



## *Messalonskee School District Technology Plan 2009-2012*



*Technology in education is a tool for transformation that causes changes in how teachers teach, how schools are organized, and how students work together and learn.*



# *Messalonskee School District*

## *Technology Plan 2009-2012*

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## Introduction

We view technology as transformative, changing how teachers teach, how students work together and learn, and how schools are organized. Building upon this philosophy, our district will provide the support and infrastructure necessary to promote and increase learning through the use of technology. It is our belief that student learning and effective teaching are enhanced with the use of computer technologies. When learners can skillfully use technology to access, retrieve, use information, and create knowledge, they will be able to interact successfully in a modern environment to achieve their personal, educational, and societal goals.

The Technology Plan that follows is based on our district's educational goals and ensures that the most appropriate technologies are effectively infused into our instructional programs. Our plan also ensures that all students have equitable access to educational technology. The plan demonstrates clear targets for technology use, spells out desired goals for learners, and creates visions for future directions.

**Our district is currently transitioning to a Regional School Unit which will include the China Primary and Middle Schools of the current Union 52 school system. One piece of that transition is the development of a new Regional Technology Plan to include all schools in the involved towns. Thus, the *Messalonskee School District Technology Plan 2009-2012* and the *Union 52 Technology Plan* will be used as a tool in developing that future regional plan.**

# 1. Community and Parental Involvement

The District Technology Planning Committee includes representatives from district technology staff, educators, administrators, students, parents, and community members who all benefit from our investment in technology. The committee's purpose is to review technology plan benchmarks, present needs, and recommend future technology direction for MSAD #47. The committee will meet on a quarterly basis. Members include:

- Dr. James C. Morse, Sr., Superintendent, MSAD #47
- Linda Laughlin, Assistant Superintendent, MSAD #47
- Mark Hatch, Principal, Messalonskee Middle School
- Nancy Reynolds, Principal, James H. Bean School, Sidney
- Connie Packard, Business Manager, MSAD #47
- Jeff Frost, MSAD #47 School Board Member from Sidney
- Larry Brown, MSAD #47 School Board Member from Rome
- Sylvia Jadczyk, Library Media Specialist, Messalonskee High School
- Liz McMahan, Library Media Specialist, Messalonskee Middle School
- Alice vom Orde, Library Media Specialist, SAD #47 District Elementary Libraries
- Cheryl Mercier, Assistant Special Education Director, MSAD #47
- Karen Potvin, Technology Director, MSAD #47
- Rick McFarland, Assistant Technology Director, MSAD #47
- Donald Carter, Technology Technician, MSAD #47
- Paul Pelletier, Technology Technician, MSAD #47
- Claire Moen, Technology Administrative Assistant, MSAD #47
- Gail George, Messalonskee High School Computer and Integration Teacher
- Kim Fish, Messalonskee Middle School Computer Integration Teacher
- Ken Hine, Belgrade Central School Computer Integration Assistant
- Cindy Pierce, Williams Elementary School Computer Integration Assistant
- Dave Boardman, MLTI Teacher Leader & English Teacher, Messalonskee High School
- Pam Prescott, Grades 3 & 4 Teacher, Belgrade Central School
- Joshua Zuckerman, Computer Consultant, Community Member
- Chris Rhoda, Vice President of IT Services, Thomas College
- Blake Bourque, Messalonskee High School Student
- Rod Carmichael, Messalonskee High School Student

The following strategies will be used to *promote involvement* and *increase communication* with our community and parents.

### *Community*

- Updates, links, courses, surveys, and newsletters on the District Web Site relative to technology
- A secure, district-wide community intranet through a WAN connecting all district schools
- Presentations about technology by students and staff at Board of Directors' meetings
- School Board presentations by students and staff participating in the Maine Learning Technology Initiative Program (MLTI)
- Technology courses, workshops, and Distance Learning offered through the Adult Education Program
- Middle and High School libraries have Internet access and are open and promoted for use outside of normal school hours to students and community members. Users are required to sign the District Acceptable Use Policy (AUP).
- Elementary libraries have Internet access and are open for use outside of normal school hours on a case by case basis. Users are required to sign the AUP.
- Bi-annual district technology fair showcasing the use of technology that promotes learning and achievement
- Speakers with technology expertise sharing their knowledge with students through presentations in school, collaborative on-line experiences, field trips to their workplace, etc.
- Town offices and libraries are provided with technology support through District technology staff and students
- Older computers are offered to community members qualifying for the District free/reduced lunch program
- Yearly meetings are scheduled with voters from each town in regards to the budget process including technology

### *Parents*

- Updates, links, courses, and newsletters on the District Web Site relative to technology
- Showcasing of student and staff projects utilizing technology at school and district events
- Parental access to students grades and assignments through the district student information system, Power School
- E-mail between teachers and parents about curriculum, instruction and assessment of student learning
- Meetings for students and parents wishing to participate in the Take-Home Agreement as part of the MLTI
- Compliance to our acceptable use policy by all users
- Development of parent surveys to gather information on how they feel our current technology impacts their child's learning by 2010

## 2. Vision

### *MSAD 47 District Philosophy*

The Messalonskee School District (MSAD 47) promises to help each child entrusted to its care become a well-adjusted, informed, productive, and responsible citizen of the world community.

To this end, the district's educators, parents, and citizens are committed to offering a liberal education built on a flexible, integrated curriculum which not only stresses the basic tools of learning and respects the integrity of the traditional disciplines, but also emphasizes the application of these tools and the interrelations of subject areas.

We believe that each student must be assisted in acquiring a high level of literacy which reflects a strong foundation of knowledge, skills, and attitudes; promotes life-long learning; and facilitates adaptation to change. Rapidly evolving technologies and an increasingly complex society require that students learn a sophisticated common body of knowledge and skills. This foundation of learning is the key to adaptability in the face of change. It should take precedence over early specialization.

We believe it is the responsibility of the district to challenge each student to achieve the fullest potential, to develop a positive self-image, to appreciate the uniqueness of self, and to recognize the value of other individuals. Furthermore, the district must help each student to stretch personal aspiration, while developing intellectual curiosity. Towards these ends, we are committed to promoting opportunities for success for all students.

As a graduate of our educational program, each person should be able to:

- demonstrate an ability to solve problems;
- communicate effectively in writing and orally;
- research, analyze, and use information appropriately;
- appreciate aesthetic aspects of world cultures through art and music;
- recognize and practice healthful living;
- understand the fragility of our environment; and
- make responsible decisions that contribute to the common good, our democratic ideals, and global interdependence.

Upon graduation, Messalonskee students should leave fully capable of competing and interacting successfully in the world community, while also pursuing a satisfying quality of life and contributing to the general betterment of others.

### *Technology Vision for MSAD 47*

We view technology in education as a tool for transformation that causes changes in how teachers teach, how schools are organized, and how students work together and learn.

### *Technology Mission for MSAD 47*

We will provide the support and infrastructure necessary to promote and increase learning through the use of technology.

We will integrate technology into every area of the curriculum where its use is an appropriate choice to achieve a given educational standard. Technology will also be used to expand the courses offered to students. Staff will receive the support and training necessary to achieve the integration of technology.

We will make every effort to provide and maintain the technology needed in all district services to find the most efficient solutions for routine tasks, including but not limited to: email, administrative tasks, library resources, web services, and communications.

We will continue to explore and evaluate emerging technologies.

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### 3. Goals

**To help achieve our district learner goals and to meet the updated state learning standards, the district is in the process of implementing the K-12 Information and Communication Technology (ICT) Standards, designed to be easily integrated into all curricula areas of instruction. The standards cover:**

- Communicating, inquiring, decision-making, and problem-solving
- Foundational operations, knowledge, and concepts

**To enable learners to meet the updated K-12 ICT Standards, MSAD 47's major district technology goals are:**

1. All educators will effectively use technology to enhance teaching and learning.
2. Every student will have ready access to technology which supports the learning, application, and demonstration of the Maine Learning Results (MLRs) via successful performance within the Local Assessment System (LAS).
3. Technology will be integrated into all curriculum levels to support the implementation of the MLRs.
4. MSAD 47 will develop a continuous process of evaluation and accountability for the use of educational technology as: a teaching and learning tool, a measurement and analysis tool, and a fiscal management tool.

**For a systematic action plan based on above goals and a listing of all necessary funding costs and sources associated with meeting these goals, see Section 8.**

## 4. Identify Necessary Technology

Current and future technology needs are determined through physical inventory assessments, staff and student technology skills self-assessment data surveys, and technology committee recommendations.

### Current Hardware, Software, and Staffing Assessment

**1. Messalonskee High School (MHS)** serves approximately 1100 users.

**Hardware/Infrastructure:** *The network is a GB fiber/100MB Cat5e backbone, 10/100MB to the classrooms, and the internet access is provided through UNET via shared 100MB line (Time Warner) originating from MMS. Time Warner Cable service is in each classroom and library in all buildings. There are Linksys wireless routers covering the classrooms and offices. All teachers have an Apple MacBook laptop (MLTI), and there are 15 mobile carts with 10-24 laptops (total 250 Dell, 24 HP, and 10 Apple), an LCD projector (Dell) and networked printer (HP or Dell) available for staff and student use. The library has 14 Dell desktops and 12 Dell laptops for staff and student use, as well as various video equipment. There are also computer labs: Room 205 (12- Dell Gx270 desktops and HP4050N printer), Room 203 (25- Dell Gx 270 desktops and HP4050N printer), Room 250 (8-Dell Gx260 desktops, 3-Apple G5 desktops, 2-MiniDV/VCR/DVR, Digital Video cameras and still cameras, external HDD and DVD/RW drives, HP Scanners, and Distance Learning Equipment). Administration and office staff have a combination of Apple and Dell laptops and desktops, with networked HP and Savin printers and Toshiba and Konica copiers. There is a Phillips Divar Closed Circuit surveillance camera system with 8 cameras in the first level of the building, and 3 Axis IP Cameras on the building's exterior. Some classrooms have additional equipment, such as Tech Ed with 10 Dell desktops, and an Agfa Snapscan for use with the Plasma Cutter, Music with a mini-lab of Apple and Dell desktops and midi devices, a networked HP Color LaserJet printer, and a scanner. The Math Department has 20 Dell GX280 desktops. The Yearbook office has 2-Dell laptops and an HP LaserJet printer, Art has a Dell GX260 desktop, two tablets, a scanner, and two inkjet printers, and Physics has 6-Dell GX1 desktops and an HP 4050N printer. There are 3- faxes in offices, each on a dedicated plain old telephone service (POTS) line, and there is a telephone extension in every classroom and office. The phone system is a Sprint Protégé MTX, with an integrated Protégé Procom Voicemail system, utilizing seven POTS lines. The bells and speakers are an integrated Rauland system. The fire alarm system utilizes two dedicated POTS lines, and the climate control utilizes one dedicated POTS line.*

**Software:** Microsoft Office Professional 2003 is the standard desktop publishing software for the building, although the Neo Office and iWorks Suites are also utilized. Powerschool Premiere 5 is the Student Information System; Advanced Data Systems (ADS) Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software; FirstClass is the email system; and instructional software titles include: 3D Topo, Adobe Photoshop, Choices, College View, EM Field Physics, Employment Communication, Educational Program for Gifted Youth (EPGY) - Math, Financial Fitness for Life, Geometers Sketchpad, Glencoe Accounting, Google Earth, Gramma, Graphical Analysis, Graphs & Tracks, Green Globes & Graphing Equations, Hands On Universe, iLife, Inspiration, Kurzweil 4000, Latin Through the Ages, Logger Pro, Macromedia Studio MX 2004, Mathematica, MathType, Moodle, Noteshare, On Your Own in Central City, Paint Shop Pro, Personal Effectiveness, Personal Finance Trivia Challenge, Photostory, Resolving Problems & Conflicts, Roman Technology, Scholastic Reading

Inventory, Sketch Up, Skills Connection, SOS Games, The Technology of Communication, TI Interactive, Tobacco Explorer, and Virtual Job Shadow.

**Staffing:** Technology staff includes one full time technology/integration teacher, two integration assistants (Ed Tech III positions) that share one full time position, and the three technical staff that services all district buildings as needed.

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**2. Messalonskee Middle School (MMS)** serves 567 students in grades 6-8. There are 70 members of MMS staff. MMS is involved in the Maine Learning Technology Initiative (MLTI) a State of Maine, Department of Education program to provide laptops to all Maine students in grades 7 & 8.

**Hardware/Infrastructure:** *The network is a GB fiber backbone, 10/100MB to the classrooms, and the internet access is provided through UNET via shared 100MB line (Time Warner). Time Warner Cable service is in each classroom and library within the building. There are Apple Airport and Airport Extremes, and Linksys wireless routers covering the classrooms and offices. There are many servers in the server room: Virtual Center 2003 which Manages VMWare Cluster (Server 2003); FirstClass Mail Server (Server 2003); PowerSchool Server (Server 2003); Zenoss Network Monitoring Server (Centos 5 Linux); Shoreware Voice Over Internet Protocol (VOIP) Server (Server 2003); Axis Camera Station Recording Server (Server 2003); MHS Staff File Server (Server 2000); MHS Student File Server (Server 2000); Proxy Server (Centos Linux); IPCOP Firewall for public PAC Network (Custom OS); Untangle Firewall Server (Custom OS); Altiris Imaging Server (Server 2003); Sonicwall Firewall for VPN Connectivity to BCS and JHB; Dell cx300 SAN array for file storage; and 2-Dell ESX servers running VMWare to host several virtual servers including: Zone information server (Edustuctures) (Server 2003); Bus Garage File server (Server 2000); Helpdesk server (GLPI, GPL License) (Centos 5 Linux); Web Server (Server 2000); Staff File Server (Server 2000); Student File Server (Server 2000); Moodle Server (Centos 5 Linux); Nutrition Terminal Server (Windows XP); Inventory Server running OCSNG (Centos 5 Linux); ODBC Connectivity Server (Windows XP); PowerSchool Sandbox (Server 2003); VersaTrans Server (Server 2003); WES File Server (Server 2003); ZoneMinder, GPL Camera Recording Server (Centos 5 Linux). Other equipment includes: Class connection PA system; Shoreware VOIP Equipment; 16 Channel IP KVM connected to most of the physical servers. All 7<sup>th</sup> & 8<sup>th</sup> grade teachers have an MLTI Apple iBook laptop, and 6<sup>th</sup> grade teachers have Apple MacBooks. For each of our 7<sup>th</sup> & 8<sup>th</sup> grade students, there is an MLTI Apple iBook laptop, housed in mobile carts that hold 8-24 iBooks each (total 394). The library has 16 Dell desktops and an HP3050DN networked color laser printer for staff and student use, as well as various video equipment, and an integrated Rauland Digital/Video system with remote access in all classrooms through the 32" TVs with Rauland boxes mounted in each location. There are digital video and still cameras, and LCD projectors on carts w/speakers available for checkout in the library. There are computer labs: Room 202 (25- Dell Gx260 desktops with a Savin MLP45 printer), and Room 102 (24- Apple iMacs with an HP4100N printer and a Toshiba copier). Tech Ed has a computer lab of 10 Dell desktops with various modular experiential equipment connected, Music has 2- Dell desktops with midi devices and an HPDeskjet printer. There are mobile carts with 8-24 Apple iBooks each (total 230) on the first floor for 6<sup>th</sup> grade use, providing 1:1 computer to student access. One Promethean Interactive White Board is mounted in a 3<sup>rd</sup> floor math classroom for use with students. Administration and office staff have a combination of Apple and Dell laptops and desktops, with an HP 4000N printer, and Konica and Toshiba copiers for staff and student use. There is a Phillips Divar Closed Circuit surveillance camera system with 8 cameras in the first level of the building*

and 4 exterior cameras. There is a motion sensing security alarm system with keypads at the front, rear, and gymnasium exits. There is one fax machine in the main office on a dedicated phone line. The phone system is ShoreTel (VOIP) with integrated voicemail, utilizing a dedicated PRI (T1) and two POTS lines, and there is an extension in every classroom and office. The bells and speakers are a Valcom system, and there is a Sapling master clock system. The elevator is on a dedicated POTS line, the fire alarm uses two dedicated POTS lines, and the climate control uses one dedicated POTS line.

**Software:** iWorks and Neo Office are the standard Desktop Publishing software used with the Apples; Administration, Library and Office staff use Microsoft Office 2000; Powerschool Premiere 5 is the Student Information System; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software; FirstClass is the email system used with staff, and StudyWiz accounts are used for grade 7 & 8 students; and instructional software titles include: EPGY- Math, Geometers Sketchpad, Glencoe Life Science, GeoGebra, Graphical Analysis, Green Globes, iLife Suite, iWorks Suite, Logger Pro, MapMaker's Toolkit, Math Essentials, Moodle, Noteshare, Nutrition Connection, Publisher 2000, Tesselmania Deluxe, and Type to Learn.

**Staffing:** Technology staff includes one full time teacher, one Integration Assistant (Ed Tech III position) that covers one period per day, two database managers, one Administrator, one administrative assistant, and three technical staff that services all district buildings as needed.

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**3. James H. Bean School Elementary School (JHB)** is a Kindergarten to 5th grade school serving 363 students and 56 staff members.

**Hardware/Infrastructure:** *The network is a 100MB/GB fiber backbone, 10/100MB to the classrooms, and the internet access is provided through MSLN via two - T1 line (Fairpoint). There is one Microsoft Windows 2000 file server, and an HP DLT tape backup device that backs up the server each night. There are Linksys wireless routers covering the classrooms and offices. All teachers have an Apple MacBook laptop. Students utilize 40 Dell laptops in the classrooms. The library has 5 Dell desktops for staff and student use, as well as a Savin multifunction printer and various video equipment. There are digital video and still cameras available for checkout in the library. There is a computer lab with 25- Dell Gx1 desktops, an HP4200N laser printer and a Dell 3100CN color laser printer. One Promethean Interactive White Board is mounted in a Kindergarten classroom for use with students. Administration and office staff have a combination of Apple and Dell laptops and desktops, with networked HP, Dell, and Savin printers and Toshiba and Konica copiers for staff and student use. There is one fax machine in the main office on a dedicated phone line, and a telephone in every classroom and office. The phone system is Sprint Protégé, and has an integrated Protégé Procom Voicemail system, utilizing three POTS lines. The fire alarm uses one dedicated POTS line, and shares the fax line as a secondary POTS line. The intercom system is Valcom. The HubManager card swipe system is on the front and rear entrances.*

**Software:** Open Office is the standard Desktop Publishing software for the building, while Administrative Staff use Microsoft Office 2000; Powerschool Premier 5 is the Student Information System; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software; FirstClass is the email system; and instructional software/subscription titles include: A to Zap, Creating Patterns from Shapes, Data Explorer, EarthBrowser, Easybook, EPGY-Math, Everything Weather, Five a Day Adventure, GeoGenius

USA, Grouping and Place Value, Jump Start Typing, Kid Pix, Kidspiration, Learn About Machines, Learn About Weather, Letterbugs, Moodle, Numbers and Counting, Numbers Undercover, Reading A-Z, Starfalls, Table Top, Tumblebooks, and Vowels Long and Short.

**Staffing:** Technology staff includes one part-time Integration Assistant (Ed Tech III position), and three technical staff that service all district buildings as needed.

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**4. Belgrade Central School (BCS)** is a Pre-Kindergarten to 5th grade school serving 299 students and 32 staff members.

**Hardware/Infrastructure:** *The network is a 100 MB Cat5e backbone, 10/100MB to the classrooms, and the internet access is provided through MSLN via two -T1 lines (Fairpoint). Time Warner Cable service is in each classroom and library within the building. There is one Microsoft Windows 2000 file server, and an HP DLT tape backup device that backs up the server each night. There are Linksys wireless routers covering the classrooms and offices. All teachers have an Apple MacBook laptop. Students utilize 40 Dell laptops in the classrooms. The library has 5 Dell desktops and a Savin multifunction printer for staff and student use, as well as various video equipment. There are digital video and still cameras available for checkout in the library. There is a computer lab with 25- Dell Gx1 desktops, an HP4200N laser printer and a Dell 3100CN color laser printer. One Promethean Interactive White Board is mounted in the Science Lab for use with students. Administration and office staff have a combination of Apple and Dell laptops and desktops, with networked HP, Dell, and Savin printers and Toshiba and Konica copiers for staff and student use. There is one fax machine in the main office on a dedicated POTS line, and a telephone extension in every classroom and office. The phone system is Sprint Protégé, and has an integrated Protégé Procom Voicemail system, utilizing three POTS lines. The fire alarm uses two dedicated POTS lines. There is a 3 camera internal surveillance system. There is a paging system. The HubManager card swipe system is on the front and rear entrances.*

**Software:** Open Office is the standard Desktop Publishing software for the building, while Administrative Staff use Microsoft Office 2000; Powerschool Premier 5 is the Student Information System; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software, and instructional software/subscription titles include: EPGY-Math, Jump Start Typing, Kid Pix, Kidspiration, Learn About Plants, Learn About Weather, Letterbugs, Moodle, Numbers Undercover, Reading A-Z, Solar System, Starfalls, Sunbuddy Writer, Tabletop Jr., Tumblebooks, and Vowels Long and Short.

**Staffing:** Technology staff includes one part-time Integration Assistant (Ed Tech III position), and three technical staff that service all district buildings as needed.

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**5. Atwood Elementary School (ATW)** is a Pre-Kindergarten to 2nd grade school serving 229 students and 40 staff members.

**Hardware/Infrastructure:** *The network is a 100MB Cat5e backbone, with 10/100MB to the classrooms, and internet access provided through UNET (Time Warner) originating from MMS. Time Warner Cable service is in each classroom and library within the building. There is one Microsoft Windows 2000 file server. There are Linksys wireless routers covering the classrooms and offices. All teachers have an Apple MacBook laptop. Students utilize 35 Dell laptops in the*

classrooms. The library has 5 Dell desktops and a Savin multifunction printer for staff and student use, as well as various video equipment. There are digital video and still cameras available for checkout in the library. There is a computer lab with 25- Dell Gx1 desktops, an HP4200N laser printer and a Dell 3100CN color laser printer. One Promethean Interactive White Board is mounted in a Kindergarten classroom for use with students. Administration and office staff have a combination of Apple and Dell laptops and desktops, with networked HP, Dell, and Savin printers and Toshiba and Konica copiers for staff and student use. There is one fax machine in the main office on a dedicated POTS line, and a telephone extension in every classroom and office. The phone system is Sprint Protégé, and has an integrated Protégé Procom Voicemail system, utilizing three POTS lines. The fire alarm system shares two dedicated POTS lines with the adjacent Tapley Building. The intercom system is Valcom. The HubManager card swipe system is on the main entrance.

**Software:** Open Office is the standard Desktop Publishing software for the building, while Administrative Staff use Microsoft Office 2000; Powerschool Premier 5 is the Student Information System; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software, and instructional software/Subscription titles include: A to Zap, EPGY-Math, Funny Monsters for Tea, Kid Pix, Kidspiration, Moodle, Numbers Undercover, Reading A-Z, Starfall, Tumblebooks, and Zap Around Town.

**Staffing:** Technology staff includes one part-time Integration Assistant (Ed Tech III position), and three technical staff that service all district buildings as needed.

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**6. Williams Elementary School (WES)** is a 3rd to 5th grade school serving 229 students and 40 staff members.

**Hardware/Infrastructure:** The network is a 100MB Cat5e backbone, 10/100MB to the classrooms, and internet access is provided through UNET (Time Warner) originating from MMS. This is the location of the Town of Oakland fiber hub, developed and installed in conjunction with the City of Waterville and Town of Winslow through a Homeland Security Grant (camera surveillance project). Time Warner Cable service is in each classroom and library within the building. There is one Microsoft Windows 2003 file server, and integrated HDD/tape backup devices that backs up the district's servers each night. There are Linksys wireless routers covering the classrooms and offices. All teachers have an Apple laptop (MacBook). Students utilize 40 Dell laptops in the classrooms. The library has 5 Dell desktops for staff and student use, as well as various video equipment. There are digital video and still cameras available for checkout in the library. There is a computer lab with 25- Dell Gx1 desktops, a Xerox laser printer and a Dell 3100CN color laser printer. One Promethean Interactive White Board is mounted in the Science Lab for use with students. Administration and office staff have a combination of Dell laptops and desktops, with networked HP, Dell, and Savin printers, and Konica and Toshiba copiers for staff and student use. There is one fax machine in the main office, and a telephone extension in every classroom and office. The phone system is Sprint Protégé, and has an integrated Protégé Procom Voicemail system, utilizing three POTS lines. The elevator has a dedicated POTS line, and the fire alarm uses two dedicated POTS lines. There is a paging system. The HubManager card swipe system is on the front and rear entrances.

**Software:** Open Office is the standard Desktop Publishing software for the building, while Administrative Staff use Microsoft Office 2000; Powerschool Premier 5 is the Student Information

System; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; Alexandria is the Library software; FirstClass is the email system; and instructional software/subscription titles include: EPGY-Math, GeoGenius USA, Jump Start Typing, Kid Pix, Kidspiration, Reading A to Z, Starfall, Table Top, Tumblebooks, and Vowels Long and Short.

**Staffing:** Technology staff includes one part-time Integration Assistant (Ed Tech III position), and three technical staff that service all district buildings as needed.

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**7. Memorial Hall** is the location of the off-site district tutorial program. There is one teacher who services 5 – 15 students daily.

**Hardware/Infrastructure:** *The network is a 100MB Cat5e backbone, with 10/100MB to the desktop, and internet access is provided through UNET (Time Warner) originating from MMS. Time Warner Cable service is in the classroom. There is a Linksys wireless router. The teacher has an Apple laptop, and students access a Dell GX260 desktop and two Apple iMac desktops and a networked printer. The phone system is ShoreTel VOIP, utilizing a shared PRI (at MMS), with a single IP extension in the classroom.*

**Software:** Neo Office is the standard Desktop Publishing software for the Apples; Powerschool Premiere 5 is the Student Information System; Alexandria is the Library software; FirstClass is the email system; and instructional software titles include: EPGY- Math, iLife Suite, iWorks Suite, Moodle, Noteshare, PLATO Learning, and Type to Learn.

**Staffing:** The three technical staff services all district buildings as needed.

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**8. Nutrition** has employees in each school (total of 17), and each location is using a NutriKids Point Of Sale (POS) system, including a prepay system utilizing MyNutriKids.com online account payments for families.

**Hardware/Infrastructure:**

- **MHS:** *Food Service uses 2-networked POS stations with touch screens, PIN pads, cash registers, and a local printer. There is a Dell Desktop, local printer, and a phone extension in the office.*

- **MMS:** *Food Service uses 2-networked POS stations with touch screens, PIN pads, cash registers, and a local printer. There is a Dell Desktop, local printer, and a phone extension in the office.*

- **JHB:** *Food Service uses 1- networked POS station with a touch screen, cash register, and a local printer. There is a Dell Desktop, local printer, and a phone extension in the office.*

- **BCS:** *Food Service uses one networked POS station with a touch screen and cash register. There is a Dell Desktop, local printer, and a phone extension in the office.*

- **ATW:** *Food Service uses one networked POS station with a touch screen and cash register. There is a Dell Desktop, local printer, and a phone extension in the office.*

- **WES:** *Food Service uses one networked POS station with a touch screen and cash register. There is a Dell Desktop, local printer, and a phone extension in the office.*

**Software:** All desktops have Microsoft Office 2000 Professional as the desktop publishing suite; FirstClass is the email system; and Nutrikids is the POS software package.

**Staffing:** The three technical staff services all district buildings as needed.

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**9. Central Office** is the location of District level support staff in the renovated John S. Tapley Building. The staff represents the following departments: 4 in Administrative offices, 4 in Business offices, 1 in Food Services, 1 in Maintenance, and 10 in Special Services.

**Hardware/Infrastructure:** *The network is a 100MB Cat5e backbone, with 10/100MB to the desktop, and internet access is provided through UNET (Time Warner) originating from MMS. Time Warner Cable service is in the three conference/board rooms within the building. There are 2- Microsoft Windows 2000 servers, and a Quantum LTO tape backup device that backs up the servers each night. There are Linksys wireless routers covering the conference rooms and offices. Administration and office staff have a combination of Dell and Apple laptops and desktops, with networked HP and Xerox printers, and Savin, Konica, and Toshiba copiers for staff use. There is a Mimeo Interactive System for use in meetings. There are two fax machines on dedicated POTS lines. The phone system is Sprint Protégé, and has an integrated Protégé Procom Voicemail system (shared with the Atwood Primary School), utilizing four POTS lines, with and an extension in each office. The fire alarm system shares two dedicated POTS lines with the adjacent ATW Building. The HubManager card swipe system is on the main entrance, and there is a camera mounted to the handicapped accessible electronic door system on the end of the building.*

**Software:** All desktops have Microsoft Office 2000 Professional as the desktop publishing suite; FirstClass is the email system; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package. Apple laptops were purchased through participation with the MLTI high school expansion program.

**Staffing:** The three technical staff services all district buildings as needed.

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**10. Transportation** is located in the Bus Garage, where the district vehicles are maintained, and the transportation services are supported. There are 3 administrative staff, 3 mechanics, 21 regular and 20 spare drivers.

**Hardware/Infrastructure:** *The network is a 100MB Cat5e backbone, with 10/100MB to the desktop, and internet access provided through UNET via 100MB connection (Time Warner) originating from MMS. Administration and office staff have a combination of Dell laptops and desktops, with networked HP B&W and color LaserJet printers, and a Konica copier for staff use. The phone system is ShoreTel VOIP, utilizing a shared PRI (at MMS), with an extension in each office. There is a dedicated fax machine on a dedicated POTS line. There is a radio circuit which all buses access locally for emergency purposes that tie into each school building's dedicated transportation phone. Each bus is equipped with a cellular telephone for emergencies during long distance trips, and surveillance cameras at each end. Three Axis surveillance cameras cover the exterior of the building.*

**Software:** All desktops have Microsoft Office 2000 Professional as the desktop publishing suite; FirstClass is the email system; ADS Profund Sequel is the accounting software; Citrix is the remote desktop connection package; QuickBooks is the inventory/billing software; and VersaTrans is the transportation routing software package.

**Staffing:** The three technical staff services all district buildings as needed.

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**11. Maintenance** is located adjacent to the Bus Garage. There is 1 Administrator, and 4 staff which support all district staff, buildings, grounds, and equipment.

**Hardware/Infrastructure:** *The network is a combination GB fiber and Cat5e backbone, with 100MB to the desktop, and internet access provided through UNET via 100MB connection (Time Warner) originating from MMS. Administration and office staff have a combination of Dell laptops and desktops, with networked HP printers, and Toshiba copiers for staff use. The phone system is ShoreTel VOIP, utilizing a shared PRI (at MMS), with an extension in each office.*

**Software:** All desktops have Microsoft Office 2000 Professional as the desktop publishing suite, and FirstClass is the email system.

**Staffing:** The three technical staff services all district buildings as needed.

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**12. Technology Services Building** is a storage/repair location for the Technology Department, as well as general storage for the district. There is a conference room in the basement where various district meetings are held.

**Hardware/Infrastructure:** *The network is a 100MB Cat5e backbone, with 10/100MB to the desktop, and internet access provided through UNET via 100MB connection (Time Warner) which is shared with the adjacent Central Office building via Cat5E cabling. Time Warner Cable service is in the board room within the building. There is a Linksys wireless router covering the conference room. There is one phone extension in the conference room, shared with the PBX system at Central Office. The building is used primarily for meetings and storage.*

## **Future Needs Assessment- Hardware, Software & Staffing**

Our goal is to support the learners in our community by maintaining a replacement cycle for equipment and software. We strive to support our learners by evaluating the software and staffing needs in order to satisfy the changing needs as technology develops over time. We will provide professional development opportunities to further promote technology integration and collaboration.

We will continue to explore cost-savings alternatives, including utilizing open source applications, accessing online subscriptions, accepting equipment donations from the community, and purchasing MLTI equipment to increase our 1:1 computer to student ratio. We will continue to replace our POTS lines with T1 lines and/or connections to our VOIP system where appropriate. We will continue to expand our secondary and adult education course offerings via virtual courses at the high school. We will continue utilizing virtualization (servers and workstations). We will continue to evaluate and enhance our wireless infrastructure to include public and private Wi-Fi access. We will also explore the options of connecting our remote buildings (James H Bean School and Belgrade Central School) with fiber-optic cabling or wireless technologies.

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## **5. Collaboration with Adult Literacy Service Providers And Other Community Organizations**

### **Adult Education Program**

A collaborative effort between the Messalonskee and Waterville Adult Education Programs supports the area adult educational needs. Our district facilities and equipment are used for support of technology needs. Community requests for new courses are encouraged. Community and school personnel are encouraged to develop trainings and courses through the Adult Education program. Program offerings are published on school web pages and in the Adult Education Brochure. Recent offerings included digital photography, web design, Microsoft Office Certification, and the use of PLATO (guided by classroom teachers) for individualized educational plans. Many courses offer high school diploma credit.

### **Community Personnel Resources**

This plan will establish a Community Resource Database that will include a directory of community members that are willing to share an area of expertise and/or experience with our school community. This database will increase access to additional community resources. Contributors may be parents, teachers, students, alumni, District residents, or anyone else who has an interest in sharing expertise, experiences, careers, hobbies, and/or skills with our school community.

### **Communication with Parents**

The adoption of PowerSchool allows us to communicate a timely and accurate record of our students' performances, grades, attendance, and assignments to parents. Web based subscriptions such as Atomic Learning allow parents access to databases and course tutorials along with our students. Our district web site also keeps the community informed as to all school activities and policies at each grade level.

### **Library Usage**

District libraries provide members of our community access to basic research tools and Internet connections. All have access to Marvel and paid subscriptions to online databases and periodicals. Staff is available to assist in using our resources.

### **Use of School Facilities by the Community**

The district's computer labs, mobile laptop carts and other technology resources are available for use by community members and groups. The use of our facilities by civic groups, local governments, colleges, and adult education programs is incorporated in our Building Usage Plan.

### **Students as Teachers and Technology Supporters**

Student technology teams are being utilized at the middle school and high school. These teams are trained and earn credits for supporting teachers with equipment and technology needs. Currently, students are helping teachers and community members with their technology needs.

## 6. Strategies for Improving Academic Achievement and Teacher Effectiveness

The Messalonskee School District strives to use technology to support teacher effectiveness and improve academic achievement through a comprehensive technology plan. An array of software is used to collect, analyze, inform, and make quality instructional decisions.

- In 2007-08 PowerSchool became our data warehouse for our local assessment system. Teachers and administrators are now able to analyze student progress related to Maine's Learning Results.

The results drive instruction, professional development, and related purchases. PowerSchool data will be presented to parents through a secure web-based portal by 2010.

In addition to our new information system, District 47 uses other databases and screening tools to guide program decisions. Our gifted and talented program uses Microsoft Access to collect the results of screening tests to determine eligibility. This information will be exported to PowerSchool. The district's special education program adopted "Case-e" in the 2006-07 school to manage and support the vast quantities of information needed to develop an I.E.P. PowerSchool and Case-e transport data electronically. Our libraries use Alexandria, electronic catalogs, to provide teachers and students immediate access to information, improving the effectiveness of teachers and ease of use for students. In the future, catalogs will be accessible from home. Many teachers are utilizing Moodle and other similar tools to develop online instruction and staff collaboration.

- Annually, the district will survey students and staff for feedback related to instructional effectiveness and adequacy of available hardware, software, and professional development needs.

## 7. Integration of Technology with Curricula, Instruction, and Assessment

Efforts for technology integration are focused in each of the following areas:

### **Focus #1: The use of technology to access, use, and synthesize information**

#### *Current and Continuing Practices*

- Online collaboration tools (examples: email, Moodle, bulletin boards, blogs)
- Sharing of resource materials (examples: dynamic portals, teacher and student created web sites)
- Development of products to show understanding of information (concept mapping with Inspiration, word processed documents, multimedia presentations, web publishing, desktop publications, database development, and spreadsheet analysis)
- Media specialists, teachers, and computer integration staff support this process
- District and building policies outlining the acceptable use of computers, our network, and the World Wide Web
- The usage of District guidelines on how to cite sources and use MLA formatting
- Lessons on effective information literacy, Boolean operators, subject trees, library resources, and online databases

#### *Future Steps*

- Technology staff will continue to provide professional development courses and training in areas of Web development, presentation evaluation, database development, multimedia production, and will support the use and creation of web quests and collaborative tools
- Work with students and teachers to ensure the implementation of new developments in our Acceptable Use Policy
- Increase availability of student access to computers to effectively support student learning and research capability

### **Focus #2: Use of technology specific to Curriculum**

#### *Current Practices*

- Evaluation of software on how well content assists students in meeting standards and on how well the software is designed
- Subject specific software/online subscriptions are purchased and utilized to provide support for all curriculum areas K-12
- Teachers use Neo Office, Open Office, iWorks, iLife, and Microsoft Office suites as tools for instruction and learning, when integrating learning standards, and for creating multimedia presentations
- Technology course offerings include Advanced Placement (AP) Computer Programming, Computer Aided Design (CAD), Keyboarding, Visual Media, Web Design, Online Collaboration Tools, Desktop Publishing, Publication and Design Application, and Microsoft Office Certification

#### *Future Steps*

- Increase access to hardware and software for elementary teachers and students to integrate technology as a classroom tool
- Pilot more online/web based course offerings

- Train teachers and support staff in teaching online courses
- Provide more funding for curriculum specific software/subscriptions where needed
- Increase opportunities for teachers to train teachers on integrating curriculum specific programs/websites
- Increase online subscriptions for instructional and research purposes
- Develop an online curriculum center to assist teachers in modifying lesson plans to include a technology component when appropriate

### **Focus #3: Technology to support assessment for learning**

#### *Current Practices*

- Local assessment system data (LAS) is being stored electronically K-12
- Assessment data is being used for student placement and to inform instruction
- EveryDay Math assessment software is being used to create alternative K-5 math assessments
- SAT online practice tests
- Northwest Education Association (NWEA) testing software is being used for reading and math assessment grades 3-10
- PowerTeacher Gradebook is being used to store student grades, common assessments, and to develop reports to analyze student performance

#### *Future Steps*

- Student electronic portfolio development
- Communicate Maine Learning Results performance of each student to all stakeholders

### **Focus #4: Technology to remediate learning**

#### *Current Practices*

- Summer Academy and an extended school day has been implemented where technology is heavily used
- Special education staff uses assistive technology options to support student learning
- Classroom and learning center modifications include use of headphones with online resources and textbook CDs
- Reading is FAME students utilize Playaways, digital books on individual devices, in conjunction with the printed text
- Remedial help is provided to students through the use of Reading A-Z online subscriptions, text to speech applications with I-Books and purchase of E-books available in the libraries
- EPGY-Math software is used to help provide students with individual and differentiated learning

#### *Future Steps*

- Increase online subscriptions and download or purchase digital audio books
- Investigate additional intervention strategies in all instructional areas
- Develop further usages of technology to assist with our comprehensive district literacy curriculum efforts
- Develop web based courses to support students who need more time to complete a course or as an option in our Summer Academy



# *Messalonskee School District*

## *Technology Plan 2009-2012*

### 8. Technology Type and Costs, and Coordination with Funding Resources

#### Goal I

**All educators will effectively use technology to enhance teaching and learning.**

Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Provide all district educators assistance to increase their use of technology when developing engaging projects and lesson plans aligned with Maine Learning Results.	Create portals listing files and online resources for teachers and students to access learning tools.	Administrators, Computer Integration Specialists, Library Media Specialists, and Web Team members	Servers, software, training, \$10,000	Local, State, Federal, and Grant funds	2009-12
	Provide professional development on the use of technology tools and technology resources on an ongoing, daily basis, as well as through in-house courses, online courses, short seminars, and workshops.	Administrators, Computer Integration Specialists, Library Media Specialists, and Web Team members	Materials to effectively advertise all professional development opportunities, \$5,000	Local, State, Federal, and Grant funds	2009-12
	Post effective, engaging, and challenging uses of technology being developed by all district educators.	Teachers and Tech Team	Templates, server space, training, \$5,000	Local	2009-12
	Offer professional learning time for teachers to develop lessons, units, and assessments that use technology to transform the learning process.	Administrators	Purchased time, workshop days, \$20,000	Local, State, Federal, and Grant funds	2009-12
	Provide opportunities to attend conferences, workshops, and professional development offerings to support technology integration.	Administrators	Substitutes, registration fees, transportation, hotel, food, \$20,000	Local, State, Federal, and Grant funds	2009-12
	Develop and offer a Summer Technology Institute for staff.	Computer teachers and technical staff	Purchased time, \$5,000	Local	2009-12



# *Messalonskee School District Technology Plan 2009-2012*

## Goal I

Continued. All educators will effectively use technology to enhance teaching and learning.					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Assess staff technology skills in the areas of curriculum, assessment, instruction, communication, information, and productivity.	Survey staff to determine training and professional development needs.	Administrators, faculty, technology integration staff, and support staff.	Purchased time, \$500	Local	2009-12
	Consider adding a technology integration/competency component as part of the staff evaluation process.	Administrators	Purchased time, \$500	Local	2009
	Incorporate technology goals as part of staff written yearly goals.	Administrators	No cost	Local	2009-12

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# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal II

Every student will have ready access to technology which supports the learning, application, and demonstration of the Maine Learning Results (MLR) via successful performance within the Local Assessment System (LAS).					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Continue to monitor usage of all computer technology equipment used by teaching staff district wide.	Develop systemic procedures that provide continuous feedback for teacher/student use of technology.	Computer teachers and technical staff	Purchased time, \$1,000	Local	2009-12
The district will expand and maintain hardware and operating software to support an efficient and accessible district-wide network.	Evaluate the need for new equipment and infrastructures for the district, including an extranet network to provide home to school connection by: --reviewing current inventories of hardware, infrastructure, and technology personnel. --tracking and reporting technology usage. --upgrading and maintaining hardware and networks to ensure satisfactory operation.	Administrators, Technology Coordinator, Technology Committee		Local	2009-12
The district will expand and maintain software to support instruction.	Upgrade instructional software on an annual basis in coordination with review and revision of curriculum areas of the Maine Learning Results.	Technology Department, Teaching Staff	Purchased time, \$30,000	Local, State, Federal Funds, and Grants	2009-12
	Evaluate and utilize open source software whenever comparable. --post open source software resource list for staff review.	Technology Department and professional staff	\$1,000	Local	2009-12



# *Messalonskee School District Technology Plan 2009-2012*

## Goal II

<b>Continued. Every student will have ready access to technology which supports the learning, application, and demonstration of the Maine Learning Results (MLR) via successful performance within the Local Assessment System (LAS).</b>					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
	Evaluate the need for new district software by: --utilizing the software review procedure. --post the current software inventory. --annually provide staff training on the procedure to procure software.	Technology Department	Purchased time, \$1,000	Local	2009-12
The district will evaluate the availability of personnel to maintain and support an efficient and accessible district-wide network and continuously upgrade software.	Evaluate staffing needed to meet changing technology needs of district schools.	Technology Department	Purchased time, \$1,000	Local	2009-12
Integrate online/virtual classes with current course offerings and look at new courses utilizing new technologies.	Increase opportunities for Messalonskee students to take online/virtual high school courses.	Administration, Guidance	Purchased time, staffing, course materials, \$10,000	Local, State, Federal, and Grants	2009-12
	Increase Adult Education offerings.	Adult Ed Director	Purchased time	Local, State, Federal, and Grants	2009-12
Review and assess the current technology curriculum.	Design new courses in the area of computer technology, as necessary.	Administration, Guidance, and professional staff	Purchased time, \$1,000	Local	2009-12



# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal II

Continued. Every student will have ready access to technology which supports the learning, application, and demonstration of the Maine Learning Results (MLR) via successful performance within the Local Assessment System (LAS).					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Investigate and utilize new methods of course delivery.	Provide access to accredited high school courses not available at MHS.	Administration/ Guidance	Network, materials, registration, etc. \$10,000	Local, State, Federal, and Grant funds	2009-12
	Investigate and provide opportunities for students to take accredited Web based courses.	Guidance and computer staff	\$2,000	Local, State, Federal, and Grant funds	2009-12
Enable 24-7 access to educational resources.	Post syllabi where applicable.	Teachers	Purchased time, \$1,000	Local	2009-12
	Continue online posting of curriculum updates.	Teachers	Purchased time, \$1,000	Local	2009-12
	Improve communications between students, parents, and staff via email, classroom assignments, and grades.	Administration/ Guidance/Teachers	Upgrade infrastructure, purchased time, software, \$5,000	Local	2009-12
	Expand community access to information and resources via school and staff web pages, and increased access to facilities.	Teachers, Library Media Specialists, and Tech dept.	Infrastructure, purchased time, outside resources, security, \$20,000	Local	2009-12
	Expand use of extranet to include remote access to the private network for specific purposes.	Tech Department	\$2,500	Local	2009-12
	Investigate policies and procedures to allow personal equipment on our network.	Administration, Tech Department	Purchased time, \$500	Local	2009



# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal III

<b>Technology will be integrated into all curriculum levels to support the implementation of the MLR.</b>					
<b>Objective</b>	<b>Activities</b>	<b>People Responsible</b>	<b>Resources/Cost</b>	<b>Funding Sources</b>	<b>Timeline</b>
Teachers will be provided consistent training that will support the integration of technology into the curriculum	Maximize use of First Class email for online conferences, web page posting, calendar, collaboration, and customized mail lists.	All district staff	Software, staff, materials, training, \$5,000	Local	2009-12
	Library Media Specialists (LMS) will collaborate with teachers utilizing technology to support student learning.	Library Media Specialists	Purchased time and professional resources, \$2,500	Local	2009-12
	Training will be provided to staff to acquire and utilize technology-based curriculum support materials.	Computer teachers/ Library Media Specialists	Training, materials, purchased time, substitutes, \$10,000	Local, State, Federal, and Grant funds	2009-12
	Professional development time will be reserved for enhancing teacher skills to integrate technology into the curriculum.	Administration	Purchased time, workshop days, \$20,000	Local	2009-12
Provide students with necessary technology skills so they may use technology successfully to support learning in all areas of the curriculum	Resources (netsmartz.org, brochures) and trainers (technology staff, media specialists) to provide students with information on safe Internet practices.	Administration	Outside consultants, \$5,000	Local, State, Federal, and Grant funds	2009-12
	Create opportunities for students struggling with technology to enhance their skills.	Administration/ Guidance, students and teachers	Teachers, \$10,000	Local, State, Federal, and Grant funds	2009-12



# *Messalonskee School District Technology Plan 2009-2012*

## Goal III

<b>Continued. Technology will be integrated into all curriculum levels to support the implementation of the MLR.</b>					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
	Provide adaptive technology for identified students.	Special Ed staff	Special educators and equipment, \$100,000	Local, State, Federal, and Grant funds	2009-12
	Create opportunities for students to use technology effectively to support and transform student learning in the research process (information gathering, synthesis, and presentation of information).	Library Media Specialists and teachers	Materials and equipment (labs), \$42,000	Local	2011-12
Review all curricula for integration of district technology standards	Include technology objectives in all curricula as they are reviewed and updated.	Administration, Teachers and Technology Department	Purchased time, \$10,000	Local	2009-12
	Create web-based technology curriculum center for teachers.	Technology Department and Library Media Specialists	Purchased time, \$2,000	Local	2010-12
	Administer student surveys yearly to evaluate progress toward meeting technology goals.	Computer staff	Purchased time, software, \$1,000	Local	2009-12
	Establish competency guidelines at grades 5, 8, and 11.	Administration and teachers	Purchased time, \$5,000	Local	2009
	Incorporate technology and information literacy skills into curriculum research projects.	Library Media Specialists and teachers	Online subscription software, \$2,000	Local	2009-12



# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal III

<b>Continued. Technology will be integrated into all curriculum levels to support the implementation of the MLR.</b>					
Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Staff will provide students with high quality, technology-based, student-centered learning experiences.	Teachers will share use of technologies and integration strategies with other staff and specialists.	Teachers	Purchased time, \$5,000	Local	2009-12
	Opportunities will be provided for staff to attend workshops and conferences.	Administration	Registrations, hotel, transportation, food, substitutes, \$20,000	Local	2009-12
	Bridges "Choices Planner" will be used for the development of student portfolios and career exploration.	Computer staff	Software, \$1,000	Local and Federal	2009-12
	A centralized collection of resources, content and grade specific, will be developed by staff that includes articles and websites that have been deemed effective and useful in the classroom.	Tech dept, teachers, Library Media Specialists	Purchased time, server space, software, \$10,000	Local	2009
	Time will be provided to develop technology based units and/or assessments around learning results	Administration	Purchased time, \$10,000	Local	2009-12
	The staff will post effective lessons that reinforce the integration of technology in the curriculum.	Teachers	No cost	Local	2009-12



# *Messalonskee School District Technology Plan 2009-2012*

## Goal III

**Continued. Technology will be integrated into all curriculum levels to support the implementation of the MLR.**

Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
	Library Media Specialists will help incorporate technology into the research process	Library Media Specialists	Hardware, software, training, \$40,000	Local	2009-12

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# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal IV

**MSAD 47 will develop a continuous process of evaluation and accountability using technology as a data analysis and reporting tool.**

Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
Provide the technological tools and training needed by all district educators to assist in the collection and analysis of data.	Investigate and evaluate assessment software to support analysis of student achievement data.	Strategic stakeholders	Purchased time, \$1,000	Local	2009-12
	Provide an opportunity for staff to continuously provide feedback on data collection process and tools.	Administration and computer staff	Purchased time, \$1,000	Local	2009-12
	Provide annual training for staff related to current assessment protocols.	Administration and computer staff	Purchased time, \$20,000	Local	2009-12
Use technology, as appropriate, to support the local assessment system.	Develop standards based reports.	Staff	Purchased time, \$20,000	Local	2009-12
	Review the local assessment system and technology policies to assure consistency	Administration			2009-12
	Utilize data management system to collect, analyze, and report student performance.	Administration and computer staff	Hardware, software, training, implementation, \$10,000	Local, State, Federal, and Grant funds	2009-12
	Utilize a SIF compliant system to connect all district databases to maximize efficiency and interoperability.	Tech dept	Hardware, software, implementation, \$10,000	Local, State, Federal, and Grant funds	2009-12



# *Messalonskee School District*

## *Technology Plan 2009-2012*

### Goal IV

**Continued. MSAD 47 will develop a continuous process of evaluation and accountability using technology as a data analysis and reporting tool.**

Objective	Activities	People Responsible	Resources/Cost	Funding Sources	Timeline
	Maximize PowerSchool capabilities to inform staff, students, and parents of progress toward meeting the requirements of LAS.	Administration and computer staff	Hardware, software, training, implementation, \$10,000	Local, State, Federal, and Grant funds	2009-12
Create a process of continuous review of our Technology Vision.	Update the district technology plan.	Regional Technology Committee			2009-12
	Review and analyze staffing to determine if new demands can be met.	Administration, Technology Department			2009-12
	Identify and redefine job descriptions and assign new responsibilities.	Administration, Technology Department			2010
	Identify internal and external processes/stressors that impact technology and communication needs.	Technology Department			2009-12
	Write technology proficiency expectations into district job descriptions for all levels.	Administration and teachers			2009-12



# *Messalonskee School District Technology Plan 2009-2012*

## **9. Supporting Resources**

Technology at MSAD 47 is currently supported by a district level director who supervises a technology team composed of support and instructional personnel. The assistant superintendent supervises the three key district technology positions (database management, equipment management, and instructional management). A comprehensive inventory of all technology equipment (including network infrastructure) and software is maintained and revised regularly. Technology resources are distributed according to technology goals outlined in our district technology plan. The community shares access to our resources through our Adult Education Program, school web sites, parent access to student grades, and participation on the district technology committee.

All technology use is supported by access to our technology staff, access to software (cross-curriculum and curriculum specific), and access to training. Section 4 of this plan details the equipment, software, personnel, and training resources currently provided to support our district and projects future needs to meet goals outlined in Section 3 of this plan. Other supporting resources include FirstClass email, Moodle, and web servers that provide access to all employees and students. These systems are heavily used and allow for easy collaboration among students and teachers. Our transportation employees use routing software and equipment to facilitate their services. Our food service employees use point of sale software and equipment that allow students to purchase meals using a pin pad and/or swipe card.

Technology plays a major role in our district. Email allows us to communicate with parents, students, community members, among colleagues, and with individuals world-wide. The use of School Messenger, a web-based communication tool allows us to contact families and daycare providers in the event of an emergency or school closure due to weather, send notices to email addresses, and notify staff of school cancellation or other urgent messages, is also a cost saving tool. Teachers utilize a variety of technological applications to create lesson plans, develop multi-media projects, assess student learning, develop web pages, and to ensure that students fulfill the requirements of the MLR. Administrative and support services use technology to create budgets, perform inventories, complete attendance records, produce report cards and transcripts, as well as communicate repair and inventory requests, and to record cafeteria sales. Technology has expanded library services by improving access to information. MSAD 47 will ensure that students and staff have adequate resources needed to successfully meet all learning standards and will provide for the network infrastructure, computers and peripherals, software, and training needed to meet our responsibilities.



# *Messalonskee School District Technology Plan 2009-2012*

## **10. Steps to Increase Accessibility**

Messalonskee School District will support innovative uses of technology such as interactive white boards, video distribution, various methods of communication, etc. as teachers define their needs within their content areas. The district will provide assistance, time, and personnel to staff who wish to write grants. The staff will share and disseminate quality web sites that support instruction.

For MSAD 47, increased access can be accomplished by providing students with the ability to work seamlessly between school and home technology. Students in our 7<sup>th</sup> and 8<sup>th</sup> grades have 24-7 access to laptops due to the MLTI Project. In order to increase technology available for students at the high school, the district purchased over 15 mobile, wireless laptop labs and will expand these as monitored usage shows the need for increases. Our MacBooks with built-in cameras also allow us the ability to deliver and receive courses that might not normally be offered through the regular classroom environment. High school students also earn credits at our area postsecondary institutions (Thomas College, University of Maine at Augusta, Colby College, and Kennebec Valley Community College) during their enrollment at Messalonskee High School. In order to increase technology available for students at the elementary schools, mobile labs similar to the high school were instituted. At the Middle School, 6<sup>th</sup> graders have 1:1 access to computers through mobile labs in each classroom and the use of computer labs.

- Each school year, additional mobile labs will be added/replaced if supported by funding. We will expand at all levels as needed.

The feasibility of accessing file servers in our schools from the home computing environment is being explored. Email is currently used by all middle school and high school students for sending files between home and school. Elementary school students are being introduced to email in preparation for use at the middle school and high school.

Strategies for stretching technology dollars include monitoring computer usage, leasing, purchasing extended warranties, using remote management tools, and setting life cycles for new computers and planning accordingly. Adequate support provided by our technology staff will also help us to increase the accessibility to technology.

Support for assistive needs is provided throughout our district to students and staff where needed. Recommendations for ergonomically safe working environments are met and adaptive technologies for special need students are also implemented wherever needed.



# *Messalonskee School District Technology Plan 2009-2012*

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

See also sections covering:

- Technology Staffing
- Technology Professional Development
- Technology Integration

Expansion of technology into all areas is ongoing. Methods of integration are reviewed and researched by integration specialists at all school levels. The results are shared with administrators, teachers, and other district staff. District technology standards will be reviewed as part of regular curriculum rewrites in all subject areas and grade levels. An online curriculum center is being developed for teachers to use in their curricula areas (2009-10). Efforts to assess all students for assurance that they are meeting technology literacy standards will continue. Staff members are encouraged to share integration successes with other staff members at meetings and during training sessions. The expansion of distance learning opportunities and the development of teacher websites for use in their classes and/or for delivering instruction are areas we'll continue to explore and implement. A bi-annual district/community technology fair will occur in order to demonstrate the various uses of technology in the school and community.



# *Messalonskee School District Technology Plan 2009-2012*

## **12. Professional Development**

District staff and students will continue to offer professional development opportunities in order to keep staff up to date on new technologies. Staff also has access to outside conferences and University courses. Online courses through a variety of institutions are also available. Integration techniques are demonstrated and supported by integration specialists and lead teachers.

On an annual basis, money is budgeted to support staff training relative to technology integration. Staff survey results are used to generate courses/mini courses offered in the district. Courses may vary from one to 45 hours in length, taught by experienced personnel or taken independently, and may be used for certification units. Workshop days often include technology integration. A technology training session is offered to newly hired instructional personnel during orientation. Other money through Title IID is set aside for staff attending outside seminars and conferences to obtain additional knowledge in integrating technology to enhance their students' learning. Evening regional workshops are also offered to staff.

We have a need to build a stronger base of technology use through staff development. Continuing to reach teachers through training and sharing existing staff and student expertise will be important in order to move to the transforming stage of technology integration. The Maine Learning Results guide the creation of syllabi, product descriptors, rubrics, and assessments using technology. We need to develop minimal competencies and yearly technology goals for all staff in the use of technology and continue to make a strong commitment to maintaining and upgrading current resources, as changes in technology demand it.

See also, technology staffing and integration goals.



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## **13. Innovative Delivery Strategies**

The Messalonskee School District encourages staff to utilize technology to creatively develop programs of study that incorporate hardware/software/services seamlessly into curricula. We support all manner of delivery methodology from the Internet to the laptop.

The semester schedule at the high school allows us to provide more options for students to pursue. We are also able to offer electives, including specialized computer courses, such as AP Computer Programming, Web Design, Digital Photography, and Visual Media. Longer class periods and mobile laptop labs have provided increased creative opportunities for technology use. Web based software and Web based courses are becoming more prevalent.

LCD projectors are now used in lab settings and classrooms as well because of our ability to provide all teaching staff with laptops. At the middle school, the paradigm for one on one computing, established by the Laptop initiative, has been developed. Each classroom at the middle school also has a 32" TV with the connectivity to the laptops for instructional use.

At the elementary level, the use of mobile labs has increased student access to technology. Interactive white boards have provided an additional instructional tool that promotes engaged learning.

First Class email conferencing features help us to deliver course content, post homework, and receive work electronically. The use of "Moodle," a web based course management system, is gaining in popularity as an easy to use and cost effective process for delivering instruction online. A dynamic portal site has been developed to help define useful online resources for classroom teachers and students. Subscriptions are renewed yearly for web based support software including United Streaming and Atomic Learning.

We will continue to seek out, encourage, and support innovative delivery strategies that we would not otherwise have access to due to geographical distances or insufficient resources.



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## **14. Accountability Measures**

MSAD 47 will annually gather and analyze data on technology usage, make recommendations for professional development and budget needs as a result. Our technology plan is reviewed quarterly. Each of our specific goals has defined activities for achievement. Data will be routinely gathered and analyzed to measure the effectiveness of our technology efforts. This includes MLR results, attendance rates, graduation rates, and similar data.

Surveys will be given annually to staff and students for future technology planning and will stand as a record keeping system for how well technology is being integrated.

Measures used to evaluate the extent to which the tech plan activities are effective in integrating technology into curriculum and instructions, increasing the ability of teachers to teach, and enabling student to reach MLRs are included in Section 3 and listed as activities.