and more integral to daily instruction?

• What can we do to promote classroom settings that are technology-rich, vibrant, and interactive?
INTERACTIVITY IS NOT JUST ABOUT STATE OF THE ART EQUIPMENT

Old School

New School?
INTERACTIVITY IS NOT JUST ABOUT HIGH-TECH TOOLS

Old school

New school?
WHAT DOES THE INTERACTIVE CLASSROOM LOOK LIKE?
RECOMMENDATIONS

Guiding question in our technology planning has been:

What changes in the area of infrastructure or equipment will make this kind of learning possible?
INFRASTRUCTURE RECOMMENDATIONS

• Internet Access
• Wireless Connectivity
• Student Information System
• Mobile Device Management
INTERNET ACCESS

• 21st century students expected to be global thinkers and to make a digital imprint

• Today’s students need uninterrupted access to Internet

• Due to increase in web based apps and cloud computing we have exceeded our existing bandwidth

• Web-based testing (for MAP and PARCC) will mean even bigger drain on available bandwidth
BANDWIDTH EXPANSION

Internet Access Recommendations:

1. Increase bandwidth from 150 Mbps to 300 Mbp
2. Purchase high-end router
3. Switch Internet Services from Illinois Century Network (ICN) to Comcast

Anticipated Cost: $16,723

Funding: 2012-13 Tech Plan Budget
WIRELESS CONNECTIVITY

• 21st century students have to be active and collaborative learners

• In order to search for and share information, students need a consistent connection to the Internet

• Our wireless access points are too sparsely spaced to provide adequate connection speed

• Have experienced freezes and dropped connections at critical times
WIRELESS NETWORK ENHANCEMENT

Wireless Connectivity Recommendations:

1. Move from coverage model to density model wireless
2. Add 220 Wireless Access Points
3. Add network management system

Estimated Cost $332,000
STUDENT INFORMATION SYSTEM

- Our version of PowerSchool is out of date, and certain features are no longer supported
- The new version requires the purchase of two new servers
- Our current servers don’t meet minimum requirements
- Recommending an upgrade option that includes remote management by Pearson to handle software upgrades and off-site data backup
POWERSCHOOL SERVER UPGRADE

Student Information System Recommendations:

1. Purchase two servers required for upgrade to PowerSchool v.7
2. Use Pearson Remote Management Services to handle offsite data backup and system updates

Anticipated Cost:

$10,595 (one-time cost) for servers
$3,500 (annually) for remote management services
MOBILE DEVICE MANAGEMENT

• Currently have 780 iPads and iPods in the district
• Expect to have 1,200 mobile devices by end of this year
• Currently manage devices with a Mobile Device Management server
• Our existing Mac Mini server lacks resources to effectively manage our growing number of devices
• Need to upgrade to Mac Pro server and purchase additional licenses
MOBILE DEVICE MANAGEMENT LICENSES AND SERVER UPGRADE

Mobile Device Management Recommendations:

1. License 1,200 mobile devices with Casper Suite server for central management

2. Upgrade server from Mac-Mini to Mac Pro

Anticipated Cost:
$7,200 (annually) for licenses
6,900 (one-time cost) for server
## Infrastructure Recommendations Summary

<table>
<thead>
<tr>
<th>Area</th>
<th>Need</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Internet</td>
<td>Increased bandwidth to accommodate high usage of web-based apps</td>
<td>Switch from ICN to Comcast; Expand bandwidth to 300 Mbps</td>
</tr>
<tr>
<td>Wireless</td>
<td>Uninterrupted coverage in periods of high use</td>
<td>Move to density-model coverage</td>
</tr>
<tr>
<td>Student Information</td>
<td>Improved student information system and offsite backup</td>
<td>Server upgrade and management</td>
</tr>
<tr>
<td>Device Management</td>
<td>Effectively manage equipment while minimizing loss of instruction time</td>
<td>Upgrade Mobile Device Management Server and purchase additional licenses so can add all devices</td>
</tr>
</tbody>
</table>
EQUIPMENT RECOMMENDATIONS

• Student devices (GenEd)
• Student devices (SPED)
• Multi-media Equipment
• Interactive Capability for All Classrooms
STUDENT DEVICES

• As the use web-based programs increases, our computer labs have been overburdened.

• Teachers are have difficulty scheduling time in the labs.

• We’re recommending mobile labs of MacBook Airs to supplement the functionality of the lab computers.

• Macbook Airs have the ability to run all district software, including iLife programs, and can run both Mac and Windows platforms.
MOBILE LABS OF MACBOOK AIRS

Student Device Recommendations (Gen Ed):
One cart of 30 MacBook Airs per school (Total 300)

Anticipated Cost for 3 year lease to own option:
$94,800 (2012-13)
$283,440 (total)
STUDENT DEVICES (SPED)

• 21st century students are expected to use internet and computer resources for schoolwork
• SPED classrooms without computers since eMacs are end of life
• Because of smaller class sizes, SPED classes have less access to carts of netbooks
• MacBook Airs have built-in accessibility features not available in Windows
MACBOOK AIRS AND IPADS (SPED)

Student Device Recommendations (SPED):
350 Macbook Airs and 50 iPads to replace classroom eMacs

Anticipated Cost for 3 year lease-to-own option:
$98,550 (2012-13)
$363,984 (total)

Funding: IDEA Grant
MULTIMEDIA EQUIPMENT

• We are recommending that, moving forward, we purchase only ceiling-mounted or interactive projectors

• Standard LCD projectors are time consuming to set up and are “in the way”

• Multi-media equipment should be ready to go when students get to class and are ready to learn
TECHNOLOGY SHOULD NOT HAVE TO BE WHEELED IN ON A CART....
TECHNOLOGY SHOULDN’T TAKE TIME AND EFFORT TO SET UP
INTERACTIVE OR CEILING MOUNTED PROJECTORS

Multimedia Equipment Recommendations:

Purchase interactive projectors or ceiling mount existing projectors as needed

Anticipated Cost up to $68,000

Funding: 2012-13 Tech Plan
INTERACTIVE CAPABILITY

- Goal of original tech plan to have SMART board and Elmo in every classroom by 2019
- Now possible to achieve the same capabilities using an iPad with a document camera stand and Apple TV
TEACHERS SHOULD NOT BE TETHERED TO THEIR EQUIPMENT
IPADS WITH DOCUMENT CAMERA STANDS AND APPLE TVS

Interactive Capability Recommendation:

Provide iPad with document camera stand and Apple TV (and or Airserver application) as new minimum configuration for all Pre-K-8 classrooms

Anticipated Cost: $183,000
## Equipment Recommendations Summary

<table>
<thead>
<tr>
<th>Area</th>
<th>Need</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Devices (GenEd)</td>
<td>Computers to extend functionality of labs</td>
<td>One cart of MacBook Airs per building</td>
</tr>
<tr>
<td>Student Devices (SPED)</td>
<td>Computers to replace classroom eMacs</td>
<td>Mobile labs of Macbook Airs (350) plus 50 iPads</td>
</tr>
<tr>
<td>Multi-media Devices</td>
<td>Ceiling mounted or interactive</td>
<td>Purchase ceiling mounted and interactive projectors for targeted classrooms to attain one projector per classroom</td>
</tr>
<tr>
<td>Interactivity</td>
<td>Interactive capability in every classroom</td>
<td>iPads with document camera stands and Apple TV in every classroom</td>
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</table>
# Training and Staff Development

<table>
<thead>
<tr>
<th>Area</th>
<th>Need</th>
<th>Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic Tech Trainings</td>
<td>Need to increase teacher, TA’s and administrator comfort level with tech</td>
<td>Self-assessment survey for staff; drop in sessions; hands on trainings</td>
</tr>
<tr>
<td>Staff Development related to instruction</td>
<td>Ongoing PD opportunities</td>
<td>Allow time for teachers during school day; small group sessions with data coaches, after school and summer workshops; U97</td>
</tr>
<tr>
<td>Teacher Resources</td>
<td>Resources for self-directed learning</td>
<td>Guidelines for Web 2.0 apps; video how-to’s</td>
</tr>
<tr>
<td>Resources for parents</td>
<td>As the use of technology for homework increases, parents may need help</td>
<td>Development of tech department web page; tech workshops for parents</td>
</tr>
</tbody>
</table>
SUMMARY

Our goal for technology is to create classroom environments that are:

- Flexible
- Engaging
- Media-Rich
- Student-Centered
- Interactive

We think the proposals presented here tonight (along with a plan for comprehensive and ongoing professional development opportunities for teachers) will help make possible the shift in learning our stakeholders have collectively envisioned.
DISCUSSION OR QUESTIONS
## Infrastructure Recommendations

<table>
<thead>
<tr>
<th>Project</th>
<th>Cost</th>
<th>Funding Mechanism</th>
<th>Completion Date</th>
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</thead>
<tbody>
<tr>
<td>Bandwidth Expansion</td>
<td>$16,723</td>
<td>2012-13 Tech Plan Budget</td>
<td>June 1, 2013</td>
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<tr>
<td>PowerSchool Server Upgrade</td>
<td>$10,595</td>
<td>Referendum Vision</td>
<td>April 1, 2013</td>
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<tr>
<td>PowerSchool Management Services</td>
<td>$3,500 (annually)</td>
<td>Referendum Vision</td>
<td>April 1, 2013</td>
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<tr>
<td>Mobile Device Management Licenses</td>
<td>$7,200 (annually)</td>
<td>Referendum Vision</td>
<td>Ongoing</td>
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<td>Mobile Device Management Server</td>
<td>$6,900</td>
<td>Referendum Vision</td>
<td>March 1, 2013</td>
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<td><strong>Total</strong></td>
<td><strong>$376,210</strong></td>
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## Equipment Recommendations

<table>
<thead>
<tr>
<th>Equipment</th>
<th>Cost</th>
<th>Funding Mechanism</th>
<th>Completion Date</th>
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<tbody>
<tr>
<td>300 MacBook Airs Gen Ed</td>
<td>$94,800 (Downpayment) $62,880 (1st lease payment 7/13) $62,880 (2nd lease payment 7/14) $62,880 (final payment 7/15)</td>
<td>Referendum Vision</td>
<td>April 1, 2013</td>
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<tr>
<td>350 MacBook Airs and 50 iPads SPED</td>
<td>$98,550 (Downpayment) $88,478 (1st lease payment 7/13) $88,478 (2nd lease payment 7/14) $88,478 (final payment 7/15)</td>
<td>IDEA Grant</td>
<td>April 1, 2013</td>
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<td>MacBook Air Repair Budget Gen Ed</td>
<td>$50,000 (beginning 2014)</td>
<td>Referendum Vision</td>
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<td>MacBook Air Repair Budget SPED (in lieu of extended Apple Care)</td>
<td>$58,000 (beginning 2014)</td>
<td>2012-13 IDEA Grant</td>
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<td>Interactive projectors (as needed)</td>
<td>$68,000 (maximum)</td>
<td>Tech Plan Budget</td>
<td>As needed to maintain one projector per classroom</td>
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<td>250 iPads w/ Apple TVs</td>
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<td>Referendum Vision</td>
<td>January 15, 2013</td>
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<tr>
<td><strong>Total 2012-13</strong></td>
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<td><strong>Total Ongoing (2013-2015)</strong></td>
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<td><strong>Total Equipment</strong></td>
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<td>Funding Mechanism</td>
<td>Total Cost (2012-13)</td>
<td>Ongoing Cost (2013-15)</td>
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<td>Tech Plan Budget</td>
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<td>Grand Totals</td>
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