



Shelton
School District

Technology Plan

July 1, 2013 to
June 30, 2016

Shelton School District Technology Plan 2013-2016

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Technology Vision Statement

A shared commitment to provide the most effective education to all students so they live successful lives.

We envision using technology to further the learning community where:

- Students are proficient using technology and able to discern when and how to use it.
- Teachers use technology to support and enhance their instruction and provide learning opportunities to meet each student's unique needs.
- Administrators use technology effectively to complete required functions and duties, to collaborate with other educators, and to analyze student learning.
- Support staff use technology effectively in their job and as a tool to support classroom needs and the learning environment.

To accomplish these goals the Technology Department is responsible for providing reliable and dependable resources including

- Classroom computers and other instructional equipment
- Supporting and maintaining support staff computers and equipment
- Networking Infrastructure
- Servers to handle necessary services and educational programs
- Adequately manage Internet bandwidth for learning resources
- Maintain security measures and services to:
 - Protect data
 - Prevent intrusions
 - Update computers
 - Provide cyber safe student Internet access

Compliances

- Inventory:** The district has completed the current online technology inventory and will continue to do so annually.
- CIPA Compliance:** The district has completed the current Form 479 and will continue to do so annually.

Narrative

The importance of technology solutions are understood and valued by the individual school buildings and their staff. Our individual school building plans address the teaching and learning needs and goals of their buildings. The buildings work with the Exec. Director of Teaching and Learning and the Instructional Technology Coordinator and/or Director of Technology to review possible research based solutions for the building's needs. The financial and technological resources necessary to achieve the goals are researched by the Exec. Director of Teaching and Learning and the Instructional Technology Coordinator and/or Director of Technology. Solutions are funded through a combination of curriculum adoption funds, building funds, the technology portion of the district levy, donations and grants. Building and district leaders discuss ways to implement solutions including roles and responsibilities for district and building staff at monthly district leadership meetings.

The 2013-2016 technology plan preparations were started in May of 2012. Tech staff, administrators, and classroom staff met with an independent review team from ESD 113 to conduct a review of the current use of technology in the district. A Survey was developed with input from district staff. Staff and students were surveyed before the end of the 2011-12 school year and a report was given to the district with the following main recommendations:

1. Consider retaining the position of Director of Technology and increasing the FTE in the Technology Department to provide more timely proactive and reactive support at the building level.
2. Consider re-engineering the current wireless network to provide guest wireless access and better monitoring.
3. Consider replacing the existing trouble ticket software system/database with a more user friendly and less support intensive solution.
4. Consider contracting with ESD 113 Network Services to provide consulting services to the Technology Department.
5. Consider implementing a technology procurement process that encourages input in the decision making process from the end user(s).
6. Consider implementing a focused and ongoing effort to assist the staff members with the integration & use of technology to improve learning outcomes & increase staff efficiency, including (but not limited to):
 - a. Classroom management and organizational strategies for technology use
 - b. Innovations and best practices in the use of technology
 - c. Multi-disciplinary, collaborative or self-directed learning projects
 - d. Problem solving with real data sets, online communication and use of digital resources such as eBooks

- e. Accessing and managing educational technology resources
 - f. Web-based interactive technologies
7. Consider formally recognizing and/or other incentives for staff members who utilize innovative, technology- supported teaching practices
 8. Consider developing and implementing a communication plan so all district staff members know about the technology resources available and the expectations for their use. This may allay perceptions of some staff regarding the amount and quality of district technology.

Technology Needs Assessment (District Technology Standards)

Shelton School District maintains a hybrid network, utilizing mainly Microsoft Windows 7 Pro desktops with some Windows XP workstations. We are using the State's minimum standards as our guidelines for computer desktop deployment. We maintain a gigabit backbone network connecting each of our district buildings. We have a growing collection of tablets and other WiFi devices.

We are transitioning from 3Com network switches to HP ProCurve network switches. These networking devices are used to distribute and control our voice and data backbone network.

For servers we are using the Windows 2008 R2 operating system, with most servers being set up as virtualized servers using Hyper-V. When applicable we will be upgrading servers to version 2012. We need to upgrade our old web servers running Windows Server 2003 that host older vbscript based applications. Our main web server is supporting Dot.net version 4.0, 3.5, 2.0 and 1.0.

Software used district-wide with main function noted:

Databases: MS SQL Server 2012, 2008, 2005 and 2000, MySQL, and Access 2010

Spreadsheets: MS Excel 2010

Presentation: MS PowerPoint and Visio 2010

Word-processing: MS Word 2010

Desktop Publishing: MS Publisher 2010

Vox Communication: VersaTerm-ETerm32

E-mail: Exchange 2010 and Outlook Client 2010

Web server: SharePoint Server 2010

Antivirus: Microsoft Forefront Endpoint Protection 2012

Standardized Desktop Operating Systems: Windows 7 Pro & XP Pro

In addition, numerous miscellaneous and specialized software packages are used at specific grade levels. Our goal is to reduce the number of unique software packages used district-wide to reduce support and training costs.

Phone System: We maintain a district wide phone system complete with voice mail and emergency 911 dialing. The phone system is a Toshiba Strategy system.

Internet access is provided by the Washington State K-20 network services.

Building to building network and phone connectivity is provided by a combination of district-owned fiber cables and leased fiber cable from Hood Canal Communications.

Technology Needs Assessment (Maintenance, Upgrade, and Support Strategies)

Description of Maintenance/ Upgrade/Support Strategies	Timeline	Notes
Annually review existing computer hardware for targeted replacement to keep as close as possible to State Minimum standards for hardware.	Career and Technical Education labs updated on an annual basis. Try to keep all CTE computers updated with a maximum age of three years. Other new computers purchased as funding allows targeting to replace computers on a 6-year cycle.	Utilize Computers 4 Kids program that uses state office surplus computers to replace older computers not meeting standards. Building budgets and departmental budgets used to purchase new computers as needed for non-classroom computers. Tech budget from local levy will be used to purchase new classroom computers.
Computer Operating System - continue migration to Windows 7 to replace desktop computers running Windows XP. New computers will run on Windows 7 operating system. Take a look at Windows 8 and implement it when ready.	Complete migration of Windows XP computers to Windows 7 by August 2013.	Windows 7 operating systems to be included in purchase of new computers. Donated computers need to be capable of running Windows 7 Pro operating system.
Office productivity software - We currently have Office 2010 installed on all of our student and staff computers. Office 2013 will be available soon.	Timing depends on curricular needs and training of staff on new program.	New office software is included in our Microsoft licensing agreement
Repair or replace failed equipment including phones, printers, monitors, projectors and document cameras as funding allows.	Estimated average life span of 6 years for projectors, 7 years for document cameras, 7 years for printers, and 7 years for monitors.	Replace printers, monitors, projectors and document cameras when cost effective to replace rather than repair.
Maintain Server Operating Systems, server access licenses, software distribution applications, file backup software and anti-virus software.	Anti-virus software updated whenever a new version is available. Other software upgraded as needed.	Microsoft annual software subscriptions provide up to date versions of all of this software in addition to the Microsoft operating system and Office productivity software.

Description of Maintenance/ Upgrade/Support Strategies	Timeline	Notes
Replace old networking switches and maintain an emergency supply of switches.	Develop a 7-year replacement cycle for network switches.	Many of the district network switches are very old. The majority of the district network switches are more than 7 years old and they fail on a regular basis. We need to replace these older switches with new switches that have expanded capacity to handle the current and future networking needs of the district. We are looking at replacing these switches with HP ProCurve switches with Gigabyte ports and an internal building to building capacity of 10 Gigabytes. Once the older switches are replaced we need to implement a 7-year replacement cycle and maintain an emergency supply of switches in case of failures.
Upgrade WiFi system	As soon as funding allows	We need to expand our Aruba WiFi system to cover the entire district. The Aruba system is far superior to the current H3C system and allows for students and staff to connect their personal WiFi devices to the internet using the district Internet filtering system.
Replace old network servers	Develop a 5-year replacement cycle for replacement of old servers.	
Internet Filtering Server and License	Replace system on a 3-year cycle.	
Maintain and upgrade backup storage devices.	Replace backup storage units on a 5-year replacement cycle.	
Continue to develop the next level of Support Management System. This system is designed to provide more effective service of current hardware and applications with increased level of feedback available to those requesting service. Also, this system will provide resource management to teachers/staff on a classroom level basis.	Implementing web based program started during 2012-2013 school year. Continued development and refinement through 2013 and in the future as needs arise.	Basic training will be given at staff meetings and via online tutorials. More in-depth training will be voluntary for those that want to incorporate the advanced features. Tech Mentors will be given more in-depth training to assist their peers.

Description of Maintenance/ Upgrade/Support Strategies	Timeline	Notes
Technology Support - 1) Continue to maintain and upgrade skills of our Technology Department staff. 2) Staff technology support personnel at appropriate levels so that computers and related technology are a reliable part of the regular classroom curriculum and daily activities. We need to continue to investigate and make connections with area colleges for utilizing work study students.	Review technology service request and departmental tasks on an ongoing basis and make staffing recommendations to Superintendent as needed.	1) Training material and/or relevant classes for tech staff - purchased utilizing technology portion of levy funds. 2) Funding source for additional technology staff needs to be found.

How will these strategies support your district's learning goals?

The Support Management System will provide a number of tools to help Teachers manage the technology in their classroom allowing them to focus more on the integration of said technology in their daily curricular activities.

The efforts to keep our technology in place as current as possible will help to minimize distractions from non-working components and allow the teaching staff to focus on their building level improvement plans. Keeping current versions of software on computers will prepare students for software that they will experience in further education and in the business sector.

Computers can only be used to increasing student learning if they are dependable. If teachers and students have to wait for service that teachable moment may no longer be available.

Professional Development

Equipment Plans & PD Strategy	Timeline
<p>Technology Support staff need to stay current with educational technologies and support services and tools. Information Technology Specialists and Support Coordinators in charge of various systems need to stay current with the systems they work with. All technology support staff need to belong to appropriate forums and email distribution groups to keep up. Due to budget constraints we need to look for as many free training opportunities as possible. When necessary, staff need to be sent to training to stay current. The Director of Technology and Instructional Technology Coordinator need to be active in the local ESD Technology Support group and training offered there. Other technology staff should attend meetings when the topics are relevant to their work areas. The Director of Technology and Instructional Technology Coordinator should attend the Northwest Council for Computer Education conference annually to keep up with current trends and technologies in use across our region.</p>	Ongoing
<p>Technology staff meetings should include a training portion. It is important for technology staff to understand the interworking of different devices and technologies in place in the district even if they are not the ones in charge of maintaining the service.</p>	Ongoing
<p>Classroom staff need to be educated on the current resources available to them. This training will be done via our weekly "Tech Tips" electronic newsletter, staff meetings, and ongoing email communications from Technology Services staff.</p> <p>A partnership with our local ESD will provide specific training for applications and services such as Microsoft Office and utilizing electronic media resources.</p> <p>Curricular adoptions should include training for staff on how to utilize the technology components of their curriculum.</p>	Ongoing

How will these services support your district's learning goals?

In order for it to be effective, classroom staff need to be trained on the technology used in their curriculum. Technology support staff need to be trained on the technology systems in place in the district. Without training, needed technology could be out of service for extended periods of time and affect classroom instruction and learning.

Process to Review and Update Your Entire Technology Plan

Strategies for Review & Update	Person/Team Responsible	Timeline
Review the technology plan on an ongoing basis and make adjustments as necessary. Complete the annual state wide technology inventory and review the state-wide analysis of the survey. Develop and utilize a district-level assessment to evaluate technology integration. Review each building's school improvement plan and identify progress and plan for annual modifications based on the needs of the individual schools and curricular areas.	Director of Technology, Exec. Director of Teaching and Learning, Instructional Technology Coordinator, Principals, Teachers, Building Tech Committees, and District Tech Committee	Ongoing
Participate in curriculum review process of each content area and in district curriculum leader meetings. Work with curriculum leaders to provide research-based technology solutions where appropriate.	Director of Technology, Director of Teaching and Learning, Instructional Technology Coordinator, and District Curriculum Leaders	Ongoing
Work with each of the building Professional Learning Communities to ensure teachers are using the state's standards for educational technology. Review progress of grade-level assessments with each PLC.	Director of Technology, Director of Teaching and Learning, Instructional Technology Coordinator, and building PLCs.	Ongoing
Review professional development of each Technology Department staff member as part of their annual evaluation.	Director of Technology and Technology Department Staff	Annual

E-Rate – Priority One Requests

Voice, Data, Video and Other Priority One Capabilities

Maintain existing voice, data and video services. These services are necessary to make our district as productive as possible. A technology-enriched environment is necessary for classroom instruction and learning as well efficient and productive support and administrative services.

How will these services support your district's learning goals?

1. These services will provide the means and bandwidth needed for the usage of educational resources provided by internet sources.
2. These services support a highly productive administrative and operations side of educational institutions.
3. These services provide an integrated communication system that enables a simpler voice mail system for the end-user, and provides more reliable communication with, and between, staff and the community we are serving.
4. These services will allow us greater flexibility in communications by offering expanded student to student access across classrooms, buildings, and beyond.
5. These services will provide broader interaction for staff with peers while also providing greater flexibility in staff development/mentoring by allowing virtual "face-to-face" meetings and trainings while reducing the cost of traveling to a training site.

E-Rate – Priority Two Requests

Network & Telecommunications Plan

Replace the network switches and UPS systems at all our schools. Expand our building networks to provide wireless access for all classrooms and replace outdated access points.

Internal Connections

Many of the district network switches are very old. The majority of the district network switches are more than 7 years old and they fail on a regular basis. We need to replace these older switches with new units that have expanded capacity to handle the current and future networking needs of the district. We are looking at replacing these switches with HP ProCurve switches with Gigabyte ports and an internal building-to-building capacity of 10 Gigabytes. Once the older switches are replaced, we need to implement a 7-year replacement cycle and maintain an emergency supply of switches in case a unit fails.

We need to expand our Aruba WiFi system to cover the entire district. The Aruba system is far superior to the current H3C system and allows for students and staff to connect their personal WiFi devices to the internet using the district Internet filtering system.

How will these technology elements support your district's learning goals?

These networking components are core components for computers to connect to the district network and the internet. They are necessary for all learning goals as without them the computers could not connect to the servers or the internet. Wireless capabilities are a necessary component to utilize tablets and other small WiFi devices. Having wireless capabilities in the buildings allows for the sharing of computers in a lab setting without requiring a room dedicated to this purpose.