## **Algonac Community Schools**

### **Technology Plan**

http://algonac.k12.mi.us/tech/techplan.pdf 7/2012-6/2015 Code: 74030

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In association with the St. Clair County Regional Educational Service Agency

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## **Table of Contents:**

Introductory Material	3
Vision and Goals	5
Curriculum Integration	8
Student Achievement	10
Technology Delivery	12
Parent Communications & Community Relations	13
Collaboration	14
Professional Development	15
Supporting Resources	17
Infrastructure Needs/Technical Specification and Design	18
Increase Access	22
Budget and Timetable	22
Coordination of Resource	24
Evaluation	24
Acceptable Use Policy	28

# Algonac Community School District Technology Plan

## **Introductory Material**

### **Mission Statement**

It is the mission of the Algonac Community Schools to provide quality education opportunities for learners of all aspirations and abilities.

In pursuit of this mission, the Algonac Community Schools will....

- Employ and support quality staff
- Expect quality performance from its people and processes
- Model continuous learning
- Anticipate and embrace productive change
- Be the "school district of choice."

September 2008

### Introduction

Algonac Community School District is located in southeastern Michigan along the tip of the St. Clair river waterway. Algonac, the Venice of Michigan, is a rural school district that educates a student population of approximately 2100 students. The district is composed of one 9-12 high school, one 6-8 middle school, and three K-5 elementary schools. There are approximately 117 teachers in the district. In addition, the district has had the highest percentage of upper and lower income families in the county as well as the lowest percentage of middle-income families in the county. The ethnic make up the county is mostly white, with very small subgroups of Hispanic, Asian, Native American, and African Americans.

### **Algonac Community Schools Administrative Offices**

1216 St. Clair Blvd. Algonac, MI 48001

### **Elementary Schools (K-5)**

#### **Algonac Elementary School**

1300 St. Clair Blvd. Algonac, MI 48001 Phone: (810)794-4991 Student Enrolment: 320 Instructional Staff: 25

#### **Fair Haven Elementary**

8361 Broadbridge Fair Haven, MI 48023 Phone: (586)725-7911 Student Enrolment: 200 Instructional Staff: 11

#### **Millside Elementary School**

1904 Mill Street Algonac, MI 48001 Phone: (810)794-8880 Student Enrolment:278 Instructional Staff: 12

### **Secondary School (6-8)**

#### **Algonquin Middle School**

9185 Marsh Road Algonac, MI 48001 Phone: (810) 794-9317 Student Enrollment: 469 Instructional Staff: 24

### High School (9-12)

### **Algonac High School**

5200 Taft Road Algonac, MI 48001 Phone: (810)794-4911 Student Enrollment: 640 Instructional Staff: 31

Other Relevant Information:

- Free and Reduced Lunch Count (2011-12): 44%
- Graduation Rate (2010-11): 91%
- Retention Rate (2010-11): 5.5%
- Special Education (2011-012): 11 %
- Parent Conference Attendance 2011-012
  - Elementary Schools: 99.5%
  - Middle School 77%
  - High School 69%
- North Central Accreditation: Approved at Elementary, and Secondary School levels
- On states Education YES! Report Card all schools made AYP
- ABC Daycare/Preschool available for children six weeks to five years of age

## Vision and Goals: from State Improvement Plan

### **Statement of Vision**

Our vision is to create an exemplary school district which is acknowledged for the caliber of its graduates, the quality of its staff, and the diversity of its program.

The school district we envision...

- Creates enthusiasm for learning
- Nurtures intelligent risk-taking and bold experimentation
- Is characterized by openness and trust
- Capitalizes on change
- Functions as a showcase for the possible

### Algonac Community Schools – Goals

- 1. To help all Algonac Community School District students achieve to their full potential
- 2. To maintain a dynamic staff that is highly effective and endeavors to grow as learners
- 3. To offer a rigorous, relevant and diverse curriculum
- 4. To strengthen parental and community partnerships for a quality educational program
- 5. To continue providing maximum educational return on the district's resources

Approved by the Algonac Board of Education this 17<sup>th</sup> day of December, 2007

## **Technology Plan Vision**

The vision of Algonac Community School's use of technology is to provide technology to all students to ensure they achieve to their full potential, both academically and personally, and to prepare them for a lifetime of learning and independence. It is also the vision of the district to provide district personnel the appropriate technological training to use technology tools within a teaching and learning environment, and to provide the school district and the surrounding community a mutually dependent atmosphere of resource sharing to help develop a diverse community.

## **Technology Plan Goals:**

- 1. To ensure that the districts technology plan fully complies with all aspects of No Child Left Behind.
- 2. To provide current technologies to all students to ensure that they achieve to their full potential, both academically and personally, so as to prepare them for a lifetime of learning and independence.
  - Algonac Community Schools will continue to align and implement the use of technology with the Michigan Technology Content Standards and Benchmarks.
  - Students will have access to computers and other technological tools such as voice, video and data services such as the Internet, distance learning and online learning. They will also have access to laptop computers, interactive whiteboards, document projectors as well as United Streaming and additional software programs.
  - Students will develop problem-solving techniques through cooperative teamwork, assisted by appropriate technology.
  - Students will continue to develop an appreciation for and the ability to use technology in problem solving situations.
  - Students will undergo a variety of experiences to develop the appropriate technical skills to function responsibly in a lifetime of learning in a rapidly changing technological world.
- 3. To provide district personnel the appropriate technological training to use technology tools within a teaching and learning environment.
  - The Technology plan will support the Michigan Curriculum Framework and Common Core Standards.
  - Teachers and staff will participate in professional development activities necessary to make them proficient technical users of the district-wide network, its resources and other technology devices.
  - Teachers will participate in professional development activities as necessary to develop techniques and strategies to facilitate a learner-centered, project-based curriculum that integrates the use of technology as well as student based learning.
  - Teachers and staff will be provided with adequate time and resources to take advantage of professional development opportunities related to technology skills, techniques and strategies.
  - Resources will include skilled technology trainers, St. Clair County RESA and Algonac Technology staff and Internet and online tools, such as Michigan Virtual University, Moodle, Destiny and United Streaming etc.

- Provided teachers with time and opportunities to share their individual technology skills and expertise with other teachers in the district.
- 4. To provide the school district and surrounding community with a mutually dependent atmosphere of resource sharing to support the development of a diverse community.
  - The technology plan will address a wide range of needs of the school and community stakeholders, including teachers, administrators, school staff, parents, local business, and community service providers.
  - The district will plan future technology infrastructure in partnership with the local community.
  - The district will create information on the district-network that is useful to users both within and outside the district-network.
  - The district will provide teachers, students, administrators and community members, use of the technology resources in the various district buildings.
  - Parents may view their children's progress in school via Parent Connect as well as being apprised of school happenings through "Blast E-Mailings".

## **Technology Planning Team**

Name:	Position:	
Evan Humphrey*	Humphrey* Computer Technology Specialist	
Al Latosz*	Assistant Superintendent	
Michael Sharrow	Superintendent	
Karen Rochon	Assistant Computer Technology Specialist	

\*These individuals have primary responsibility for technology plan completion and submittal. Committee members listed also contributed to planning.

## **Curriculum Integration**

• Established Technology Committee: The establishing of a committee made up of select individuals from all schools within the Algonac school district that are responsible for the use of technology-based resources within their given school and/or building. Goals of this committee are to determine the needs and types of technology the district will require to succeed in the fulfillment of its technological mission. Goals include the inclusion of technologies in the day-to-day teaching of students. The committee meets bi-monthly to discuss the current state of the district's networked systems and what improvements need to be made. The group also discusses how the district technology staff can assist in the training of the district's staff. This committee serves the Curriculum Integration Committee's needs in promoting integration of the curriculum.

Staff Responsible: Technology Computer Specialist Status: Ongoing

• <u>Establish Curriculum Integration Committee</u>: Curriculum Committee will meet and discuss the integrated of technology into the curriculum in an effort to promote and enhance the learning process. An example would be the utilization of the districts distributed video system by teachers and students to augment the learning experience.

The Curriculum Technology Integration Committee (CITIC) is a side bar of the District's already in place Curriculum Committee (ITLC). This side bar is used to specifically discuss and address the use of technologies within the classroom to help promote awareness and suggest ways in which teachers can better utilize advances in technology to enrich the classroom environment.

### DATE: 2012/2015

**STATUS:** On Going: In the interim, a Tech Department representative will continue to attend the regular meetings of the ITLC (Instructional Team Leadership Council) when pertinent to technology purchases. **Staff Responsible:** Technology Computer Specialist, Assistant Superintendent

• **RESA Curriculum Integration Project:** The district supports teachers who have participated in the St. Clair County RESA's 21<sup>st</sup> Century Learning project. These teachers have had the opportunity to complete a project and to receive on-going professional support from the RESA Mentors. Algonac teachers and administrators have taken part in the training provided by the RESA. In addition, they have successfully applied for and received grants from the program that have supported their classroom efforts to put their training into practice.

- Additionally, the RESA continues to provide staff off site to work with small groups of teachers and administrators in how to better utilize technology in their daily lessons. This process is on-going and shall continue during the 2012-2013 school year and beyond. Likewise, the district will continue to utilize the talents of the RESA curriculum consultants in implementing curriculum integration activities.
- The district continues to investigate technology projects developed by other districts and to collaborate with these districts over projects that appear to have merit and may be further tailored to fit the needs of the students and staff of Algonac Community Schools.
- Algonac teaching staff, through this process, will be able to continue aligning their teaching with the Michigan Technology Content Standards.

**Staff Responsible:** Technology Computer Specialist, Assistant Superintendent, St. Clair RESA Technology Staff

- <u>Appropriate Technology Tool Usage:</u> To continually evaluate existing and emerging technologies for appropriate integration technologies such as computers, laptops, iPad's, telecommunication software applications, video and video streaming, Smart boards, document cameras and so forth will be access as they are integrated into the classroom. These tools were integrated into each content area, to enhance student learning beginning with elementary students and continuing thru to the Middle School and High School.
  - <u>**Technology as Tutorial:**</u> Those technologies that support the transmission of information from source to student. Examples of such technology are drill and practice games, integrated learning systems and computer based training and testing.
  - <u>Technology Applications:</u> Applications such as word processors, spreadsheet programs, database and other data collection /analyst programs such as Data Director are tools along with such programs as Destiny, Moodle, Read 180 and E2020 that may be used K-12. Some examples of application use of technology are Microsoft Office, Excel, Hyper Studio, Power Point and the Internet.
  - <u>**Technology exploration:**</u> Students are encouraged to explore a subject and construct their own knowledge using some content with a particular delivery system. *Examples:* Study Island, Grolier's' Encyclopedia and the Internet as well as other distance learning applications.
- <u>Technology as communication</u>: To use technology for the effective communication between teachers and students technologies such as teleconferencing, Internet, texting, podcasting and student publishing, distance learning and the like will be utilized.
- <u>Identification and Promotion of Technology Integrated Curricula</u>: The district's curriculum director continues to attend monthly county curriculum committee meetings

as well as the County Superintendent's Advisory Committee meetings and local biweekly administrative council meetings. Information shared at these meetings support the curriculum director by keeping him/her aware of recent and pending legislation affecting technology and curriculum as well as providing access to a county clearing house of technology related issues and resources. This information is then disseminated throughout the district.

• 8th graders will continue to be assessed on their technology skills in accordance with NCLB

## **Student Achievement**

- <u>Skills Building:</u> District skills building initiative begins with the lower elementary grades. These students will begin with basic keyboarding skills and simple Internet search techniques, which can be applied in all content areas. As they progress to high school, students will be expected to exhibit technological competency by creating multimedia presentation using various software, audio, and video applications.
- <u>**Teachers as Technology Mentors:**</u> Throughout the integration process, teachers will act as mentors to district students and their peers. Through training and practical classroom application of their technology skills, they will demonstrate competence to help students. In turn, students will learn the skills they need to be successful on the job and in the community through hands-on opportunities.
- <u>Technology exploration</u>: Students are encouraged to explore a subject and construct their own knowledge using some content with a particular delivery system. *Examples*: Study Island, E2020, Odessyware, Plato, Groliers' Encyclopedia and the Internet as well as other distance learning applications.

• <u>Timeline:</u>

2012-2013

2013-2014

2014-2015

ac Community Schools			Technology Plan 2012-2015
Acquisition of Technology	<ul> <li>* Install computer labs in District's three elementary schools</li> <li>* Expand District's Virtual Desktop usage.</li> <li>* Renewal of District Anti- Virus Software</li> <li>* Continue integration of personal computing devices, iPads, throughout the District</li> </ul>	<ul> <li>* Upgrade District computer to latest Microsoft Desktop Operating System</li> <li>* Upgrade District to latest version of Microsoft Office</li> <li>* Continue integration of personal computing devices, iPads, throughout the District.</li> </ul>	<ul> <li>* Replace Elementary Teacher workstations and projectors</li> <li>* Renewal District of Anti-Virus Software</li> <li>* Continue integration of personal computing devices, iPads, throughout the District</li> </ul>
Technology Integration (to enhance student achievement)	<ul> <li>* Train staff in the use of technology as it pertains to student instruction and curriculum integration</li> <li>* Participate in Video Conferencing events (i.e. JASON Project, Museum of Tolerance field trip &amp; Court Room to Class Room)</li> <li>* Utilize the RESA Tech Staff to model integration techniques and strategies</li> </ul>	<ul> <li>* Train staff in the use of technology as it pertains to student instruction and curriculum integration</li> <li>* Evaluate New curriculum- based products</li> <li>* Expand use of Video Conferencing to enhance lessons</li> <li>* Utilize the RESA Tech Staff to model integration techniques and strategies</li> </ul>	<ul> <li>* Train staff in the use of technology as it pertains to student instruction and curriculum integration</li> <li>* Evaluate New curriculum- based products</li> <li>* Expand use of Video Conferencing to enhance lessons</li> <li>* Utilize the RESA Tech Staff to model integration techniques and strategies</li> </ul>
Professional Development	<ul> <li>* Attend technology integration workshops</li> <li>* Annual professional development staff survey</li> <li>* Observe modeling of lessons by RESA Tech specialist</li> </ul>	<ul> <li>* Attend technology integration workshops</li> <li>* Annual professional development staff survey</li> <li>* Observe modeling of lessons by RESA Tech specialist</li> <li>* One training session/mo. with RESA and/or Algonac Tech specialist</li> </ul>	<ul> <li>* Attend technology integration workshops</li> <li>* Annual professional development staff survey</li> <li>* Quarterly training sessions with RESA and/or Algonac Tech specialist</li> </ul>
Technical Support	<ul> <li>* Consult with Algonac</li> <li>Tech staff to review &amp;</li> <li>upgrade technology</li> <li>annually</li> </ul>	* Consult with Algonac tech staff to review & upgrade technology annually	<ul> <li>Consult with Algonac tech staff to review &amp; upgrade technology annually</li> </ul>
Supporting Resources	<ul> <li>* Provide classroom Internet access</li> <li>* Evaluate curriculum- based software and manuals</li> <li>* Provide limited video on- demand capabilities thru district video servers and United Streaming</li> </ul>	<ul> <li>* Provide classroom Internet access</li> <li>* Evaluate curriculum- based software and manuals</li> <li>* Provide increased video on-demand capabilities thru district video servers and United Streaming</li> </ul>	<ul> <li>* Provide classroom Internet access</li> <li>* Evaluate curriculum-based software and manuals</li> <li>* Provide video on-demand capabilities thru district video servers and United Streaming</li> </ul>
Coordination of Funds	* Continue to pursue grants for professional development and equipment acquisition	* Continue to pursue grants for professional development and equipment acquisition	* Continue to pursue grants for professional development and equipment acquisition

## **Technology Delivery**

- <u>Online Classes:</u> The district has collaborated with higher education institutions to offer for-credit classes via distance learning technology. The utilization of distance learning, both live and through video conferencing has allowed for delivery of training content to multiple sites. This continues to provide a wider variety of topics than could be cover in a single site. The District offers blended learning classes utilizing the Moodle course management system.
- <u>Lending Library</u>: The district has established and maintains a "lending library" to ensure that assistive technology devices and/or assistive technology services are made available to any child who requires this service.
- **District Web Based Document Resource:** The district has established an online document library of technology manuals and other material to support the successful and effective use of technology during the 2003/2004 school year and continues to up-grade these materials on a regular basis. Software, manuals, and other technical resources are currently stored in the Information Technology Department. All resources (excluding software) are available for check out as requested.
- **<u>District Web site:</u>** The district's informational Web site address is <u>algonac.k12.mi.us</u>. Through the Algonac WEB site, staff members can view documents pertaining to the use schedules of teacher and other meetings.
- **Portable Video Conferencing Carts:** The district has five portable video conferencing carts that are equipped with the necessary hardware and software to provide two-way audio and video communications between multiple remote sites. In addition to video conferencing, the carts allow computer images, VHS media and overhead projector images to be shared over the network to remote sites. The district will use the portable video conferencing carts that are located in its three elementary schools and its middle school to deliver technology based learning of all aspect to building throughout the district and other remote sites, establishing a community of resource sharing

### • Other Online Resources, Subscriptions, and Software:

Additional resources used by the district include: MI CLIMB, Michigan Virtual University (MVU), Michigan Virtual High School (MVHS), Michigan Institute for Educational Management (MIEM), Michigan Association for Computer Users in Learning (MACUL), Two Way Interactive Connections in Education (TWICE) and the Association for Supervision and Curriculum Development (ASCD).

## **Parental Communications & Community Relations**

- <u>**District Web site:**</u> The district's informational Web site address is <u>algonac.k12.mi.us</u>. Through the Algonac WEB site, parents can view documents pertaining to the use of technology within the district, such as this document, as well as printed materials and children's homework and progress in school through a program called Parent Connect.
- <u>**Parent Connect:**</u> The district teaching staff utilizes Parent Connect web based student information system. Parent Connect allows parents and guardians access to grades, attendance and other useful information providing a more active role in the students education.
- <u>Algonac Reporter:</u> The Report is a bi-monthly informative paper that the school publishes and distributes to all community residents to keep them informed as to what is going on in the district. This publication includes the latest information on curriculum, school improvement, technology and student progress and honors.
- <u>Technology Committee:</u> Parents, teachers and administrators are members of the Algonac Community Schools' Technology Committee. The Goals of this committee are to determine the technology needs of the district and the types of technology the district will require to succeed in fulfilling its technological mission. Goals include the inclusion of technologies in the day-to-day teaching of students. The committee continues to meet bi-monthly to discuss the current state of the district's networked systems and what improvements need to be made. The group also discusses how the district technology committee can assist in the training of district staff. This committee supports the district's needs in promoting the integration of technology into the curriculum.
- <u>**Teachers E-Mail:**</u> All teachers and administrators have e-mail accounts on the Algonac network system. Parents, teachers and administrators can communicate directly with each other thru the use of e-mail to help promote involvement in the student learning process.

• <u>Wireless Communications:</u> All administrators have cell phones with data communication capabilities to allow constant communication with district and building personnel as well as the capability of sending and receiving e-mail from their individual cell phones.

## **Collaboration**

- <u>Local Internet Access</u>: Algonac High School has 37 computers in the media center for open Internet use by St. Clair County Community College students.
- <u>St. Clair County Community College</u>: The district has a partnership with St. Clair County Community College where by the college uses the district's computer labs and media center to host computer application classes and to support other college classes.
- <u>Video Conferencing</u>: The district shall partner with higher education institutions to offer for-credit classes via distance learning technology including video conferencing. The District has in each of its buildings, technology equipment that integrates with classroom technologies to provide access to video conferences.
- <u>**Resident Survey:**</u> Algonac Community Schools will survey, or use a focus group, composed of local residents every other year to determine the level of technological awareness and use of technology by individuals within the community. Results from the survey are used to help the district direct school improvement and establish goals for the upcoming school year.

This has been an on-going process. The next survey will be administered in 2014. The survey results also enable us to work with St. Clair County Community College to determine which of their offerings will best suit the needs of our community.

• <u>Michigan Virtual University:</u> Currently a small group of students at Algonac High School are able to take classes from MVU. These classes are typically classes that the school does not offer, or that the student's schedule does not allow them to take during the regular school day. The county Superintendent's Advisory Committee is currently developing the draft policies and procedures for the future expansion of this program. Costs for the program are currently being borne by the parents of the participating student.

## STATUS: On-Going

• <u>Blue Water Learning Academy:</u> Algonac Community Schools has an on-going collaboration with Blue Water Learning Academy to help insure the success of its students.

## **Professional Development**

- <u>2 Day RESA Countywide PD:</u> In conjunction with other St. Clair County school districts Algonac Community Schools partners with the St. Clair RESA to provide 2 professional development days for staff during the year. One of those days may be scheduled as an in-district PD day.
- **<u>RESA Support</u>** : St. Clair County RESA offers professional development trainers to provide Algonac staff training throughout the year
- **<u>Delivery Methods</u>**: The district will employ the following methods or means of delivery to allow all teachers the opportunity to attend training sessions:
  - <u>On-Demand Video Training</u>: This will enable video training to be provided ondemand by way of a video server that will deliver training content to the computer of the user in all buildings.
  - <u>Video Conferencing</u>: The utilization of distance learning allows for delivery of training content to multiple sites for staff and students alike. This has the potential of providing a wider variety of topics than could be cover in a single site.
  - <u>In-Service Training</u>: The Technology Department, in cooperation with the building principals, will determine a schedule of selected training workshops to be available to staff on selected district in-service days. Each building principal and his or her staff will determine utilization of these workshops.
  - <u>Summer Training Workshops:</u> During summer vacation selected workshops, as determined by an end of the year teacher survey, will be held in the district's computer labs.

- <u>Technology Training Workshops, RESA</u>: The St. Clair County RESA makes Technology training workshops available year round. These workshops are available to all school personnel and typically include the following topics: Internet applications, e-mail communications, and software packages for educational, presentation and office use, Web page design, Technology innovations, Student record-keeping software, video conferencing, united streaming and data disaggregation.
- <u>Internet Training:</u> A workshop may also be available on-line, on the district's WEB server, or other servers providing the district with said service. Along with skill development, staff will be shown practical classroom applications for each type of software or equipment. St. Clair County RESA employs a full-time technology consultant who is able to model lessons in the classroom. The district is allotted a minimum of 5 days of individualized or group training from the consultant.
- <u>National Competency levels</u>: Algonac Community Schools' recognizes and adherers to all state and national standards pertaining to technology competence levels. Algonac Community Schools has addressed skills development and is now moving to integration of these skills in classroom.

## **Supporting Resources**

- <u>STEC (St. Clair County Technology Education Committee) meetings:</u> Participation in monthly technology meetings that include RESA Information Technology staff and district technology representatives to discuss the use of technology in the schools, including the following: current software and hardware in use, recommendations for software and hardware standards, and discussion of local needs and concerns.
- <u>Algonac Community Schools Technology Committee:</u> The district shall facilitate a bimonthly meeting that includes Algonac Technology Department staff, administrative and teaching staff, parents and Board representatives to discuss and make recommendations regarding the use of technology in the district, including the following: current software and hardware in use, recommendations for software and hardware standards, and purchases and discussion of local needs and concerns. This meeting will allow district representatives to inform Parent representatives of the technology to be used with the district's students. Minutes of this committee meeting will be shared with each building's Parent Advisory Committee
- <u>Lending Library:</u> The district shall establish and maintain a "lending library" to ensure that assistive technology devices and/or assistive technology services are made available to any child who requires this service.
- <u>District Web Based Document Resource</u>: The district shall establish an online document library of technology manuals and other material to support the successful and effective use of technology. Software, manuals, and other technical resources are currently stored in the Information Technology Department. All resources (excluding software) are available for check out as requested.
- <u>AP Exam Online:</u> Students in Algonac High School's advanced placement classes have the opportunity to prepare for their annual final AP exams by going on-line to utilize practice AP exams, familiarizing themselves with the style and rigor of AP exams
- <u>**District Web site:**</u> The district's informational Web site address is <u>http://algonac.k12.mi.us</u>.
- <u>Other Online Resources, Subscriptions, and Software:</u> Additional resources used by the district include: MI CLIMB, Michigan Virtual University (MVU), Michigan Virtual High School (MVHS), and Michigan Institute for Educational Management (MIEM), and the Association for Supervision and Curriculum Development (ASCD).

- <u>District Internet Use Policy:</u> Algonac Community Schools utilizes the Internet as a resource tool as defined by the Internet use policy section of the Algonac Acceptable Use Policy
- <u>**REMC Bid List for Purchases:**</u> Algonac Community Schools utilizes the resources provided by the REMC (Regional Educational Media Center) Association of Michigan.

## **Infrastructure Needs/Technical Specification and Design**

## • <u>Current Infrastructure:</u>

Algonac Community School technology infrastructure is comprised of a 1 Gigabit fiber optic backbone interconnecting eight buildings with 3 pair of single mode fiber. This network provides on-demand data, voice and broadcast quality video throughout the district and other St. Clair county districts by way of the interconnections all districts share through the St. Clair RESA.

Algonac Community Schools brought online the streaming video system during the 2008/2009 school year. The system consists of a Central management server, 3 encoding servers, 6 building encoders, 6 building Kiosk and one mobile encoder. The Video Server will distribute video to the computers located in each of the district's classrooms by way of the district's switched data network. The computers will then be attached to a projector which will show the content to the class. The 3 encoder servers will stream 12 channels of video content to the classrooms were it will then either uni-cast or multi-cast the content to the district's workstations and then to the attached projectors. The encoders will also stream local cable channels to the network on the multicast addresses, providing select cable channel access to the district.

The Algonac Community School District is interconnected to the Gig backbone by way of a 10/100/1000Mbs Ethernet local area network connecting all workstations, printers and servers through Cisco 10/100/1000Mps Catalyst switches. Each switch has Gigabit uplinks to each other allowing adequate bandwidth for the needs of the district both today and the near future. The switches also have the ability to prioritize network traffic, which will better enable other technologies such as Video and Telephony over the LAN to coexist on Algonac's data network. The upgrade from a shared network infrastructure to the all switched to device Ethernet LAN infrastructure was completed during the 2001/2002 school year. Every Algonac school has a wireless network that provides coverage in teaching areas to provide connectivity to the building laptop computers.

Every Algonac Community Schools classroom is equipped with at least one computer with Internet access, projector, Smart Board, sound field, document camera and an IP based phone. Each elementary school has 3 mobile laptop carts, 2 consisting of 16 laptop

computers and one with 32 laptop computers. All laptops are provided with Internet access through the building wireless network. Each laptop cart has a network attached printer for student use. Each elementary building has a library with 4 computers with Internet access.

Algonquin Middle School has a computer lab consisting of 32 computers with Internet access and a network attached printer for student use. The Middle School also has two, Title I rooms with 12 computers with Internet Access and Plato, a computer based courseware management system and a network attached printer for student use. Algonquin Middle School also has 3 mobile laptop carts, 2 consisting of 16 laptop computers and one with 32 laptop computers. All laptops are provided with Internet access through the building wireless network. Each laptop cart has a network attached printer for student use. The library equipped with 5 computers with Internet access and a network attached printer for student use is also available.

Algonac High School has two computer labs consisting of 32 computers with Internet access and a network attached printer for student use. Algonac High School also has 3 mobile laptop carts, 2 consisting of 16 laptop computers and one with 32 laptop computers. All laptops are provided with Internet access through the building wireless network. Each laptop cart has a network attached printer for student use. The library equipped with 5 computers with Internet access and a network attached printer for student use is also available.

Algonac Community Schools has developed an IP (Internet Protocol) based phone system whereby the district's teachers and staff can communicate with each other without the need to use the PSTN (Publicly Switched Telephone Network). Buildings can call one another over the district's data network. It will allow for a Homework hot line, a telephone number where parents can call and get their children's homework assignments by way of telephone. It will allow teachers the opportunity to better communicate with parents. There is a phone in each classroom. This allows parents to call and leave messages for their student's teachers. Classroom access to phone, allows teachers to return calls promptly. The phone system was brought online the beginning of the 2001/2002 school year. The District IP Phone System is scheduled for a refresh during the 2009/2010 school year

#### <u>Elementary & Middle School Standards Based Grading System:</u>

The district is currently using a report card program called Zangle that determines student progress against a list of standards. The Zangle standard tracker can then calculate the student's grades to a letter grade or can provide a report on the standards assessed. The program also allows for reports on the entire classes' performance.

**DATE:** 2004/On Going **STATUS:** All Elementary schools are using the Zangle system as well as Algonquin Middle School

**Staff Responsible:** Technology Computer Specialist, Superintendent, Building Principals

• <u>District Intranet:</u> Development of a district intranet will enable students and staff alike to share information, collaborate on projects and communicate over the district's data network by way of a WEB browser interface. Components of the Intranet that would be needed to be purchased are a WEB server to host the web site and custom programming to create the database drive components of the site.

### DATE: 2008/2011

**STATUS:** The district's Intranet is currently in limited production with additional features to be added as they become available.

Staff Responsible: Technology Computer Specialist Estimated Cost: \$20,000.00

• **Replacement and Evaluation of Outdated Equipment:** District workstations will be evaluated every five years and updated and replaced as necessary. Server equipment will be evaluated every five years and updated and replaced as necessary. Networking equipment will be evaluated every five years and updated and replaced as necessary.

DATE: 1999/On GoingSTATUS: On going, per replacement scheduleStaff Responsible: Technology Computer Specialist, IT Staff

• **Future Design and Building Considerations** All new construction and all remodeling of structures within the Algonac Community School District shall have integration of technologies as a perquisite in the design and building stages. As such, designs will ensure that the infrastructure reflects the districts commitment to technology-enriched learning approaches, and links technical specification to curriculum, staff development and community goals. Considered in all facility design will be network connectivity with audio and video convergence of computer-based learning.

- **<u>Future Network Infrastructure Needs and Upgrades</u>** Future network considerations for high bandwidth, multicast enabled abilities shall be in place with considerations from but not facilitated by the St. Clair County RESA. Said abilities will facilitate the convergence of audio and video throughout the district as to the formation of an enhanced computer-based learning
- **On-Site Technical Support:** The plan will require on-site training of technology personnel by vendors installing equipment in the district. This training will be a requirement of the bidding process when the district bids for new technology equipment.
- <u>**Technology Training Workshops:</u>** The St. Clair County RESA will hold Technology training workshops for technology department personnel. The district's technology personnel will participate in these workshops. These workshops will consist of technologies that are common throughout the county.</u>
- <u>Support Staff Training and Certifications:</u> The district shall provide its Technology staff with appropriate training and training tools to ensure efficient operation of its network infrastructure. The district shall encourage the certification of its technology staff in their appropriate areas of responsibility and will provide support as per Board policy.
- <u>District Level Support</u>: The district shall maintain a district level support team, at a minimum, comprised of Technology Computer Specialist and a Computer Specialist. The Director of Technology is responsible for the overall daily operation of the district's data network and computer systems, phone and video systems. The Director shall also provide support for classroom teachers, technology integration, writing of technology related grants and such other funding as provided by USF.
- **Building Level Support:** Building support in all elementary school and the middle school will be provided by existing trained para-professionals. Algonac High School will receive build support directly by the Technology Department. Support provided in all buildings shall include the following: helping with login problems, basic printer and computer troubleshooting, and such other problems as can be handled with out Tech Department help.

## **Increased Access to Technology**

- <u>Special Needs</u> Consideration for students and/or staff with special needs is addressed using specialized programs and hardware. Access for visually impaired individuals can be achieved using screen-enlarging software or audio enabled software. Physically impaired persons will have access to computers with various recourses such as voice recognition, trackballs, touch screens, and other hardware components to allow all persons access to the districts technology.
- Equity of Access All staff and students are give equal opportunities to utilize technology within the district. Schools shall remain proportional in distribution of technologies provided by the district, as well as training for said technologies throughout the district. Proportionality of technologies shall also ensure that the need for increased access to technologies is considered in the districts assessments to meet future goals. No student, teacher or staff member has a right over another's; access to technologies within the district. Access to district technology is not based on a student/computer ratio. Rather, access is based on availability of computers for use within an accessible locations and available supervision. Access to district technology resources extends past that of instructional time and school hours. District Libraries provide access to technologies is available as well through the community Library system in correlation with the Algonac school district and the St. Clair RESA.

## **Budget and Timeline**

- <u>**Timetable:**</u> A timetable for each strategy is listed. We will continue to adjust our strategies as we assess the effectiveness of each strategy within the outlined goals in our Vision and Mission statements. Adjustment will also reflect new technologies that become available, completion of strategies, and additions made to the action plan.
- <u>Total Cost:</u> State Guideline 8: The plan addresses the projected total cost to be acquired and related expenses needed to implement the strategic long-range plan.

• <u>Technology 3 Year Budget:</u> Algonac Community Schools 3 year working budget. Costs related to the use of technology are not listed as separate line items but are acknowledged and supported by Algonac Community Schools. Costs associated for each strategy are listed and support in the 3 year Technology budget.

Algonac Community Schools Technology Budget				
FISCAL YEAR	2012/2013	2013/2014	2014/2015	
Salaries				
*IT Director & Staff	130,291.86	136,806.45	143,646.75	
Travel	2,120.00	2,226.00	2,337.30	
Benefits	52,419.00	55,039.95	57,791.94	
Conference	2600.00	2,730.00	2,866.50	
Training	6,360.00	6,678.00	7,011.90	
Remote Access Service	480.00	504.00	529.20	
Supplies	3,000.00	3,150.00	3,307.50	
Hardware Replacement per Tech Plan				
Workstations	150,000.00	157,500.00	165,375.00	
Servers	8,500.00	8,925.00	9,371.25	
Network Equipment	12,000.00	12,600.00	13,230.00	
Networked Printers	16,000.00	16,800.00	17,640.00	
Classroom Technologies	89,540.00	94,017.00	98,717.85	
Licenses				
Anti-Virus/Spam	4,189.00	4,398.45	4,618.37	
Microsoft Office	15,000.00	15,750.00	16,537.50	
Security Software	800.00	840.00	882.00	
OS Upgrades	10,500.00	11,025.00	11,576.25	
Contracted Services				
Internet Connections (St. Clair RESA)	64,000.00	67,200.00	70,560.00	
Data Services (St. Clair RESA)	6,500.00	6,825.00	7,166.25	
	\$574,299.86	\$603,014.85	\$633,165.56	

## **Coordination of Resources**

- <u>General Funds</u>: Algonac Community School's general funds will be coordinated with technology dollars and any available local, state, and federal resources to eliminate duplication of spending and to maximize the benefit to the school district. Budget coordination will be accomplished through a collaborative effort of the district's administration, technology and business departments. The district currently receives the following: Title II, Safe and Drug Free Schools, At-Risk funds, Title I, and USF funding.
- State and federal resources in the form of state aid, categorical funds and grant money will be used to address specific needs. The RESA employs a full-time grant writer who serves as a resource. He applies for funds at the district level as well as the RESA level and can alert the district when funds are available upon request.

## **Evaluation**

Name:	Position:
Michael Sharrow	Superintendent
Al Latosz *	Assistant Superintendent
Evan Humphrey*	Technology Computer Specialist
Karen Rochon	Computer Specialist
Lori Holderby	Business Director
Brian Brutyn	Principal, Algonac High School
Abe Leaver	Principal, Algonquin Middle School
Mellissa Hanners	Principal, Algonac Elementary
Jennifer Weaver	Principal, Fair Haven Elementary
Val Turpin	Principal, Millside Elementary
Leroy Bristol	Board of Education Member
Kelly Simko	Teacher
Rachelle Wynkoop	Teacher
Barbara Simpson	Teacher

## **Technology Committee Members:**

\*These individuals have primary responsibility for technology plan completion and submittal. Committee members listed also contributed to planning.

Algonac Community Schools

- <u>Infrastructure</u>: Members of Algonac's Technology Committee will meet bi-monthly to discuss the effectiveness of the district's infrastructure. The Technology Committee will work the through Technology Department to help determined if the infrastructure is adequate for the district's needs.
- <u>Curriculum Integration</u>: Staff and Administrators take surveys on how they feel technology can better serve the curriculum, whether technology the district has is being used to its full potential and where they think; the district should concentrate its technology planning. The district is using the information from the surveys to provide new technologies such as projectors connected to classroom computers so teachers can present computer-based curriculum to the students. The technology staff of the district will develop and administer these surveys. The results of the surveys will be examined by the technology committee and administration to determine where curriculum integration is working and where it is not working as well as could be desired. Once this has been determined, strategies will be developed to insure that the curriculum goals and technology are congruent. In addition, students in the 8th grades will be surveyed by the technology department and the findings of these surveys will be evaluated as to the progress students are making towards curriculum and technology goals.
- <u>MEAP, MME, ACT, PLAN and Explore</u>: Results will be studied by administration and the technology department to determine if students use of technology on a regular basis is having a positive effect on student achievement. Teachers will be asked to report on the student use of technology on class projects. These results along with previously mentioned survey results will be shared with the district administrative team, the technology committee and the district ITLC (Instructional Team Leadership Council) which is composed of teacher representatives for the core areas, special education and elective areas as well as administrative staff from each level and a Board of Education representation. In addition, staff members will be asked to submit a report on their students' use of technology as a regular part of class. This baseline information will enable the technology and the curriculum committee (ITLC) to see if, in fact, technology is becoming a regular part of instruction and to what level of sophistication students have attained.
- 8<sup>th</sup> grade technology assessment Multiple choice questions, survey of competence status and benchmarks in technology. District will utilize the RESA services when necessary.
- The district technology committee will review the plan on an annual basis and discuss progress or lack of same towards established goals. Following this meeting the technology committee will meet with the ITLC and discuss these results and seek innovative ways to continue progress towards the goals established in the plan.

- <u>Collaboration</u>: A Survey of district residents will be used to determine the technological awareness and use of technology in the surrounding community. The district will use information gathered from the survey to determine the type of classes to be offered to the public. The technology committee will also have the responsibility of establishing and maintaining contact with other major shareholders in the county, the St. Clair county RESA, St. Clair County Community College, and the six other school districts in the county for the purpose of information sharing, leveraging of resources and development. Additionally, it shall be the responsibility of the technology committee to establish contacts with MDE technology staff as well as such other organizations as may be pertinent to the goals of the district.
- **Professional Development:** The School District will seek staff input and coordination with the St. Clair RESA to determine course offerings/training content for professional staff development. The district planning committee, the ITLC and individual building school improvement committees will also determine the direction of professional development for their respective spheres of influence. Representatives from each building will meet with technology representatives and the ITLC to determine the direction technology training for staff should take for the upcoming year. The finance director will also be part of these discussions as it will be her responsibility to make available the necessary funds to attain these training experiences.
- **<u>Supporting Resources</u>**: To be evaluated at the Technology Committees bi-monthly meetings.
- <u>**Timetable:**</u> To be evaluated at the Technology Committees bi-monthly meetings and recommendations made to administration.
- <u>**Total Cost:</u>** To be evaluated by the Administration and Algonac Financial Department for recommendation to the Algonac Board of Education.</u>
- <u>Coordination of Resources:</u> To be evaluated by Administration and the Algonac Financial Department.
- Summary of Met and Unmet Goals:
  - Installation of IP Based district wide phone system:
    Status: (Complete) Installation of phone system was completed August of 2001 with training being completed for all personnel in September of 2001. There where a few problems at first, getting the PSTN (McLeod USA) provider to configure their equipment to communicate with the IP based phone system and to getting 911 calls to route correctly. A few software glitches also came up over the past years but were fixed promptly through the Technology Department.

## Centralized Server Farm:

**Status:** (Complete) All servers where consolidated into the Technology Department Office located at the Algonac High School. The Technology Office is also the core location of the district's network. The consolidation went as planned, the servers where moved over a weekend and were up and running in time for users to login on Monday. However, after the servers were relocated, the need for a climate control system in the server room was discovered. The district's HVAC consultant was called in and a climate control system was in place three months later.

## • 10/100/1000 Switched to Desktop Infrastructure:

**Status:** (Complete) All desktops, printers and servers are attached to a 10/100/1000 Switched network device that is in turn connected to the counties 1GB backbone. Change over from shared based network connectivity to 10/100/1000 switch based network was completed August 2010

## Distributed Video System:

**Status:** (Complete) The system consists of a Central management server, 3 encoding servers, 6 building encoders, 6 building Kiosk and one mobile encoder. The Video Server will distribute video to the computers located in each of the district's classrooms by way of the district's switched data network. The computers will then be attached to a projector which will show the content to the class. The 3 encoder servers will stream 12 channels of video content to the classrooms were it will then either unicast or multi-cast the content to the district's workstations and then to the attached projectors. The encoders will also stream local cable channels to the network on the multicast addresses, providing select cable channel access to the district.

### Classroom Interactive Technologies:

**Status:** (On Going) All Algonac Community Schools Classrooms will be equipped with interactive technologies. Each classroom will have a projector, interactive whiteboard, sound field and document camera. All technologies will interface the classroom workstation to provide teacher and students the ability to use multi sensory data, voice video and tactile response to engage, enhance and enlighten the classroom experience.

• <u>Persons Responsible for Evaluations:</u> The members of the Algonac Technology Committee serve, as part of their duties, serve as evaluators of the success of the technologies within the Algonac Community School district. See page 24 for list of committee members. Ultimately the findings and recommendations of the aforementioned groups will be presented to the Board of Education in open meeting for their consideration and acceptance.

# Monitoring and Evaluation

## **Acceptable Use Policy**

Algonac Community Schools complies with all state and federal guidelines as it pertains to access to the districts computer systems and internet connection, including Children's Internet Protection Act (CIPA).

## • <u>District Responsibility:</u>

The Algonac Community School District will control the structure, hardware and software that are used to allow access to information technologies for educational purposes through the ACS Technology Connection, including:

a) Assigning and removing of member accounts on the network(s).

b) Maintenance and repair of equipment that comprise the network(s).

c) Selection of software that the network(s) will support.

d) Implementing the Internet/On-Line Services Use Policy

e) Defining the rights/responsibilities of members

f) Providing resources that support the mission of the school district.

g) Providing training opportunities on the use and application of information technology, including training and information on new technologies, software and media as they are acquired and put into use in the district.

h) Provide content filtering and privacy and Internet safety as required by federal guidelines (i.e., The Children's Internet Protection Act [CIPA]).

The district does not take responsibilities for resources located and/or actions taken by the members that do not support the purposes of the school district.

### • <u>Network Members:</u>

All account holders on the Algonac Community Schools Technology Connection may be granted access to appropriate services the network(s) offer. The following people may be granted a network account upon agreement to the terms stated in this policy:

1. Students who are currently enrolled in the district.

2. Faculty and staff currently employed by the district.

Network members have the right to:

1. Use all authorized hardware and software for which they have received training and will use to facilitate learning and enhance educational information exchange.

2. Access information from outside resources that will facilitate learning and enhance educational information exchange.

3. Access appropriate services on the district network(s) and the Internet, to retrieve information to facilitate learning to enhance educational information exchange.

#### • Members are responsible for:

1. Utilizing technology in the school only to facilitate learning and enhance educational information exchange consistent with the purposes of the school district.

2. Attending appropriate training sessions in the use and care of hardware, software and the network and to refrain from using any technology for which they have not received training.

3. Adhering to the rules established for the use of hardware, software, labs, and networks in the school or through remote access outside of the school.

4. Maintaining the privacy of passwords and refraining from publishing or discussing passwords.

5. Having all disks or videos scanned for virus, dirt or other contamination which might endanger the integrity of district hardware, software or networks before they are used in district systems.

6. All material received via the Internet under their account. They accept responsibility for keeping all pornographic material, inappropriate files, or dangerous files (i.e. those containing a virus, dirt, or other contamination) from entering the school via the Internet or from being reproduced in visual, digital or written format.

7. Making all subscriptions to listservs or newsgroups known to the system administrator(s) and receiving prior approval before requesting such subscriptions on the Internet.

8. Using the e-mail system appropriately, reporting any violations of privacy and making only those e-mail contacts which facilitate learning and enhance educational information exchange.

9. Adhering to copyright guidelines in the use of hardware and software and in the transmission or copying of text or files on the Internet or from other resources.

#### • Members are prohibited from:

1. Using the technology for personal or private business, for product advertisement or political purposes including lobbying, or for making any financial commitments on the Internet.

2. The malicious use of technology to disrupt the use of technology by others, to harass or discriminate against others, and to infiltrate unauthorized computer systems.

### • <u>Consequences of Inappropriate Network Behavior:</u>

Any member who does not comply with the Internet/On-Line Services Use Policy and Procedural Regulations will lose network privileges. Repeated or severe infractions of the regulations may result in permanent termination of privileges.

The system administrator(s) of the ACS Technology Connection and Administration will determine what is inappropriate use based on the Internet/On-Line Services Use Policy and their decision is final. The system administrator(s) may close an account at any time for infractions.

Members violating any of these rights and responsibilities may face additional disciplinary action deemed appropriate in keeping with the disciplinary policies and guidelines of the school district.

### • Challenges:

Challenges as to the appropriateness of information being used shall be made in writing and shall state the reasons for the challenge. Challenges will be handled in the same manner as are challenges to the appropriateness of other printed materials as described in Board Policy IBC-Instructional Materials and Media Centers.

### • **Definitions:**

District equipment includes but is not limited to computers, disks drives, printers, scanners, networks, video and audio recorders, cameras, photocopiers, phones, and other related electronic resources.

Software includes, but is not limited to computer software, print and non-print resources. Networks include but are not limited to all voice, video and data system.