

# **AOS92**

## **Kennebec Valley Consolidated Schools**

### **School Technology Plan 2011-2013**

Vassalboro Community School  
Waterville High School/Alternative Ed  
Waterville Junior High School  
Albert S. Hall School  
George J. Mitchell School  
Winslow High School  
Winslow Junior High School  
Winslow Elementary School

Prepared by the AOS92 Technology Committee in  
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## Executive Summary

This plan develops a vision from which goals and realistic strategies for using telecommunications and information technology to improve education can be developed and evaluated. Existing systems of the three communities are carefully examined in each of these facilities. Some of these systems are quite extensive and meet many of the requirements of the community now. They all have limitations however, and this plan sets out goals and strategies to address these limitations.

The strategies focus on five major elements:

- **Curriculum Integration.** Technology will be integrated into the curricula, instruction, and assessment utilizing a variety of delivery methods including software, web-based subscriptions, electronic media and video. The existing CIA (Curriculum, Integration, Assessment) Committee comprised of several educators from each town along with the curriculum coordinator are continually researching and developing integration techniques.
- **Delivery Strategies.** The Technology Committees will continually monitor and develop strategies for the delivery of content through various means utilizing the technology at our disposal. These committees will also assess the need for new methods and new technology that may be needed to deliver content as it presents itself.
- **Management and Support.** The management system should be one that coordinates the efforts of the community to prevent undue redundancy and overlap. Standardization should be sought and support between facilities should exist. Maintenance of existing equipment, whether by contract or by internal assets, must be provided. The Director of Technology, in conjunction with the Technology Committees will provide a coordinated management structure. A team of technicians is available to support the system.
- **Architecture.** A system of assessment of needs in order to develop an informed set of requirements that the systems must meet is established. From this formal assessment, a system design with the appropriate hardware and software that fulfills those requirements in conjunction with the budgeting authorities.
- **Staff Development.** Staff development is necessary both for requirements development and also for system use. Only if teachers understand what the potentials for learning exist in an information technology system can they help develop the requirements for that system. It is most important to assess the current status of staff knowledge of the existing and planned systems and provide incentives and opportunity to train all staff so that they can integrate information technology into their activities. For the school system this should result in a learning environment that fully engages students and equips them to fit into today's technological society.

This plan is a framework of action that is necessary in order to develop specific tasks and a budget to support the mission of the schools. The plan lays out a roadmap in order to bring some consistency and rationality to the acquisition of information technology to the communities.

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# Section 1. Community and Parental Involvement

There are several methods by which technology plays an active part in each of our communities. Technology effectively enhances communication and promotes the use of technology through web sites, email, and telecommunications systems. AOS92 has developed a presence on the World Wide Web to better communicate and disseminate information to each other and the general public. Each school has developed an Acceptable Use Policy (AUP) which, along with the school handbook, outlines the technology available to students and its proper use. This information is also made available electronically. Our communities are represented in all aspects of the planning process in a number of forums. The AOS92 Technology Committee has community representation as does the District Leadership Team. The District Leadership Team is made up of representatives from all departments of the schools as well as community members and they are charged with setting the goals and developing the action plans to attain the goals. This committee meets throughout the school year and also holds an annual leadership retreat every summer to evaluate and plan future goals. The AOS92 Technology Committee, which is responsible for the development of this Technology Plan, encourages participation and input from a broad base of stakeholders including school administrators, teachers, students, support staff, adult education, local colleges, city representatives, parents and other community members.

## AOS92 Technology Committee

Will Backman, Director of Technology  
Dianna Gram, Principal, Vassalboro Community School  
Aaron McCullough, Assistant Principal, Vassalboro Community School  
David Trask, Technology Teacher/Coordinator, Vassalboro Community School  
Floyd Wygant, Technology Integration Specialist, Waterville  
Allan Haley, Teacher, Waterville High School  
Pam Bonney, Media Center Director, Waterville  
Jane Lee, Technology Integration Specialist, Waterville  
Kyle Price, Principal, Winslow Elementary  
Joan Meehan, Technology Teacher/Coordinator, Winslow High School  
Justin Cole, Technology Specialist K12, Winslow  
Paula Vigue, Science Teacher, Winslow Jr. High School  
Dwight Gagnon, Computer Teacher, Winslow Elementary  
Bruce White, Computer Technician, Winslow and Vassalboro

Along with the AOS92 Technology Committee, there are various town or building-level technology committees in the Member School Units. These committees also encourage participation and input from a broad base of stakeholders. These committees help guide the technology programs in the schools, and provide valuable contributions to the AOS92 Technology Committee.

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## Section 2: Vision

Access to information is fundamental to ensure that every citizen in a democratic society has the knowledge required to make informed choices in the elective process as well as for day-to-day informational needs. Information technology is essential to becoming a

productive citizen and lifelong learner, and this access should be available to all who desire it; it should not be dependent on the economic or social standing of the recipient. It is particularly important that access and education regarding the use of this technology be provided by our schools.

Thus our vision is that all our citizens will have access to public information crucial for their political and personal decision-making and that they will have the necessary education and training to utilize the technology available for obtaining that information. Information technology will be incorporated into the learning process as an effective means for students to reach educational goals. Research, data analysis, reporting, collaboration, sharing information and the production of high quality projects are examples of activities that are enhanced in a technology-rich learning environment. Students who can perform learning activities using these tools will have the functional and analytic skills needed in an increasingly technological society.

## **Mission Statement**

The mission of the Technology Program is to provide the community and all its citizens with access to current information technology and the education and training to utilize this technology effectively, and to ensure that teachers and students have the technical support for an environment that promotes engaged learning.

## **Scope**

This three-year plan describes the technology program for AOS92 and the Member School Units of Vassalboro, Waterville, and Winslow. These communities together make up the Kennebec Valley Consolidated Schools, designated as AOS92 under the 2007 State of Maine School Administrative Reorganization law. The plan addresses the requirements of information technology for the schools of these three Member School Units.

Technology in this plan refers to information technology and that term will be emphasized throughout. Information technology includes the aggregate of computers, computer databases and other online resources, fax machines, telephony and video displays and their telecommunications links.

This three-year plan should be considered a dynamic document that provides a road map for the technology program for the schools. It is dynamic in the sense that it requires continuous adaptation based on funding and technology changes that may occur from year to year. As a road map is not the road, neither is this plan the program itself; implementation of the plan must be taken to achieve the technology-rich environment envisioned.

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## **Section 3: Goals**

### **Goals and Strategies**

## Curriculum Integration

- **Goal #1:** To continue the development and implementation of technology enhanced programs based on the State of Maine Learning Results during the transition to the Common Core Standards.
- **Goal #2:** Ensure that students are proficient users and creators of information and technology resources, and that all students acquire meaningful, responsible 21st century skills.
- **Goal #3:** To increase student achievement and learning through the use of the resources of information technology as specified in State of Maine Learning Results during the transition to the Common Core Standards.
- **Goal #4:** Expand the reach of a seamless and transparent system for collecting, analyzing and communicating student achievement.

## Delivery Strategies

- **Goal #5:** To improve the quality and efficiency of instruction using technology tools and information access pathways to design as well as deliver instructional activities and manage educational resources.
- **Goal #6:** Provide grades K- Adult education students with opportunities for participating in virtual education programs as means of improving students' achievement in maintaining, supplementing, enriching, or remediating existing skills.

## Management and Support

- **Goal #7:** To maintain an effective management structure which allows various information technology systems to be properly designed, coordinated, installed and operated to support the educational system and the citizens' right to access in an efficient, effective manner consistent with budget constraints.

## Architecture

- **Goal #8:** To continue the development of technology systems necessary to support the envisioned infrastructure of the schools and the communities.

## Staff Development

- **Goal #9:** To provide the necessary staff development to effectively manage technology resources and to model the use of technology in learning, teaching, and work to support the State of Maine Learning Results during the transition to the Common Core Standards.

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# Section 4: Identification of Necessary Technology

Schools are responsible for providing students with the tools to function efficiently and effectively in the modern community. They have the broadest challenge in the new age of technology: they must educate the staff to integrate technology in the classroom in all courses as well as impart appropriate levels of knowledge of technology to the students and the community. Some of their requirements include:

- providing professional development to teaching staff on the technology tools that can enhance their teaching
- providing a workstation for each teacher.
- providing adequate access to technology for students.
- introducing all students to the capabilities of computers and information technology at appropriate grade levels.
- providing opportunities for those students who wish to take advanced computer courses that will provide a basis for employment or further studies.
- providing necessary infrastructure for data storage and networking.
- using computers in the administrative requirements of the school.
- using the Internet as an information and application resource.
- using the Internet to provide the community with access to the activities and news of the school.
- providing e-mail and collaboration capabilities.
- integrating technology into the fabric of instruction.

## Current Technology Status

At the present time, each of the schools has extensive networked computer systems that support instruction and administration. Appropriately, these systems vary in size and complexity based on educational level and population of the school.

## Surveys

Student and Staff surveys have been used to identify needs and measure the progress of our planning, and we intend to continue these surveys as a way to establish a consistent baseline and track progress towards our long term goals.

## Technology Education, Management, and Support Structure

Technology education, management and support is handled and/or coordinated by a team of people across the district. AOS92 employs a Director of Technology to plan, coordinate and oversee all technology activities and establish goals, objectives and operational priorities. District-wide there are key personnel who are designated to be responsible for coordination, integration, instruction, and the everyday operations of certain systems. AOS92 has contracted with outside vendors to maintain certain telecommunications, printing, and copying systems.

- **AOS92 - Kennebec Valley Consolidated Schools**
  - AOS Technology Committee
  - AOS Technology Curriculum, Integration, and Assessment Committee
  - Director of Technology
- **Vassalboro Member School Unit**
  - *Vassalboro Community School*
    - Technology Teacher/Coordinator/MLTI Teacher Leader
- **Waterville Member School Unit**
  - Waterville Technology Committee
  - Computer Technicians (3)
  - Integration Specialists/Curriculum Leaders (2)
  - *Waterville High School/Alternative Ed*
    - High School Technology Committee
    - Computer Lab Ed Tech (1)
    - Webmaster

- MLTI Teacher Leader
- *Waterville Junior High*
  - Junior High Technology Committee
  - Webmaster
  - MLTI Teacher Leader
- *Albert S. Hall School*
  - Computer Lab Ed Tech (1)
  - Technology Curriculum Lead
  - Webmaster
- *George J. Mitchell School*
  - Computer Lab Ed Tech (1)
  - Technology Curriculum Lead
  - Webmaster
- **Winslow Member School Unit**
  - Winslow Technology Committee
  - K-12 Technology Coordinator
  - Computer Technicians (2)
  - *Winslow High School*
    - High School Technology Committee
    - Technology Teacher/Coordinator
    - MLTI Teacher Leader
  - *Winslow Junior High*
    - Junior High Technology Committee
    - MLTI Teacher Leader
  - *Winslow Elementary School*
    - Technology Teacher

## **Member School Unit: Vassalboro**

### **Vassalboro Community School**

#### **Capabilities**

Vassalboro Community School currently has numerous computers throughout the school. They are mixture of Mac OS X laptops, Windows 7 PC's and laptops, as well as Linux terminals. Forty-two of those computers are split between two computer labs. There are three terminal servers, two Linux and one for Windows 2003, as well as 4 other servers for various functions ranging from terminal services to the Lexia Reading Program. All VCS classroom teachers have laptops. Some are older Mac OS X laptops purchased as part of the buyout of the MLTI2 program. All teachers and students in grades 7 & 8 currently have MacBooks as part of the MLTI program. All of the computers at VCS are connected to the Internet. All staff and student occupied rooms have at least one computer connected to the school LAN (either wired or wireless), this includes all offices and classrooms. Most classrooms have multiple computers. Currently all computers print via the network to departmental laser printers located in each wing, the lab, or the office. The office computers print to a laser printer, a multi-function color copier/fax/printer, and a copier/printer all located in the front office. Several computers are also able to print and scan via networked copiers in the main office and the library. All staff have access to email using the AOS 92 FirstClass email system as well as Google Apps for Education. VCS currently has a very active web site featuring information about school activities, the lunch menu, the school calendar, and even access for parents and students to check homework online. A scanner, digital cameras, digital movie cameras, 4 mobile SMARTBoards, 2 stationary SMARTBoards, and several LCD projectors are available to staff and students. The school has a full-time computer teacher/coordinator. VCS upgraded in 2010 to a much higher speed fiber connection from Time Warner/MSLN for Internet connectivity. This increased capacity allows for smoother web browsing and

enhances our ability to utilize web based multi-media resources. All classrooms are now connected via a school-wide VOIP phone system. Each room has a phone with individual voicemail accounts for all staff. The VOIP phone system is also tied into the public address system making it easy for office staff to be able to page students and make announcements. VCS has computer automation (Winnebago/Spectrum) for the library making it possible to check available titles electronically from anywhere in the building or via the web as well as providing the librarian with the tools to make circulation easier via bar code scanning.

Students and staff have access to a number of facilities:

- File servers via network/Internet.
- School web page server via network/Internet.
- Moodle server
- Email accounts for staff via Google Apps for Education and FirstClass
- Google Apps for Education accounts for all students
- Scanning station.
- Digital cameras and digital video cameras.
- Networked color and black and white laser printers.
- Networked scanners
- All laptops connect to projectors.
- Mobile and stationary SMARTBoard interactive whiteboards
- VOIP phones with voicemail in every classroom

#### **Limitations**

- Space and lack of furniture make it difficult to add computers to classrooms
- Budgetary constraints have hampered efforts to procure modern laptops for teachers in grades K-5

## **Member School Unit: Waterville**

### **Waterville High School**

#### **Capabilities**

Devices available for student use: (159 laptops & 88 desktops)

5 mobile lab-carts - 25 MacBook each (OS 10.5)(library, math, social, science, & English)

3 fixed labs - 25 MacMini (OS 10.5), 25 MacMini (Windows XP) & 20 MacMini (Windows XP)

Media Circulation/Reference Area - 12 MacMini (Windows XP) & 1 MacMini (OS 10.5)

6 mobile lab-carts (Spec Ed) - 5 @ 10 MacBooks each & 1 @ 20 MacBooks

(Rasmussen-20, Folsom, St.Pierre, Blanchet, King, and Sinclair) Note-Sinclair upgrading from iBook to MacBook June 2011.

Media Loaner Program - 14 MacBooks (OS 10.5) & 4 iBooks (may be upgraded to MacBooks if we get sufficient donations)

Read 180 Resource mini-lab - 5 iMac desktops (OS10.6) Note- these are specifically for the web-based Read 180 program but are loaded with the MS Mac Office Suite.

All of the student devices are connected to the school's network domain (network file server & Internet access) and are loaded with MS Office Suite (Word, Excel, PowerPoint & Access). Those devices running Mac OS are also loaded with MS Office Suite (Word, Excel, & PowerPoint) as well as Apple's iLife Suite (Garageband, iMovie, iPhoto, iWeb, and iDVD). Adobe Creative Suite 3 is available all desktop devices and the 5 mobile lab-carts.

Teacher Devices: (59 laptops & several desktops)

We have maintained the 1-to-1 teacher computers with MLTI MacBooks (OS 10.5) and provide a LCD projector for classroom teaching spaces & 1 conference room [(48

projectors)most classrooms have the LCD permanently mounted; hopefully, all will be mounted after the school remodel]. Additionally, we have 23 classrooms & 1 conference room have Smart inter-active white boards installed, leaving 20 classrooms & 4 lab spaces needing inter-active boards).

Note: Several teachers & counselors still have desktop computers in their classrooms/offices. These are being phased out based on attrition or user choice. In addition to the MLTI MacBooks, the Math Dept teachers continue using Compaq desktop towers due to software compatibility issues. All desktops still have the MS Office Suite installed.

All MLTI provide MacBooks have the iLife Suite, iWorks Suite (Pages, Numbers & Keynote), Noteshare & the NeoOffice Suite (word processing, presentation, & spreadsheet freeware) as well as a changing variety of curriculum content software packages to support specific departments.

The library media center provides subscriptions to the online resourcesCQ Researcher and Culturegrams. The MARVEL Databases provided by the State Library are used heavily.

In addition to the classroom teachers, MLTI provides a MacBook for 3 administrators, 3 counselors, the librarian, the ESOL teacher, the nurse, and the integration specialist here at the High School.

Waterville Sr High uses a Moodle server to provide online and hybrid courses which is synchronized for secure login with the FirstClass email system. Additionally, the Sr High as integrated a local domain version of Google Docs for collaborative projects which is also synchronized for login with the FC system. The Sr High has started making the internal FirstClass Bluefiled Social Media available. As this is part of the FirstClass server, it is fully synchronized with the email system. Beginning in 2011-2012 Waterville Sr High will offer a small "open network" for personal student wireless devices. Personal staff wireless devices and education-plan specified devices will continue to have full access to the school's closed network.

### **Limitations**

- Funding is an issue in achieving 1-to-1 interactive white board the remaining 20 classrooms and 4 lab spaces
- Time continues to be an issue for teacher release to work on technology skills and class/team projects
- Certain core network components do not give best performance and lack the flexibility to support future enhancements such as voip, ipv6, NAC.
- With no teacher desktop replacements in our budget some academic departments rely on PC only software titles with are not easily used on MLTI devices.
- Teacher classrooms lack consistency in deployment and operation of classroom technology, this can make certain operations difficult.

## **Waterville Junior High**

### **Capabilites**

WJH has full internet connectivity through wireless access points located throughout the building. All staff has e-mail accounts, using FirstClass. All students have e-mail accounts with open access once they have completed the Digital Citizenship Unit in grade 6. There is access to Moodle through FirstClass. Staff and students also have individual File Server Accounts. WJH is a MLTI school where all 7th and 8th graders are issued a MLTI MacBook. Currently there are 5, 8th grade students without a laptop due to non-warranty breakage their 7th grade year. We also have \_ broken laptops

awaiting repair due to budget restrictions. 6th grade has 2 carts of 25 MacBooks, plus an additional 10 to share between the two neighborhoods. One classroom has 9 eMacs and 4 (Colby computers). One 6th grade classroom has a SmartBoard. The Media Center has 5 eMacs and one (Colby computers). All teachers have either a MLTI MacBook (new in 2009), or a school issued MacBook (new in 2008) 7 classrooms have desktop PC's, of which only 2 are regular education rooms. 17 classrooms have a mounted projector, 4 have a projector on a cart and 11 classrooms do not have projectors. There are no document cameras at WJHS. There are 2 laptop carts for Special Education. One has 10 MacBooks and the has 10 iBooks. All 7th and 8th grade laptop have the current MLTI image installed. For word processing they are using either Pages, or NeoOffice. 6th grade students use MS Word, but do have iWorks installed on all of the carts. Teachers do not have Word, but use Open Office for word processing. The library media center provides subscriptions to the online resources Nettekker, Culturegrams, and BrainPop. The MARVEL Databases are provided by the State Library.

### **Limitations**

- Funding is an issue in achieving 1-to-1 interactive white board for all classrooms teaching spaces.
- Time continues to be an issue for teacher release to work on technology skills and class/team projects; however, the building administrator is working to help in this area.
- Certain core network components do not give best performance and lack the flexibility to support future enhancements such as voip, ipv6, NAC.
- Teacher classrooms lack consistency in deployment and operation of classroom technology, this can make certain operations difficult.
- The MLTI project does not provide sufficient support for the laptop service needs of the school

## **Albert S. Hall School**

### **Capabilities**

ASHS has full internet connectivity through wireless access points located throughout the building and several hard wired desk tops. All staff has e-mail accounts, using FirstClass. Staff and students have individual File Server Accounts.

All 4th and 5th grade classrooms, along with Special Education, have a MAC mini, iMac (newly installed donated iMacs from Colby in April, 2011), a document camera, and a projector. All regular ed. staff were issued a MacBook in 2009. There are 2 laptop carts located in the building. The top floor has 25 new (2011) MacBooks and the 2nd floor has 25 older Macbooks.

There are 3 SmartBoards in the school (Library, Computer Lab, and 4th grade teacher Gi Reed's room).

ASH has a 24 station computer lab with MAC minis. There is also an eMac, and a color and black and white laser printer.

Most software used is web-based, but almost all classes use Type To Learn 4 and Microsoft Office. Special Education staff uses Edmark Reading program and Boardmaker, along with a few other licensed and specialized programs. The Library Media Center provides subscriptions to the online resources Nettekker and BrainPop. The State Library provides access to the MARVEL Databases.

### **Limitations**

- Funding is an issue in achieving 1-to-1 interactive white board for all classrooms teaching spaces

- Classes would benefit from a higher ratio of student devices.
- Certain core network components do not give best performance and lack the flexibility to support future enhancements such as voip, ipv6, NAC.

## **George J. Mitchell School**

### **Capabilities**

GJMS has full internet connectivity through wireless access points located throughout the building and several hard wired desk tops. All staff has e-mail accounts, using First Class. Staff have individual File Server Accounts. All of the teaching staff has Macbook laptops. The GJMS Computer Lab-Has 25 Mac mini's desktops, one projector, one scanner and one black and white printer. Third Grade classrooms-Each classroom has 2 Mac mini desktops for students use, one digital camera, one projector, and a sound system. Judy Coombs has two additional XP desktops that replaced Macs that she had gotten from Colby. Second Grade classrooms-Each classroom has 2 Mac mini desktops for student use, one projector, and a sound system. Sherrill Saulter has a digital camera that is Kim Carey's purchased through a grant that she wrote. I though I would mention this because although it does not belong to the school system it is being used. Kert Dolloff and Sharon Hart have two additional XP desktops that replaced Macs that they had from Colby. First Grade classrooms-Each classroom has 2 Mac mini desktops for student use, one 24 in monitor and a sound system. June Linscott has a projector instead of the larger monitor. Kindergarten- Each classroom has 4 Mac mini desktops for student use, a projector, and sound system. Judy O'Donnell has a 24 in monitor instead of a projector. Marji Mckenzie has neither by choice, although there is a 24 in monitor available for her use. New laptop cart-20 Macbooks Special Ed has two laptop carts with 25 Mac laptops, and 3 XP desktop computers. There is 1 Smart board in the conference room. The ILSL Grant funded a cart of 10 Mac Laptops for the library to be shared in the building. There are an additional 10 Mac mini running XP distributed among the offices.

There are 8 black and white printers, one in each wing, one in the kindergarten and 3 in the office area. There are 3 color printers, one in the library, one in the office and one in kindergarten.

TTL4, Reader Rabbit, and Millie and Baileys, Chicka Chicka Boom Boom, KID PIX, Edmark Math Games, Little G, Learning about ABC's, Kispiration and Ultimate Writing are all programs that are used regularly at GJMS. Microsoft Office products are also used in all classrooms and in the lab. Special Ed also uses Fluent Reader.

GJMS has subscriptions to Brain Pop Jr., Enchanted Learning and Rain Forest Math. Our reading program, Reading Street also has a digital path that is accessed daily.

### **Limitations**

- Certain core network components do not give best performance and lack the flexibility to support future enhancements such as voip, ipv6, NAC.
- Classes would benefit from a higher ratio of student devices.

## **Member School Unit: Winslow**

### **Winslow High School**

#### **Capabilities**

The Winslow High School (WHS) has a local area network that provides wired access to the phones and wired workstations.

The WHS also provides wireless access throughout the building with encryption as well as an open, Guest, network.

The WHS provides laptops computers for all of the teaching staff and students within the building.

The WHS provides a robust selection of fixed workstations located in the library and two labs.

The WHS supports and uses an online learning tool (Moodle) to facilitate the learning environment.

The WHS hosts a print server to centrally route network printing queues for easy access by students. Likewise, the WHS hosts a variety of printing resources throughout the building including color printers and document centers.

Technical support staff in the WHS have the use of remote management software to facilitate the ongoing support and maintenance of the machines in that building.

The Winslow HS also has several roaming projectors and fixed projectors with Promethean Boards in approximately half of the classrooms.

### **Limitations**

- Limited network management: outsourcing is necessary.
- The MLTI project does not provide sufficient support for the laptop service needs of the school
- Students have no school-provided / managed email accounts
- No full integration of services with the directory server.
- No print management software
- InfoCenter has been discontinued by the vendor.

## **Winslow Junior High School**

### **Capabilities**

The Winslow Junior High School (WJHS) has a local area network that provides wired access to the phones and wired workstations.

The WJHS also provides wireless access throughout the building.

The WJHS provides laptops computers for all of the teaching staff and student within the building.

The WJHS provides a limited selection of the fixed workstations of mixed operating systems for use for specialized functions such as library research, reading recovery programs and other tasks.

The WJHS supports and uses two online learning tools to facilitate the learning environment. One of these is currently Moodle and the other is currently a NoteShare server.

The WJHS hosts a print server to centrally route network printing queues for easy access by students. Likewise, the WJHS hosts a variety of printing resources throughout the building.

Technical support staff in the WJHS have the use of remote management software to facilitate the ongoing support and maintenance of the machines in that building.

The Winslow JHS also has several projectors and three SmartBoards on stands that can be utilized by the staff for instructional purposes.

### **Limitations**

- The level of MLTI funding does not support the upkeep/repair needs of computers.
- The level of MLTI funding does not support all of the software needs.
- Students are on a different email system from the staff.
- Student email accounts are basic and provide no over-arching management capabilities or collaboration tools. No centralized directory structure for all users for all systems.

- No print management software
- No networked file storage
- InfoCenter has been discontinued by the vendor.

## **Winslow Elementary School**

### **Capabilities**

The Winslow Elementary School (WES) hosts the Winslow VoIP phone switch (services all four Winslow school buildings)

The WES has a Local Area Network (LAN) for the school which connects to the internet through the Wide Area Network (WAN) that encompasses the three Winslow schools and the Winslow Central Office.

The WES also hosts wireless coverage throughout most of the building.

The WES has multiple workstations located in the school library and a fully-equipped computer lab with 30+ working terminals. The WES also has provided a laptop for each teacher as well as workstations for the office staff and many of the support staff.

The WES has adequate printing resources for its current needs including networked printers and document centers and a color printer in the main office.

### **Limitations**

- Many computers are 8+ years old.
- No central directory service for users.
- No email for students.
- No print management software
- InfoCenter has been discontinued by the vendor.
- Need additional wireless coverage for certain areas of the buildings. Portions of the building have weak or no signal.

## **AOS92 - District-wide**

### **Capabilities**

At the district level we use several software programs to conduct the business of running a school system. These programs include purchase order, financial management, payroll and human resources software. The district uses a common web-based Student Information System provide by the Department of Education. AOS92 also provides a common FirstClass email and collaboration server for all staff and many students in AOS92. There is a wide area fiber-optic network connecting all three towns.

### **Limitations**

- LAS – Local Assessment System (further leveraging NWEA)
- Transportation (transition to State transportation software)
- Lack of comprehensive, multi-site backup solutions.
- Lack of integrated, AOS-wide directory services for user portability
- Continue to expand technology offerings for Adult Education

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## **Section 5: Collaboration with Adult Literacy Service Providers**

AOS92 currently participates as a member of the Mid-Maine Regional Adult Community Education Program. Due to our location and regionalization efforts with regard to

combining services to maximize benefits, adults interested in obtaining their high school diploma or GED participate in adult education classes in the regional adult education program. In addition, community members are allowed and encouraged to participate in AOS92 Technology Courses, which are offered each school year.

AOS92 has applied for and received several grants over the years with a focus on literacy and reading. Applying for these grants is done with the purpose of working with families to increase their literacy levels. Technology will be used to enhance this service through the use of specialized software, such as Lexia Learning, PLATO, Read 180, Reading Counts, FastMath, Read Naturally, DIBELS, and others. The program also helps families locate resources through the use of technology that are essential for literacy development, which may lead to employment and a better quality of life.

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## **Section 6: Strategies for Improving Academic Achievement and Teacher Effectiveness**

AOS92 offers district-wide technology courses as part of our professional development program. Many staff participate in the courses each year to enhance their knowledge and to learn how to better integrate technology into the curriculum. Staff members are encouraged to attend conferences in their subject area particularly when it is related to technology. Many staff members attend content-based training offered as part of the MLTI project. These funds and local funds are supporting any and all training that offers advancement in the use of technology. Long range planning shows us that we need to address training regarding integrating technology into the curriculum on a regular ongoing basis.

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## **Section 7: Integration of Technology with Curricula, Instruction, and Assessment**

Technology in AOS92 is now considered an integral part of our everyday teaching, learning, and assessment. Several years ago when we began writing Technology Plans such as this one, technology was a new “thing” that had yet to find its place in our curriculum. Now technology is considered another tool along the same line as a textbook. The most prevalent use of technology in conjunction with subject matter taught in the curriculum is through the use of the Internet and using web sites and other web-based resources to augment or further the study of a particular unit. Using the Internet, students conduct research on particular topics, use several Web 2.0 technologies such as Google Apps for Education, work with educational flash or shockwave based programs, explore multi-media such as movies and music, communicate with others, as well as participate in teacher-created web based assessment.

Software that has been installed locally on the network or hard drive is used to support each area of the curriculum. The majority of the titles are used to support and enhance language arts, science, and social studies. Some schools are using specific titles such as Lexia to enhance and assess language skills among students with special needs. The high school is using PLATO, which is a web-based modular instructional program. Most schools are using FirstClass Collaborative Classroom for electronic communication between staff, students, and the community.

Although most teachers are integrating technology into their own curriculum on a regular basis, technology courses are also offered at all grade levels on a weekly, quarterly, or semester rotation.

Technology plays an integral part in assessment both locally in the classroom and district-wide. Many teachers utilize varying levels of technology ranging from simply typing a test to online assessment with instant feedback to assess student performance. The 8th grade students have also participated in the online version of the Maine Educational Assessment Test. The district also administers the online NWEA test to conduct assessment throughout AOS92.

Integration is currently taking place in virtually all areas of the curriculum. This will continue and be updated as new technologies and software become available, while maintaining the scope and sequence outlined in the State of Maine Learning Results during the transition to the Common Core Standards and the local curriculum.

All staff are expected and required to be familiar with and utilize the provided resources, such as email, for electronic communication within school and between school and home.

## Section 8: Technology Type and Costs, and Coordination with Funding Resources

### Three Year Program

The strategic goals outlined above can be accomplished by achieving the following specific objectives through the time-phased program. This program consists of a schedule of specific actions, which are to be accomplished along with the financial resources that will be allocated or obtained to achieve these objectives. The following steps are proposed as actions to continue the development of the systems needed to support engaged learning and to fulfill the vision of information access for the entire community.

Activity	Hardware/ Software	Estimate Cost	Funding Source	Timeline
Develop and implement a K-Adult Ed Technology and Information Literacy curriculum as set forth in the ISTE's NETS standards and the AASL's Standards for the 21st Learner, and mechanism for assessing student performance.	N/A	\$10,000	Ed Tech funds, PPPD funds, and other grant monies	Ongoing
Installation of LCD projectors and supplemental presentation technology such as interactive whiteboards or document cameras in all classrooms. Acquisition of teleconferencing equipment.	Projectors, document cameras, interactive whiteboards, teleconferencing equipment	\$100,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Ongoing

Maintain district and school web servers and external web resources for community information sharing, such as the Infinite Campus Parent Portal, highschoolorsports.net, etc. - Acquire and maintain appropriate servers, software, and/or hosting for school and district web sites.	Servers, software, and hosting	\$3,000	Local funds, E-Rate	Ongoing
Continue to provide opportunities for students to participate in advanced courses - Maintain relationship with local colleges where students are allowed to take free courses.	N/A	\$0 (offered as a free service)	N/A	Ongoing
Provide students and teachers with opportunities to share and demonstrate their learning.	N/A	\$0 (Internal resources)	N/A	Ongoing
Provide teachers with training for using virtual education options.	Servers and Course Management Software	\$10,000	Ed Tech funds, PPPD funds, and other grant monies	Summer 2012
Identify and increase use of electronic resources as an alternative to paper text books	N/A	\$10,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Ongoing
Seek common systems across the AOS to increase efficiency, particularly looking at Food Service, Library Automation, Academic Recovery and Intervention.	Servers, Software Licenses	\$50,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Ongoing
Continue to procure and maintain appropriate licensing for software products that are used in our schools - Will enable us to continue to integrate software into the curriculum as a supporting tool as well	Software titles, licenses, online subscriptions, and CAL's	\$75,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Ongoing

as continue to utilize administrative programs.				
Continue to support and upgrade the present infrastructure for workstations, servers and network connections - Will enable us to maintain our current deployment as well as provide for future needs.	Workstations, servers, wireless access points, switches, and network equipment	\$200,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Ongoing
Multiple laptop carts in each building, with each cart large enough for a classroom.	Laptops and Carts	\$25,000/cart	Local funds, other grant monies	Ongoing
Increase computer resources available to students, including non-traditional computing resources such as netbooks, tablets, eReaders, etc. with a goal of making these resources available to any student who needs them.	Netbooks, tablets, eReaders	\$30,000	Ed Tech funds, local funds, Local Entitlement funds, and other grant monies	Summer 2012
Continue to provide training and professional development to staff, including technology courses, MLTI content area training, and specialized training.	N/A	\$15,000	Ed Tech funds, PPPD funds, and other grant monies	Ongoing
Standardize the district email system. Provide a common email and groupware system for all staff and students 6-12.	Software Licenses	\$14,000	Local funds, E-Rate	Summer 2011

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## Section 9: Supporting Resources

Business closures and economic adjustments in this area have had a negative budgetary impact. However, despite these closures and the lack of any significant business tax base community support for technology remains strong. All budgets shall be examined closely with respect to the new requirements of information technology to determine whether the priority for such technology should be revised. The measures of this plan cannot be carried out without funding support. In addition, funding from other agencies such as state, federal, or institutional shall be sought as available. This requires knowledgeable scanning of the programs and applying for all grants and other opportunities available. Local businesses shall be approached to obtain donations in the

form of equipment, software, maintenance services, and telecommunications services to the greatest extent possible.

AOS92 uses a wide variety of software and electronically delivered resources to enhance learning and supplement curriculum materials.

The school libraries in Vassalboro, Waterville, and Winslow are automated using library automation software to managed circulation and the card catalog. Winslow and uses InfoCentre, Waterville uses Destiny, and Vassalboro uses Winnebago/Spectrum. There has been no need to migrate Vassalboro to InfoCentre at this time, but plans are in place should the need arise. In all schools the client is web-browser based thus eliminating the need for client software and making it universally available to all platforms. The card catalog is available via the web from outside the schools. Winslow High School library subscribes to CQ Researcher online which is web based. Waterville schools have online subscripitons to CQ Researcher, Culturegrams, Nettekker, and BrainPop. The Marvel databases, provided by the state library network, offer all Maine residents access to periodicals. These databases are accessible from directly from school or from home through the Maine Infonet site.

The special education departments for AOS92 utilize many specialized software packages and subscription based programs to augment their delivery of services. Lexia software is currently in use throughout the district to assess reading and language skill levels and provide reinforcement in deficient areas. The special education secretaries use various programs to provide assessment reports used for triennial evaluations and IEP's. These programs include Woodcock-Johnson (W-J-III), Adaptive Behavior Assessment System III (ABAS), Auchenbach, Weschler Individual Achievement Test (WIAT-II), and Weschler Intelligence Scale for Children-4th ed. (WISC-IV). Winslow High School uses the PLATO program to provide online self-paced instruction in many academic areas. Winslow also uses Kurzweil Learning Systems for adaptive software and hardware to do text-to-speech for students with vision or reading difficulties. Boardmaker software is in use in most of the schools to generate symbols, pictures, and templates for use in communication with non-verbal students. Vassalboro uses several programs from Laureate and Earobics to enhance reading instruction.

In the area of regular education, the schools of AOS92 use many software packages and services as part of our curriculum. Each school uses an Office suite such as Microsoft Office, OpenOffice, iWork or others. These include software for word processing, presentation, graphics, database, desktop publishing, web development, and spreadsheets. Graphics software is also available. Graphics software titles include Adobe Photoshop, GIMP, TuxPaint, iPhoto, Seashore, Adobe CS3 Suite, and others. Each individual instruction area uses content specific software to augment their own curriculum. Vassalboro subscribes to several web-based services such as BrainPop.com and EnchantedLearning.com to add to their existing software and services. Winslow High School uses several technology-oriented textbooks to supplement the existing curriculum.

AOS92 employes a staff of people to support and maintain many of these systems, including computer technicians, integration specialists, data managers, and technology coordinators. AOS92 also relies on the services of outside vendors and professional support services for certain specialized systems.

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## **Section 10: Steps to Increase Accessibility**

AOS92 provides at least one computer for every single classroom in the district. Many classrooms have several computers as well as a variety of other technology devices

available for students. Through the State MLTI program, all 6th and 7th grade students have a laptop, and Winslow High School joined the MLTI one-to-one program last year. In other schools and grade-levels, we are committed to increasing access to technology for all students by utilizing creative ways to acquire and deploy additional hardware and software. AOS92 has secured many grants in the past, which have allowed us to acquire additional hardware for classrooms. Increasing the number of computers and devices available in each classroom lowers the student-to-computer ration thus allowing and fostering better technology integration. Use of donated hardware, open source software, Linux, and other lower cost alternatives also allow us to maximize our ability to provide greater access. Each member school unit has someone on staff who oversees the deployment and training related to computers and technology in the classroom.

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## **Section 11: Promotion of Various Curricula and Teaching Strategies that Integrate Technology**

Currently the technology teachers and coordinators, integration specialists, MLTI teacher leaders, and some technology savvy teachers act as facilitators for current technology developments and information regarding its use in the classroom. The staff often attend conferences and workshops designed to provide them with the information on various technology advancements and innovative techniques for use and delivery of services via the use of technology. As AOS92 explores these possibilities, it is always looking for the best and creative ways to engage its students. When we find resources, we will take every opportunity to bring these resources to our faculty either directly or through a teach-the-teacher model. With the addition of the MLTI program teachers have participated in content area meetings and workshops where they are able to learn about and share ideas surrounding the use of the laptops in the classroom. Since one-to-one computing has become available in many grade levels, the teachers have the opportunity to implement these strategies with all students. Some teachers also conduct the AOS92 technology courses in an effort to share their knowledge with colleagues. Teachers are encouraged to participate in professional organizations with regard to technology, such as ACTEM, and are also encouraged to attend workshops and conferences to learn more about current practices.

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## **Section 12: Professional Development**

AOS92 believes that the best way to improve student achievement is to build the human capacity of its teachers. We are committed to providing teachers with ongoing training and professional development as a means in developing their knowledge, skills, dispositions, attitudes, and self-perceptions in using technology as a tool for student and teacher learning. As part of this commitment, training and professional development activities are included in all school and system action plans.

AOS92 offers district-wide technology courses as part of our professional development program. Many staff participate in the courses each year to enhance their knowledge and to learn how to better integrate technology into the curriculum. Staff members are encouraged to attend conferences in their subject area particularly when it is related to technology. Many staff attend content-based training offered as part of the MLTI project. AOS92 building administrators are also providing specific time for professional development around technology during the district-wide in-service time.

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## **Section 13: Innovative Delivery Strategies**

Winslow High School and Waterville High School both take advantage of additional course offerings in technology at area vocational centers. The elementary and middle schools use LCD projectors and other methods of screen display such as Apple Remote Desktop or Altiris Vision to demonstrate skills and concepts to classroom students. Winslow High School also uses Vision to demonstrate and/or project the teachers screen to the other computers in the classroom. All schools in the AOS use interactive whiteboards to enhance learning with technology.

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## **Section 14. Accountability Measures**

This plan will be evaluated annually. The annual update will assess the progress achieved the previous year comparing it with the baseline established in the previous year's plan. In subsequent years a set of annual action steps to maintain and upgrade systems and advance existing programs as well as budgeting or securing the funds necessary to complete these steps will be an integral part of the plan. This will stem from the action strategies described earlier, which require a structured planning approach and which, when accomplished, will yield specific objectives and a more detailed program with costs and schedule.

The AOS92 Technology Committee will assess the effectiveness of the current plan annually and recommend changes. As part of the administration team, the Director of Technology attends regular meetings with administrators to discuss upcoming strategies and needs as we work together to accomplish our district goals relating to technology and its' impact on student learning, the Maine's Learning Results and the transition to the new Common Core Standards.

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