

West Hartford Public School District

Agenda Item: WHPS Technology Status Update

Meeting Date: November 6th, 2013

From: Tom Moore, Assistant Superintendent for Administration
Jared Morin, Director of Information Technology Services

Through: Karen L. List, Superintendent of Schools

Background:

Following is a matrix of both completed and currently pending technology projects for the West Hartford Public Schools. The foundation for this work is the Center for Educational Leadership and Technology (CELT) recommendations, in conjunction with the National Educational Technology Standards (NETS), district technology leadership, and the new TechConnect Committee.

Mr. Jared Morin, Mrs. Jeri Van Leer, Ms. Denise Jaffe, Mrs. Lindsey Roberts-Walstrom and Mr. Tom Moore will present and will be available to answer questions.

**Agenda Item:
VI.B.2.**

**WHPS Technology Status Update
Phasing & Priority Matrix Highlights
November 6th, 2013**

The West Hartford Public Schools' Technology Blueprint is a scope & sequence of recommended technology initiatives through the 2014-2015 school year. This is a living document that will be reviewed and revised on a regular basis. The list below reflects our progress as of November 2013.

<i>Recommendations:</i>	<i>Current Status</i>
<p>CA-1.1 Develop a Formal Scope and Sequence for Student Technology Competencies Establish and disseminate to teachers a formal scope and sequence for student technology competencies, which are integrated across all content areas and all grade levels.</p>	<p>The newly formed TechConnect committee is currently reviewing the National Education Technology Standards (NETS) for students, teachers and administrators. The NETS will serve as the framework for a WHPS technology competency scope and sequence.</p>
<p>CA-3.1 Implement a System of Electronic Student Portfolios Formulate a team of educators actively using or interested in exploring electronic student portfolios.</p>	<p>A subcommittee of the new TechConnect Committee is currently researching a more systemic system for ePortfolios. Products currently in use include Google Sites, Digication and Naviance, a college and career readiness platform.</p>
<p>LESF-1.1 Minimum Technology Learning Environments Guidelines Define, endorse, support, and advance minimum technology learning environment guidelines to ensure that all teachers and students in all schools have equal access to district technology resources.</p>	<p>A draft document will be shared with the new district level technology committee (TechConnect) for feedback in 2013-2014.</p>
<p>LESF-1.2 Instructional Technology Refresh Program Research, develop, deploy, and maintain a short and long-term instructional technology refresh program.</p>	<p>The IT Director has developed an equitable technology refresh model using a per pupil formula, current inventory data and in full collaboration with school principals. In 2012-2013 all computers for delivering instruction were targeted. In 2013-2014 we are targeting labs and devices for student use, with emphasis on leveraging our new wireless for mobile devices. Replacing technology resources proactively rather than reactively is the ultimate goal of the refresh program.</p>
<p>TLT-2.2 Engage in Online Learning Opportunities Develop and formally endorse online learning opportunities for students.</p>	<p>This will be reviewed by the new TechConnect Committee for possible recommendations in the 2013-2014 school year.</p>

<p>TLT-2.3 Update Acceptable Use Guidelines for Students and Staff Review and revise existing AUP in light of new and emerging technologies, such as Web 2.0 tools.</p>	<p>Our Administrative Guidelines for Acceptable Use of Technology have been revised to reflect current best practices and to incorporate Bring Your Own Device (BYOD). These guidelines must be acknowledged by each user as part of a registration webpage in order to access the new wireless. A new BYOD webpage has also been launched.</p>
<p>TLT-4.1 Procure a Library Management System (LMS) Research district library needs, then procure and implement the new library management system.</p>	<p>The library management system, Destiny, went live in Fall 2012. Starting in Fall 2013 we have expanded the system by adding the Asset Management Module to track district assets.</p>
<p>TLT-3.1 Differentiating Instruction for Students with Special Needs Continue to address the unique needs of students with special education needs, teachers, and schools with adaptive/assistive technology solutions as appropriate.</p>	<p>A new iPad tablet initiative started in 2012-2013 with an emphasis in elementary schools and special education needs. An Assistive Technology Specialist is working to progress monitor and further infuse technology where appropriate for students with special needs.</p>
<p>LESF-3.1 Energy Management and Lighting Controls Older schools could benefit with updated building controls to support efficient and centralized lighting as well as heating and air conditioning monitoring and controls.</p>	<p>The ITS department has begun phasing out all CRT monitors as part of the technology refresh. An aggressive server virtualization project in summer 2013 also reduced servers throughout the district, reducing the physical server inventory from 45 to 9 servers while simultaneously improving performance and available storage space. An HVAC remote management project is also currently underway between the Network Engineer and Plant Svcs.</p>
<p>ODS-1.1 Restructure the IT Department Restructure the IT Department into the Department of Communication and Technology Services (CaTS).</p>	<p>The hiring of a new Director of Information Technology Services was completed in September 2012. This is a shared Town/Board position, responsible for all aspects of IT in West Hartford. In July 2013 a second shared Town/Board position of Network Engineer was created in order to further address common infrastructure needs.</p>
<p>ODS-2.1 Build Capacity of IT Staff Identify the training that is needed for each member of the IT staff to have the proficiencies required for their position. Include provisions for cross-training and career growth.</p>	<p>Ongoing professional learning is critical for any position and IT is no exception. Over this past year, IT staff has been trained in Apple Configurator and Microsoft System Center. Consultation services have also been arranged through CREC for further PowerSchool development. ELearning opportunities from Microsoft are also utilized.</p>

<p>ODS-3.1 Reduce Dependency on Technical Support Staff Develop and implement a set of strategies for reducing the dependency on Information Technology Specialists for Technical Support.</p>	<p>A new Helpdesk Management System, ‘Schooldude’, has been implemented and its features expanded in the 2012-2013 school year to include inventory management and automated emails; each Principal now receives an automated report every Friday showing all open work-orders for their school. In an effort to help end-users help themselves, a new technology FAQ webpage was launched, as were specific webpages for iPads, Chromebooks and general resources.</p>
<p>ODS-3.2 Redefine the Role of the Library Media Specialists Update the role of library media specialists to Facilitators of Research, Information and Technology to support the integration of technology into the curriculum.</p>	<p>Beginning with the 2012-2013 school year, the library media specialists engaged in training to develop the technology skills they need to fulfill their roles as school-based technology leaders to support students and teachers, focusing on the technology skills embedded in the CCSS. The Technology Integration Facilitator and the Technology Integration Curriculum Specialist provide both whole group and individual training and support for the library media specialists. We will continue to provide this support as the district adds new and emerging technology.</p>
<p>SDHR-1.1 Technology Proficiencies for All Staff Define and assess technology proficiencies for all staff as determined by productivity and/or instructional needs.</p>	<p>The new TechConnect Committee will be reviewing these needs in conjunction with the Office of Curriculum and Instruction.</p>
<p>SDHR-3.1 District Technology Professional Development Plan Develop a technology professional development plan to ensure that staff at all levels of proficiency has the opportunity to become proficient in using and integrating technology.</p>	<p>The new TechConnect Committee will be reviewing these needs in conjunction with the Office of Curriculum and Instruction.</p>
<p>SDHR-6.1 Web-based Professional Development System Define the needs and functional requirements for an online professional development catalog, calendar, and registration system that would interface seamlessly with the HR system and the CEU tracking system.</p>	<p>Currently the district uses ProTraxx which interfaces with the Connecticut State Department of Education for certification and Continuing Education Units (CEU) tracking purposes.</p>

<p>SPMA-1.1 Technology Standards Committee Create a standards-setting process that includes representatives from all areas of the school district, most importantly from curriculum and instruction, that establishes clear technology standards requirements and criteria</p>	<p>As of fall 2013, the district has formed a new TechConnect committee. This committee is a representative group of stakeholders from all levels of the district to collaboratively and proactively plan, advise and assess technology in WHPS.</p>
<p>SPMA-2.1 Procurement Guidelines Create an Information Technology Clearinghouse to ensure that all technology requests, purchases, and donations are consistent with school/district-wide technology goals.</p>	<p>At the present time, no technology purchase, regardless of funding source, should be purchased without the IT Director reviewing and approving the requisition. We have also implemented online workflow forms to better facilitate requests for software and hardware.</p>
<p>SPMA-3.1 Maintenance Process Management Initiate a license compliance project to ensure all software in use by the school district is legal and compliant.</p>	<p>Starting in the 2012-2013 school year the district began the implementation of ITAM (IT Asset Management). This is an automated network discovery system that queries all online computers to collect both hardware and software inventory data. We will also be implementing Microsoft System Center 2012 to further empower IT staff to centrally manage and maintain the computer fleet. We also tag all computers with WHPS asset tags.</p>
<p>SPMA-4.1 Asset Management Program Develop an inventory management program. Make sure to conduct a full inventory of all technology and update the inventory management system.</p>	<p>See SPMA-3.1</p>
<p>PPS-1.1 Technology Policies and Procedures Manual Create a technology policies and procedures working group to focus on identifying necessary policies and procedures to be published to various stakeholder groups, such as internal employees, students, and the community.</p>	<p>Our district website has a new technology frequently asked questions (FAQ) section with links to policies, guidelines and procedures for staff, students and parents, inclusive of the new BYOD website. Our staff intranet (internal) site is also now available for staff documents. Lastly, the IT staff has two new secured shares for IT access only that includes licensing information, software installers and standard operating procedures for the department.</p>
<p>PPS-3.1 Disaster Recovery and Business Continuity As part of the development of the Policies and Procedures manual, a separate chapter should be developed to address the Disaster Recovery and Business Continuity.</p>	<p>A new backup/disaster recovery (BDR) system for both the Town and Schools was implemented during summer 2013. The system captures all data hourly and stores it offsite using a colocation model. Recovery of lost or missing files can now be achieved in a matter of minutes.</p>

<p>PPS-3.2 Enhance Environmental and Security Monitoring and Surveillance</p> <p>It was clear that physical access to the building was to be made via the main entrance where a controlled entry was in place. Since all other external doors should be locked, the school district should consider an electronic safety and security project whereby all external doors are controlled with an electronic access system.</p>	<p>A request for proposal (RFP) to further enhance building access controls, surveillance cameras and rapid response and alerting systems is currently being worked on in conjunction with the Plant Services Department and Purchasing.</p>
<p>DSPP-5.1 Project Management</p> <p>To manage the myriad projects currently planned and underway in WHPS, define and implement a process for project management so that all major projects can be sponsored and reviewed by a group of executive staff who can address issues when they arise.</p>	<p>The Information Technology Services (ITS) Department now uses Microsoft Project to manage all special projects. All incidental work (break/fix) is logged in our Helpdesk system and data from this system is reviewed weekly to identify areas of success and areas needing improvement. Regularly scheduled meetings for network and data management and school technicians also take place in order to proactively plan and progress monitor projects.</p>
<p>APS-3.1 Create a Student Information System Maturity Model</p> <p>The implementation of a student information system is a process rather than an event.</p>	<p>The district has partnered with CREC to audit and enhance PowerSchool, our current Student Information System. PowerSchool has the potential to do much more than it does out of the box. Starting January 2013, elementary schools are now being brought online with PowerSchool to take daily attendance and lunch counts. The Elementary Report Card will be programmed into PowerSchool next.</p>
<p>CNI-1.2 Implement a comprehensive network and end-point management solution</p> <p>Improve network support capabilities while reducing the time and effort required to maintain network devices.</p>	<p>As part of the new district wireless project, most wired connections were also enhanced and stabilized through the replacement of network switches throughout all schools. A new monitoring tool, NetSight, also empowers the Network staff to monitor and address network issues in real time.</p>
<p>CNI-2.1 Develop strategic plan to leverage fiber and co-location hosting facility.</p> <p>Develop plans to leverage the resources and harvest value from the fiber cable plant and the world-class data center the Town of West Hartford owns.</p>	<p>Currently the district is leveraging its e-rate eligibility to lease a managed fiber network to most schools. The Town owned fiber network is being used for 3 schools due to proximity. A feasibility study will be conducted to see if enough return on investment (ROI) exists to warrant building out the Town owned fiber network to the 13 remaining schools before the end of the current 5-year lease term.</p>

<p>CNI-2.2 Develop and deploy district-wide (town wide) enterprise wireless network access. West Hartford’s mobile user population is growing in the schools and throughout the community.</p>	<p>The district’s new wireless network project was completed in February 2013. All 16 schools plus Town Hall have building-wide wireless using approximately 900 managed wireless access points.</p>
<p>CNI-3.1 Refresh Network Hardware and Cable The policies regarding the LAN switches and network should be addressed.</p>	<p>All network hardware has been replaced in the schools as part of the new wired/wireless capital improvement project with lifetime warranties on most equipment.</p>
<p>MEPI-3.1 Web-based Reporting System Develop and implement a Web-based reporting system to display the ongoing progress of major school district initiatives.</p>	<p>Pending the results of our bid for a new website provider, a status board page will be built to include current infrastructure availability status, upcoming scheduled maintenance windows, and long-term projects.</p>
<p>CNI-4. Server Consolidation and Virtualization With the installation of the new WAN, initiate a server consolidation project to virtualize and centralize to the maximum extent possible the server infrastructure.</p>	<p>The district’s server infrastructure was greatly stabilized and made more efficient thanks to an aggressive domain and forest consolidation project during summer 2013. We effectively collapsed 4 domains into 1 for better interoperability and ease of management, and virtualized most servers bringing our physical server footprint down from 45 to 9 servers. All file shares were consolidated to central network area storage (NAS) arrays and most BOE servers were relocated to the Town’s world class data center to improve environmental factors.</p>
<p>District ISP Redundancy The district currently uses CEN to provide internet to all schools and school offices. Currently this is just one connection and represents a single point of failure. Redundant Internet Service Providers (ISPs) should be implemented.</p>	<p>The long-term goal is to relocate our district internet connection from Town Hall to our Town data center. The Town data center has redundant power, redundant air conditioning and Halon Fire Suppression. In the interim, CEN has brought in a redundant connection in Fall 2012 to Conard High that can serve as a backup connection, but not a true backup ISP.</p>
<p>Assessment & Curriculum Management System The district is in need of a system student assessment system, capable of delivering both state and local assessment information to teachers in a user-friendly format. Further, teachers need a system that allows them to progress monitor students using formative assessment data.</p>	<p>The district has procured a new student assessment and curriculum management system called Performance PLUS. We are in the initial implementation phase of this project, which began in summer 2013.</p>

<p>Upgrade the district's EES licensing with Microsoft The district's Enrollment for Educator Solutions license does not include all the features it should.</p>	<p>Starting September 2013, the district is now covered by the full Regional Education Service Center (RESC) Alliance EES agreement. This entitles WHPS to Windows upgrades, Office upgrades, Microsoft's e-Learning portal, and Microsoft's IT Academy for both high schools.</p>
<p>Establish a broader web-presence for the district Currently WHPS does not have an App or a mobile site.</p>	<p>The district's homepage now has a mobile site as of January 2013. An App is still under consideration. A bid for a new website provider will occur in 2014 following the eRate process.</p>
<p>IT Security Audit The district's network needs regular auditing to ensure NTFS permissions and policy based routes are functioning as intended to prevent unauthorized access.</p>	<p>This district now uses policy-based roles at the port level to prevent unauthorized traffic from the schools to Town Hall and the Town network.</p>
<p>Managed Print Solution The district needs to consolidate and network printers and leverage a managed print solution.</p>	<p>The district is now participating in a managed print solution with our copier vendor, CBS. Toner savings are estimated at 15-25%.</p>