The Martin County School District

Technology Plan
2009-2012

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1. MISSION AND VISION

Mission

The students of the Martin County School District will be provided the tools and training necessary to compete on an equal basis in an increasingly technologically literate world. Teachers in the district will become proficient in using existing and emerging technology tools in their classrooms. Administrators and district staff will have the tools and resources required to service schools and all supporting departments. Through the partnership of students, parents, school, and community, full integration of technology within a curriculum based on the Sunshine State Standards will improve the performance of all students.

Vision

All students in the Martin County School District will learn in an environment that is motivating, engaging, and challenging through the use of multimedia tools. Technology will provide students, teachers, administrators, and district staff with the ability to create, access, exchange, and analyze information. Through the skillful use of technology, students will function as productive members of the 21st century society.

2. BACKGROUND

2.1 Profile Martin County is a fast-growing area located on Florida's East Coast, about halfway between Daytona Beach and Miami. We are a diverse community featuring a variety of socioeconomic and ethnic groups. The majority of the county's population (140,000) is distributed among several communities along the coast, where incomes range from poverty level to upper class. The western portion of the county is composed of rural farms, ranches, and citrus groves. There is an influx of migrant workers that follow the harvest of the farms and groves. The student population is therefore a vast mixture of abilities and family backgrounds. This makes for unique situations in curriculum development and technology acquirement at the school sites.

2.2 Planning Process Through the Educational Technology Advisory Committee (ETAC), the District gathered information from teachers, staff, students, administration, parents, and the community to develop guidelines for our three-year Technology Plan. The collaboratively developed plan guides policy and practice. Planned technology use addresses higher order teaching and learning for all students, including ESOL, ESE, and at-risk students. In addition, the development of partnerships with community, business and industry is encouraged. During school year 2008-2009, each school site will use this plan as a guide to create their own individualized school technology plan. Emphasis on student success within the full integration of technology in all areas of the curriculum is the core component of each plan.

2.3 Use To maximize the use of available technologies for our learning community, *E2020* is in place at our Applied Technology, Career Development, and Adult and Community Education Centers. Computer labs and media centers in the district are available for evening classes through the Indian River Community College.

3. NEEDS ASSESSMENT/GOALS

3.1 Assessment Each year, all stakeholders will participate in the *Florida Innovates* survey to assess district instructional and administrative telecommunications and technology needs. Teachers in the district are taking the *Inventory of Teacher Technology Skills* (ITTS) through the Department of Education, which is used to determine professional development requirements. An online needs assessment tool, developed by the Instructional Technology Department, is given to teachers and staff each spring to evaluate current use of technology, level of proficiency, the quantity of technology training received, and interest in future technology trainings. Communication is ongoing with The Exceptional Student Education Department to address assistive and adaptive needs. In addition to surveys, data from the Educational Technology (ET) department will be used to determine the present and future needs of the district in the area of voice, data, and other delivery systems. We will continue to implement strategies recommended by MGT of America, Inc. and have entered into a contract with *Energy Education, Inc.* to determine needs and offer strategies for energy conservation.

3.2 Internal Connections and Internet Access We will continue to maintain our high standards. All district locations are connected via Wide Area Network circuits ranging from fractional T-1 to 10-Gigabit Fiber. Minimum WAN connectivity for elementary schools is 20 Mbps Metro-E while middle and high schools have Gigabit fiber circuits. At every location the Local Area Network backbone is gigabit over multimode fiber. All workstations are connected using Cat5e or Cat6 copper cabling. Internet connectivity is provided by a 45 Mbps DS-3 from FIRN and is shared by all locations in the district. All classrooms have multimedia capability and Internet access. Martin County Schools' network infrastructure is thoroughly documented using CAD and Visio drawings. The District applies for E-Rate dollars to help supplement the cost of the frame relay and data lines that were put in place at the sites. The network is monitored 24 hours a day with SNMP management utilities to provide proactive maintenance.

3.3 Software and Tech Support The District will continue the *Microsoft School Agreement* Licensing including the *Microsoft Office Suite* due to its cost effectiveness. This is installed on all PC's. The district currently employs 5 technicians, 1 network specialist, 1 network engineer and 1 systems administrator supporting over 7,000 computers and our wide area network. Outsource support for older PC's, laptops, specialized software, Spectrum and E2020 labs will be obtained as necessary. In accordance with the current system, new switches, routers, and hubs will be purchased with lifetime warranties.

3.4 District Technology Goals:

Short term:

- Inventory computers and maintain the 4:1 student to computer ratio across the District.
- Refresh all district workstations on a four year cycle with new machines including 4 year warranty to ensure warranty coverage through workstation lifetime.
- Roll out *Microsoft Office 2007.*
- Revise instructional technology equipment standards.
- Continue to implement VoIP Enterprise Phone solution district-wide.

- Connect Felix A. Williams Elementary with Gigabit fiber circuit.
- Complete District-wide LANDesk Management Suite implementation to improve service level and technicians capabilities.
- Implement VMWare on an enterprise level in order to provide a redundant, readily scalable and highly available server infrastructure, including failover data center capabilities.
- Implement enterprise-class wireless technology for administrative and internal purposes.
- Require that all new school sites will have Gigabit fiber circuits. All existing sites will be considered and prioritized after evaluating practicability.
- Update and revise each school's three year technology plan.
- Continue our efforts to place 100% of county forms on the server for electronic access.
- Continue to expand the use of technology in reading and math until 100% of all students have some form of instruction in this format.
- Post technology training handouts on *Outlook Public Folders* for electronic access.
- Advertise training opportunities and educational resources in a timely manner.
- Encourage teachers to establish classroom websites and offer training in *FrontPage.*
- Purchase web-based resources for teacher and staff training, including Atomic Learning and Discovery Streaming webinars.
- Advertise and utilize area consortiums (PAEC and NEFEC) that offer on-line coursework and training through Florida Education Network.
- Continue and expand the partnership with Indian River State College to employ teachers as adjuncts to offer coursework in technology at individual school sites.
- Participate in *Sunshine Connections* when it becomes available.
- Ensure that every media center is an active *Sunlink* partner.
- Upgrade library management software to latest version (occurs twice a year).
- Continue subscription of a district license for video streaming of educational videos.
- Continue to offer the Lunchbox Series technology training for district administration and staff.
- Continue to promote and provide support for the Professional Learning Community in Technology.
- Add more members to the Technology Learning Groups (TLG) at each site every year.
- Provide multimedia equipment and interactive whiteboards to each new TLG member.
- Continue to offer Technology Institutes each summer.
- Revise instructional software list.
- Ensure that every teacher in the District has access to a data projector and document camera.
- Implement a Microsoft IT Academy for staff.

Long Term:

- Improve the ratio of technicians to computers.
- Investigate using SharePoint for user portals.
- Develop a plan to implement distance learning through a variety of technologies.
- Employ a teacher on assignment for technology training.
- Establish a security-related position in the department.
- Employ a webmaster.
- Adopt the National Educational Technology Standards for Students and Teachers.

- Maintain and support enterprise software applications required to allow the district to operate in the most effective and efficient manner possible.
- Work proactively with school personnel, administrators, and district staff to develop processes and procedures ensuring data quality and security.
- Work proactively with school personnel, administrators, and district staff to identify processes and procedures that can be improved with the implementation of IT solutions thereby creating greater efficiencies and cost savings for the district.

4. FUNDING PLAN

4.1 Recurring The annual District budget is the primary source of funding. In school year 2008-2009, nearly 1% of the total budget is earmarked for technology. In addition, 6.1 million in Capital Outlay has been allocated for technology. For school years 2009-2010 and 2010-2011, a similar percentage will be allocated specifically for technology.

Nonrecurring Each school's spending plan must be in compliance with the District's technology plan. In addition, *Enhancing Education Through Technology* (EETT) entitlement funds for school year 2008-2009 were over $20,000. Schools are encouraged to write grants and pursue partnership funding with organizations.

4.2 Budget The operating budget of the Educational Technology Department, which includes both administrative and instructional technology departments is over $1 million for school year 2008-2009. This amount is used for personnel, hardware, software, professional/curriculum development, repair and other services necessary for the operation of the ET department. This amount should stay consistent for the next several years.

4.3 EETT The District uses 100% of EETT funding for teacher training. Inservice during the school year is provided by TLG leaders and vendors at low cost. Each summer, a week long Technology Institute is held for in-depth training on new equipment and software.

5. TECHNOLOGY ACQUISITION PLAN

5.1 Identification Using the tools identified in section 3.1 and through input from the Educational Technology Advisory Committee, identification of appropriate technologies to meet District goals will be accomplished.

All school sites have a Technology Committee to assess, recommend, and improve their short and long-range plans. This committee will suggest ways to improve the technology components and software for curriculum enhancement and improved instruction. All decisions that impact the school should have the students' needs as the primary focus.

5.2 Software Plans to acquire software and technology-based educational materials is a decision based upon input from teachers, Instructional Services Department, Exceptional Student Education Department, ELL Department, and other stakeholders to ensure that students with the widest range of abilities interact with technology-based instructional programs in support of the Sunshine State Standards. *The Rosetta Stone* and *Destination Reading* are available at each school

site for ELL, primary students, and students with disabilities. The District will continue to purchase *Renaissance Learning* software for elementary and *E2020* and *Read 180* for middle and high school students. In addition, the *Performance Matters: Clear View* product has been implemented at each school site to drive instructional decisions. All new state adopted textbooks will have technology components built into their curriculum. Instructional software including ASP subscriptions must get approval from the Instructional Services and ET departments before purchase.

5.3 Timetable During school year 2008-2009**,** a revised equity plan will be implemented, bringing the student to computer ratio to 4:1 at every school site. The refresh cycle will occur on an annual basis, replacing any computer that is four years old or older.

5.4 Acquisition Policies that are in place will continue to be distributed to each site-based ETAC member in the form of electronic updates.

- The District presently purchases HP computers. These units are interoperable with existing and planned technology delivery systems. In addition, computers are purchased with a four-year warranty.
- The District will consistently upgrade workstations and servers to current hardware and software standards.
- Each site will continue to have trained staff to troubleshoot level I problems. The help desk is available during the work day to assist staff beyond level I. The District will keep a supply of replacement parts.

5.5 Technical Guidance The District Educational Technology Advisory Committee will meet bimonthly or as often as necessary, to offer recommendations and receive updates and then disseminate this information to the school sites regarding technology purchases. The ET department approves technology purchases.

6. ACCESS

6.1 Access Component:

- Resources to support the Sunshine State Standards include cable TV in all classrooms. The District has a digital satellite dish attached to the state's transponder. The District will make DVD recordings when requested and distribute them via the internal pony to the schools. All classrooms have access to the Internet. Teachers and students have the capability to download many types of instructional materials and media.

- The District and all schools maintain web sites for public information. Teachers are encouraged to develop classroom web sites. Some media centers are open during the evening hours to encourage parents to participate in their child's education. High school technology facilities will continue to stay open to the community through the adult education program. The District computer training lab will open during evening and weekend hours for staff development when necessary.

- An electronic gradebook, *Pinnacle*, can be accessed from home and keeps parents informed of their child's progress and attendance.

- Grolier Encyclopedia, Discovery Streaming, Destiny Library Manager, Destination Reading, Atomic Learning, and Florida Electronic Library can be accessed from home.

- Exceptional Student Education provides a variety of technologies for classroom and home use. Software is provided for students with special needs, including adaptive technologies for students with exceptional needs.

- To provide curriculum access to homebound and home schooled students, cooperation with off-site correctional facilities, the Environmental Studies Center, Teen Parenting, Family Learning Center, and Work Force Development will be maintained.

- Teachers and administrators that are connected to the WAN will continue to be kept up-to-date on District policies and procedural updates through e-mail. ETAC members serve as information liaisons for each school site to assist with technology decision making.

6.2 Acceptable Use Policy (AUP) All personnel and students using the services of the District network must read the AUP (see Appendix A). Yearly Internet and Network Security Awareness trainings, which include intellectual property rights and all copyright issues, will take place at every site via.

- Martin County Schools will require that a database be maintained containing the software, and hardware that exists at each site. One required element within this database will be the software registration number for each single user, lab, or site license of any software.

- All District databases are housed on the District mainframe, application servers, file servers and are protected by the Logon ID. The ET department controls password information. A pop-up appears before log-in and user agrees to comply with AUP as a prerequisite to use.

- District policy states that any device that provides access to mainframe data be housed in a secure area or monitored at all times. In accordance with auditor requests, terminal devices have a 10-minute time-out implemented, so that the device will disconnect from the applications if this limit is reached.

- Access to the computing center is maintained by cipher lock doors with the code issued to ET personnel only. The code is changed every 90 days and with each staff overturn.

- To comply with CIPA, the Acceptable Use Policy (AUP), the firewall (*Netscreen*), and filtering (*St. Bernard iPrism*) processes were presented to the School Board and the public for discussion, input and approval. Access by students to inappropriate sites or materials, is controlled by the firewall, filters, and policies that are in place. According to the terms of the AUP, students are not allowed to give out personal information about themselves or others. All computers attached to the LAN/WAN for student use are located in the media center, labs, or classrooms, these areas are monitored by teachers or staff members at all times. Proxy servers and anti-virus protection (*McAfee*) keep inappropriate material out of the system. Communication through the firewall using VPN (Virtual Private Network) is also available to a limited number of approved individuals through ET.

- The District has an Internet Access Committee that reviews requests to allow access to blocked sites for bona fide research or other lawful purposes for the duration of the project.

7. USER SUPPORT PLAN

7.1 Network Management The management of the network is done through the Educational Technology Department using software to manage switches, routers, servers, and desktops. To speed up the support procedure for end users, all workstations will continue to be diagnosed for failure and management problems. Many can be corrected from the central office.

7.2 Support LAN/WAN support will consist of a three-tier approach:

- **Tier one**: The ETAC member, who is usually the media specialist, will do initial troubleshooting of onsite problem and coordinate with the Help Desk for additional support and service.

- **Tier two**: Hardware technicians, software support and network specialists will support the site-based person as needed. This team will visit the site to troubleshoot problems or seek out other resources.

- **Tier three**: Network engineers and technical experts in the area of voice and data will be deployed by ET when necessary.

The District will continue to maintain an inventory of parts for older equipment for service and repair. New equipment will be purchased with a minimum of a four year warranty. The business partnership between the District's Instructional Technology Department and Comcast Cable will maintain cabling for TV and video. The repair of other technical equipment such as hubs, routers, satellite dishes, and video equipment will be outsourced due to the cost effectiveness.

8. PROFESSIONAL DEVELOPMENT PLAN

8.1 Provisions

- Develop and acquire new programs and software that promote the integration of technology into everyday curricular needs.

- Technology will be a meaningful component within all curriculum training using research-based instructional methods. These methods will be modeled and widely implemented as best practices.

- Maintain the Educational Technology Learning Lab and upgrade A/V equipment. Lab can be used for modeling, coaching, and training.

- Maintain a breakout room complete with an interactive whiteboard, projector, and document camera for training purposes.

- Identify and obtain technology-based professional development delivery systems that minimize teacher time away from the classroom and deliver training in the most cost-effective manner.

- Adoption of the National Educational Technology Standards for Teachers and monitoring of how teachers are meeting performance indicators through observation and documentation in lesson plans.

8.2 Training Staff development is coordinated through the District office and accomplished through a variety of strategies.

Web resources:

- *Discovery Streaming* webinars
- *Hot Chalk*
- *Atomic Learning*
- *Sunshine Connections*
- *Florida On-line Reading*
- Florida Education Channel: *Tuesday Teacher Training*
- *Lunchbox Series*
- *Promethean Planet*
- *SMART Technologies*
- *The Orange Grove*
- Florida Center for Instructional Technology

Other strategies:

- District staff offers training in *Destination Reading*, *Performance Matters*, *Pinnacle*, *Rosetta Stone*, and other software programs.

- Technology Learning Groups offer training throughout the District.

- Partnership with Indian River State College: technology adjuncts are available at most school sites to offer customized training and classes. District pays part of the tuition for teachers to earn re-certification credit.

- Pursue funding for a technology specialist, who will do on-site coaching and training.

- Hand-outs of step-by-step instructions for *Outlook*, *FrontPage*, *PowerPoint*, and more are posted in the *Outlook* Public Folders and will be constantly updated and added to.

- Teachers are encouraged to engage in other professional development activities such as National Board Certification, pursuing advanced degrees, and becoming part of the technology professional learning community.

9. PROGRAM EVALUATION

9.1 <u>Measurement</u> The impact of technology throughout the District will be measured using a variety of tools:

- Annual Needs Assessment survey will evaluate the use of technology, level of proficiency, and the quantity of technology training received.
- Comparison of *Florida Innovates* profile data from year to year will indicate usage of technology.
- Documentation of technology integration into the curriculum will be seen in lesson plans.
- An increased number of computer-generated reports or technology-centered student assignments will reflect growth in the use of technology.
- All schools will be encouraged to include a technology goal in their school improvement plan.
- Student academic achievement will improve as progress is made toward meeting the educational goals of the Sunshine State Standards and technology is fully integrated into the curriculum.
- Data driven decisions through the use of *Clear View* software, enables teachers to monitor, analyze, and manage student progress.

9.2 <u>Mid-course Corrections</u> The Educational Technology Advisory Committee meets on a regular basis in order to stay informed of new developments and to make recommendations for change as they seem appropriate throughout the year. The ET staff meets weekly to coordinate District efforts to develop, maintain, and implement technology resources.

Appendix A

The Martin County School District

Student Acceptable Use Policy for Networked Communications

Also see School Board Rules 7540.00 and 7540.02

The Martin County School District (MCSD) provides computers and network capabilities to students for the purpose of enhancing instruction through technological resources. Students may be granted access to the District's networked communication system (the Network), which could include access to the Internet. The Martin County School District has taken safeguards to meet the requirements of the *Children's Internet Protection Act (CIPA).*

Successful participation in the Network requires that its users regard it as a shared resource and that members conduct themselves in a responsible, efficient, and legal manner in accordance with the mission and policies set forth by the Martin County School District. The following guidelines have been established for users of the network. Failure to adhere to these guidelines may result in suspending or revoking the offender's privilege of access, school disciplinary action and/or appropriate legal actions.

Acceptable Uses of the Network/Internet

- Activities which support learning in the Martin County School District
- Activities which support the educational goals and objectives of the Martin County School District
- Respecting copyright laws and giving credit to authors

Unacceptable Uses of the Network/Internet

- Activities which interfere with or disrupt network users, services, or equipment
- Using profanity, obscenity, or other language which may be offensive to another user
- Activities for financial gain, commercial use, or illegal activity
- The access, download, or distribution of pornographic, obscene, or sexually explicit material
- Disclosure of personal information about self or others
- Plagiarism
- Unauthorized access of another's resources, programs, or data
- Modifying or damaging equipment

The Martin County School District makes no warranties of any kind, whether expressed or implied, for the services provided and will not be responsible for any damages a user suffers, including loss of data caused by the District's negligence or by user's errors or omissions. Use of any information obtained via the Internet is at the user's own risk. The MCSD specifically denies any responsibility for the accuracy or quality of information obtained through MCSD Networked Communications. All users need to consider the source of any information they obtain and consider how valid that information may be.