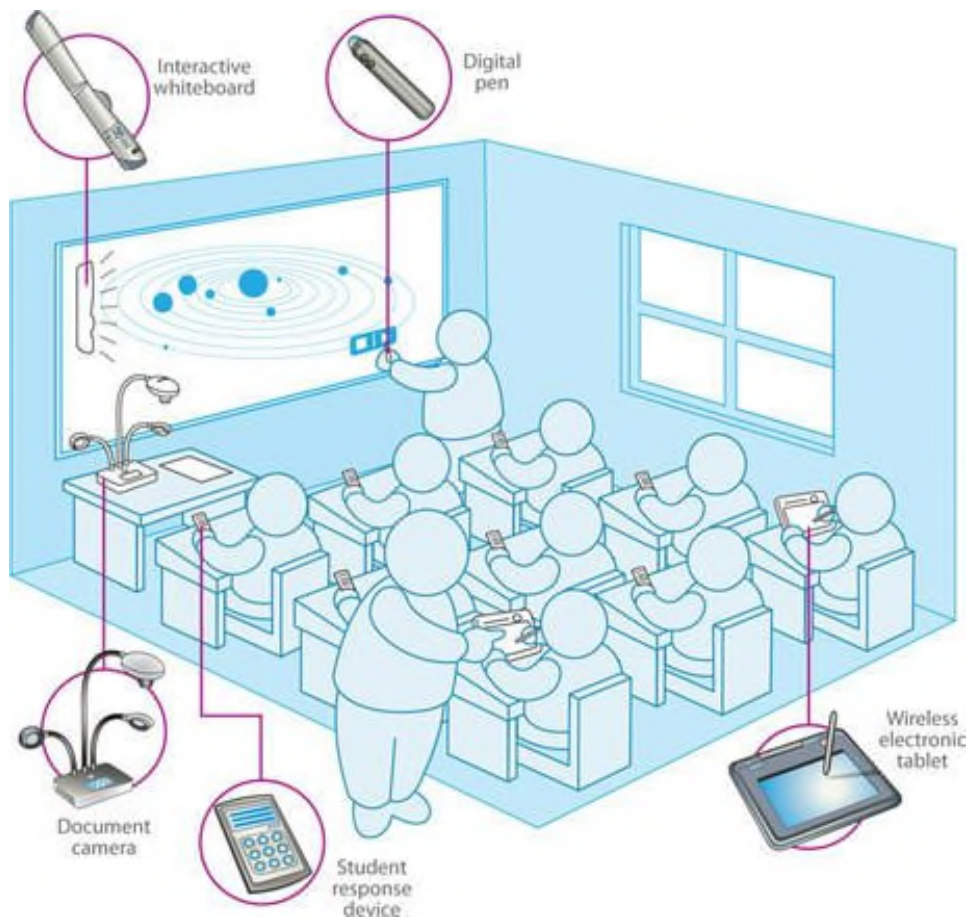




# Miller County School District

## Five Year Technology Plan



**2013 - 2018**

**Dr. J. Allen Kicklighter, Superintendent**



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## Technology Team

J. Allen Kicklighter – Superintendent  
James Phillips – Technology Director  
Robert Green – Federal Programs Director  
Elizabeth Crawford – System Data Coordinator  
David Kirkland – High School Principal  
Robert Melton – Middle School Principal  
Travis Peterson – Contracted Internet Technician  
Preston Bowen – Technology Technician  
Cory Thomas – City Manager, Parent

## Technology Vision

The Miller County School System envisions that our students will have access to the technology that they need to be skilled problem solvers. We will strive to ensure that all students will achieve the high standards listed by the State of Georgia and every student attending our school will learn to demonstrate competency in computer applications. This vision supports our system vision of “Pirates, reaching our potential in relentless pursuit of excellence.”

## Mission Statement

Pirates exhibit integrity by upholding the highest ethical standards and moral values, make positive character driven choices, are responsible for creating accountable partnerships, and are empowered to respect and be respected, and believe that they can achieve excellence through confidence in themselves, their school and their community.

## Demographics

Currently, the Miller County School System has approximately 1091 students enrolled; 525 are female and 566 are male. Of the total number of students, approximately 61% are White, 34% are Black, >1 % are American Indian/Alaskan, 1.7 % are Hispanic, 2.3 % are multiracial, and less than 1 % are Asian/Pacific Islander.



## Current Technology

During the spring of 2013, the new Miller County District web site was brought on-line. The site is departmentalized and provides the system with a platform that includes a public and private format to meet the needs of the system and schools:

- District information includes
  - 1) Contacts and general information for the Board of Education and Superintendent
  - 2) Parent information including a parent portal, parent involvement, and notices
  - 3) Departmental information for accounting & finance, curriculum, data collection, school nutrition, transportation, personnel, and student services and support
  - 4) Other information includes: Georgia Virtual School, surveys, school photos, and parents' rights

In the summer and fall of 2013, the Miller County School System's internet access was upgraded through an ERATE grant. The school's wiring was upgraded from CAT5 to CAT6, a 10 Gbps WAN fiber line was installed to connect the schools to the Board Office, internet bandwidth was expanded to 100 Mbs, and new blade servers were brought on-line to move the systems data into a "virtual" environment. In the fall of 2013, the district funded 149 new computers for the system. The new computers were placed throughout the system as follows:

- High School –
  - 1) 24 installed in the High School Technology Lab
  - 2) 25 installed in the High School Technology Classroom
  - 3) 10 installed in the Alternative School
  - 4) 5 installed in the media center for use in Virtual Learning
  - 5) 21 were installed in classrooms (includes teachers)
  - 6) 4 were installed in the High School front office
- Middle School –
  - 1) 14 installed as teacher work stations
  - 2) 2 installed in the Middle School front office



- Elementary School –
  - 1) 25 were installed as teacher work stations
  - 2) 5 were installed in the Elementary School front office

The remaining 18 are to be placed by the technology department based on a priority list developed by each school. Old hardware is slated for upgrade, if possible, and will be re-distributed as student computers. Title VIB currently supplies 45 tablets to the high school; 15 to support math, 15 to support social studies, and 30 to support science. Google Play is used for AP downloading applications on the tablets. The academic coaches have identified the total working classroom student computers in the system as 189 and that equates to approximately one computer for every six students. The Student computer break down includes the following computers:

- 13 in middle/high support lab;
- 24 in the HS computer lab;
- 25 in the High School Technology classroom;
- 33 for sign-out in the media center;
- 16 in high school classrooms;
- 10 in the alternative school;
- 31 in middle school classrooms;
- and 37 in elementary school classrooms.

Most of the student computers on the list are obsolete or in need of an upgrade. They are all running Windows XP which is about to meet its “End of Life”, which means no more security updates will be available. The processor speeds and the amount of memory available in all student computers are below the industry standard required for much of our learning software. As of right now, there are 25 old lab and teacher computers targeted for upgrade to Windows 7 and Office 2010 by the district technology department. The technology department suggests that up to 5 of those computers be used to replace old student computers within the Alternative School.



The school system does not have an adequate firewall or filtering system in place. The current firewall lacks a Graphic User Interface (GUI) for rule management and creation, is past its "End of Life", and does not have levels of security which are required to provide tiered security at the district and school level. The filtering system was originally configured to serve as a proxy and does not comply with the recommended usage outlined by the vendor. The vendor cannot support the filter with the current configuration. The system needs reconfiguring as an in-line content filter which would filter all traffic and allow no bypassing of the filter unless approved at the district level. The main concern is that reworking the filter may bottle neck data streams due to a lack of capacity. District technology is in communication with United Data Technologies (UDT) in an effort to determine if the filter will work in our existing system and identify network changes that will be needed to accomplish the single user hand off to Peachnet.

## **Needs Assessment**

We are continuously evaluating the types of technology available and the integration of technology in the Miller County School System. This technology plan is based on a variety of mechanisms including informal observations by administrators, technology contacts, and teacher feedback. We also solicit student, staff, and community feedback on technology surveys which are conducted during our annual needs assessment. Technology issues are discussed in school leadership meetings so that feedback can be collected throughout the year. There are procedures in place that guide teachers and staff in the reporting of technology issues. In addition to the informal feedback collected throughout the school year, a committee was formed to develop specific goals and strategies for maintaining and improving technology the school system. The system technology committee met on October 29, 2013 to review the information and data collected by the individual members and develop this five year plan. Principals were instructed in the planning process and asked to update their Technology Plans for inclusion in this five year district technology plan.



# Integration

## Integrating Technology in the Curriculum

The Miller County High School places a major emphasis on integrating technology into the curriculum in all grades. Teachers have (or will have) been taught to use SmartBoard, PowerPoints, WebQuests, Educational Software, TLE, PowerSchool, Google Chrome, SLDS, and Student Presentations in the classroom.

## **Teacher Training and Technology**

The focus of teacher training is to better assist teachers in the integration of software into the curriculum. Training topics are divided into the following areas: **Management** (PowerSchool), application (word processing, database, and spreadsheet – including Microsoft Office), **Multimedia** including Galileo, Discovery, and PowerPoint), **Telecommunication** (Internet, e-mail, creating web pages, electronic research, learning software, and others), and **Instructional** (Professional development to integrate technology in all areas of teaching and learning is offered on a regular and special request basis through RESA services). All offerings are listed in the professional development calendar on the RESA web site, provided newsletter, email, or flyer. Registration is handled through the professional learning department at the Central Office. An emphasis will be placed on training all teachers in the system to use Microsoft 2010. The major focus of the training will be PowerPoint presentations, creating web pages, researching the internet, creating graphs from research information (spreadsheet) and corresponding with others through e-mail and other multimedia such as web pages and blogs.

## Critical Issues

The critical issues for the school system are:

- Obsolete firewall and Inadequate filtering system
- Meeting requirements for single provider hand off to Peachnet in June of 2014
- High student to computer ratio
- Shortage of Interactive whiteboards



Our school system's internet capability is severely hindered by an outdated firewall and filtering system. We are desperately in need of an upgrade to meet the required specifications for single provider hand off to Peachnet in June of 2014. We have the capacity, wiring, and single service bandwidth of 100 Mbs to support the hand off to Peachnet; however, our firewall and filtering systems may prevent us from meeting the deadline. The technology department is actively working to identify our needs and to acquire funding for upgrading those systems. The school system's high student/computer ratio is preventing the system from effectively using our new intervention software, Math and Reading Academy. Teachers are reporting loading times of as high as twenty minutes for accessing the software on classroom student computers. Many computers stall and do not run the program at optimal speed. Some classrooms are not benefiting from interactive whiteboard technology and schools report a need for total of 15 additional units. Professional development is needed to support the use of interactive whiteboards, Office 2010, and instructional software throughout the system. We currently have approximately six students per classroom computer but most are not working at optimal levels. There is a definite need to decrease the student/computer ratio and improve service by adding additional units and upgrading current inventories.

## Goals

The Miller County School System has four major technology goals:

- Replacing the firewall and filtering system to facilitate transition to Peachnet single provider hand off in June of 2014
- Increase the availability of technology in the classroom by reducing student/computer ratios and providing all teaches with interactive whiteboards
- Providing a platform for communication among all stakeholders
- Alignment of the use of technology with local and state content standards and curricula to enhance learning and enrich teaching.





1. We will replace the firewall and filtering system to facilitate transition to Peachnet single provider hand off.

Rational: The Miller County School System will not be able to meet the needs of students, parents, staff, and state accountability there is not a successful transition to the new platform.

Strategies	Proposed Timeline
Maintain the WAN/LAN connectivity in the school	Implemented and maintained by the district technology staff.
Submit application for Tier I technology grant. The request is for \$ 87,000 which the state estimates will be the cost of upgrade to a 10 Gbps WAN fiber line	Fall – Superintendent request upgrade status from 1 Gbps copper rating to 10 Gbps WAN fiber line. Submit for State grant by Dec. 1, 2013. Bid, award, Install in spring of 2014.
Complete required paper work for single provider transition.	Request application from state after installation of upgrades.

2. Will increase the availability of technology in the classroom by reducing student/computer ratios and providing all teachers with interactive whiteboards. This will encourage learning that is relevant and authentic through the use of technology.

Rational: If technology is available, students can be more autonomous, collaborative, and reflective than in classrooms where technology is not present. Additional access to technology will provide students with the opportunity to engage in real-life applications of academics and encourage students to be more independent and responsible for their own learning. In a knowledge-based society, it is important that students have the self-confidence, knowledge base, technology fluency, and cooperative skills that will enable them to continue to learn throughout their lives. Technology facilitates the study of academics within the context of meaningful and authentic applications.

Strategies	Proposed Timeline
Decrease the classroom student / computer ratio to 5:1	Adding additional student computers at a rate of 20 a year to facilitate the decrease and maintain an up to date system.

3. Providing a platform for communication among all stakeholders.



Rational: A school website is a means of communication with the community, parents and students. School calendars and procedures are spelled out. The website provides knowledge about all school personnel and provides a means of contact. They have the capability of providing a platform for teachers to publish course outlines, class calendars, and facilitate parent contact. Assignments can be posted and students that are absent can quickly find out what they have missed. The platform can be used as a vehicle for surveys and other feedback from stakeholders in the district.

Strategies	Proposed Timeline
Maintain and enhance the school web site.	Currently active, proposed continued yearly funding of the site for the next five year.

4. We will align the use of technology with local and state content standards and curricula to enhance learning and enrich teaching.

Rational: Standards are broad based statements that describe student knowledge, skills, and abilities, establishing a target for learning across grade levels and content areas. Aligning technology use in the curriculum to standards insures that each learner obtains the greatest educational benefit, preparation for real-world experiences.

Teachers will model and use productivity tools and internet resources in the classroom and are encouraged to assign projects requiring technology skills.	Evaluated yearly with survey and ongoing with observation. Train teachers in the use of productivity tools and internet resources in ongoing professional development.
Teacher will attend workshops to better prepare them to make use of technology in the classroom	Implementation underway- the principal is encouraged to use professional development monies to pay for substitutes teachers for teacher technology training
Teachers will make goals for professional development about learning and integrating technology into their classroom	Will begin in Fall 2013 and be evaluated through TKEYS in an ongoing basis through 2018.

Overview: We are currently in the process of applying for a state grant to fund the system upgrade of our firewall and filtering systems. We will continue to seek funding to support the increasing use of technology in the classroom through the use of Federal grants, State grants, and local funds. Those funds will also be used to maintain and replace equipment as needed



and as appropriate. We have upgraded teacher computers with Office 2010 and will need to ensure they receive training to improve their ability to incorporate technology into the curriculum. Professional learning dollars allocated to the school will be used to support teacher training in the use of programs, software, and multimedia associated with the upgrade. We currently use SmartBoards in our classrooms and would like to have them in 100% of our classrooms. Teachers need additional training in the use of SmartBoards which will enable them to become more effective in the use of the technology. We would like to have five student computers in each core classroom to facilitate intervention and differentiation. We currently use Math and Reading Academy as our intervention software but we do not have enough working computers to use in the regular classroom. We also need five computer stations in the Teacher work area for use in career planning, surveys, testing, and to serve as a mini computer lab. We are currently in need of funding to replace aging and faulty equipment such as projectors and printers. We need supplies to support the use of technology in progress monitoring testing and all aspects of printing.

If we are able to acquire the additional intervention computers, SmartBoards, Computer stations and supplies we will be able to monitor the success of implementation through the progress monitoring tools provided with Math and Reading Academy. State testing (EOCT, HSGT, CRCT) local benchmarks and CCRPI reports will be expected to improve as we increase student access to technology. The professional development of our teachers can be monitored through student growth records within the Georgia Student Longitudinal Data System (SLDS).

## **Budget**

Firewall and filtering system upgrade – State estimate 87,000

Professional Learning – Yearly support from Title IIA at 10% of school allocation est. \$ 7,600

Student Classroom Workstation Computers: 20 x \$ 800 each = 16,000 yearly for 5 years Total: 80,000

Smartboards – 15 x \$ 3,800 each = \$ 57,000

System Web Site – 3,000 a year; 2014 to 2018; 12,000



## Summary

The Technology Director will meet with the technology team quarterly to reassess needs, progress monitor, and revise the technology plan as needed. There is a ticket system and procedure for responding to technology needs that may arise. Principals serve as the technology director for their respective school and have direct access to system technologists.

School leadership teams meet monthly to reassess needs, progress monitor, and revise their technology plans as needed. Changes to school technology plans are incorporated as amendments during the year and the entire plan is revised yearly. Amendments and updated plans are forwarded to the district for inclusion in the system wide plan.

Professional Development is ongoing and may change due to new purchases, changes in technologies, or requests and/or demand. Feedback from participants is used to determine the value of training.

Purchases are evaluated based on need and cost by the system. If issues arise with technology, new solutions will be investigated and purchase plans may be changed.

All decisions are data driven and rely on input from the state, Superintendent, Principals, Central office staff, teachers, students, and community stakeholders