Technology Implementation Plan

2008-2011

Carroll County Public Schools

125 North Court Street

Westminster, Maryland 21157

Board of Education

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Executive Summary

The infusion of technology into our schools has prompted great discussion from educators and researchers regarding its viability in our classrooms and its role as a cognitive and communication tool. This use of technology, both in our lives and in our schools is changing the way we interact with students, parents, and our community members. It continues to be one of the most dominant issues as we evolve from the industrial age of yesterday into the *community of information age* of today. Today, we experience daily this profound cultural and technological shift in our learning where the acquisition and dissemination of information is now more socially mediated and resides more within our communities of learners than with the individual.

The Carroll County Public School System strives for excellence and prides itself on the quality of the education that it provides to the students in our community of learning. Technology has taken on a key role in supporting the instructional processes as well as the administrative functions. The purpose of this Technology Implementation Plan is to provide all students, teachers, staff, and community members' information, direction, and guidance in the use of technology throughout the Carroll County Public School System.

This implementation plan recognizes essential conditions that must exist in order for technology to be effectively integrated into instruction and provides strategies for meeting those conditions with the ultimate goal of improving student achievement. Teachers and students must have access to a basic, high-quality level of technology, staff development training in its effective integration, and both technical and administrative support for the use of technology in their classes. A strong infrastructure is critical for access to local, state, and worldwide educational resources and to support integration. Funding must be adequate to support the goals and objectives of the plan.   These beliefs form the basis for the goals and objectives of the plan which focus on five areas: access, professional development, instructional integration, administrative functioning, and effective research and accountability. This Technology Implementation Plan outlines

the strategies that will help us meet our goals, suggests a timeline for implementation, and provides a snapshot of our current status in each area.

Through thorough and comprehensive discussions with building–level administrators, teachers, supervisors, and the Technology Advisory Council, we have conceptualized and created a technology implementation plan which is meant to be understood as an ever-changing and evolving document which not only reflects long-terms goals, objectives, and strategies relating to technology integration, but also serves as a communication tool which links all students and employees of Carroll County Public Schools to the community.

Planning Process

In response to new federal and state regulations, specifically The No Child Left Behind Act (NCLB) and the Bridge to Excellence Master Plan, The Carroll County Public School System needed to prepare a comprehensive, system-wide Technology Plan. The combined efforts of multiple departments of the organization were charged with its development. One of the results of this collaborative effort was the creation of the Technology Advisory Council.

In January of 2008, the Technology Advisory Council was created to begin the development of the technology vision and related essential strategies. This focus group was composed of over 40 volunteers, representing every key department within the school system. The group met monthly from January to June of 2008 and was presented with the following charge:

- To increase understandings of instructional and administrative technology use and infrastructure; communicate understandings to others in the system as well as to those in the community
- Provide recommendations and input that support the CCPS instructional   and administrative technology vision and mission

Introduction

Preparing the Carroll County Public Schools Community of Learners--students, faculty, and parents to function successfully in the world today and tomorrow is one of the primary aims of education. As we have moved from an industrial society to an information society, the projected impact of technology on our lives makes the development of technology literate students an increasingly necessary goal of education. The students of Carroll County Public Schools will be continuously educated in the effective use of technology at each grade level K-12.

Technology in the form of telecommunication networks, computers, and online digital resources is becoming an increasingly important resource for instruction as well as an integral part of the worlds of work and home. This document provides the guidelines and suggestions for the integration of such technology into the instructional programs for the students in the Carroll County Public Schools.

It is imperative that Carroll County Public Schools not be viewed in isolation but as one component of a successful technology community. From a technology infrastructure standpoint, it is critical that partnerships with other county stakeholders, including the Carroll County Government, Carroll Community College, Carroll County Public Library, which together comprise the formally created Carroll County Public Network combine resources for improving and enhancing the technology infrastructure. Economies of scale can be achieved by solving common challenges as a team and this combination of resources can create a dynamic, broader learning community. Further, a view of the greater economic development standpoint of creating an efficient and high-powered infrastructure for all entities is beneficial to the overall health of the community. These business partnerships are a key ingredient in the overall success of the infrastructure.

Technology is advancing at a rapid pace and is continuing to introduce new and better ways to communicate, to learn, and to produce a better way of life for everyone in our learning community. Our emphasis should be on how these new technologies can assist our students in learning the skills of reading, writing, mathematics, problem solving

and critical thinking rather than on simply learning about the technologies themselves. The use of technology embedded into the curricula can prepare students with a wide variety of resources which can enable them to meet the challenges of the future.

It is the intent of Carroll County Public Schools to incorporate these technological advancements to improve and enhance the instructional programs for all students. In addition, it is an objective of the system to provide all students with varied experiences in the use of carefully selected technological hardware and software. Technology will be integrated into the instructional program to provide students with experiences which will increase their academic achievement and its use will also be viewed as an expectation all stakeholders.

Full implementation will require additional hardware, materials, staff, and training as outlined in the various sections of this plan. This Technology Implementation Plan will enhance all instructional and administrative programs and provide a guiding direction for the system to integrate technology effectively in the classroom as well as all other areas of the school system.

The objectives of this plan align with those of the Maryland State Department of Education and are as follows:

Objective 1:   Improve Student Learning Through Technology.

Objective 2:   Improve Staff's knowledge and Skills to Integrate Technology into Instruction**.**

Objective 3:   Improve Decision-Making, Productivity, and Efficiency at all Levels of the Organization through the Use of Technology**.**

Objective 4:   Improve Equitable Access to Appropriate Technologies Among all Stakeholders.

Objective 5:   Improve Instructional Uses of Technology through Communication and Collaboration.

As this dynamic document grows, changes, and guides Carroll County Public Schools through the complexities of educating our children through the integration of technology in our classrooms, we will continue to upgrade, revise, and monitor its contents to improve student achievement and ensure accountability.

Through the use of collaboration and communication, we will disseminate the information in this Technology Implementation Plan to a broad, diverse audience which includes teachers, administrators, parents, students, community members, business leaders, and local government officials. The Plan incorporates action steps that utilize research-based best practices including: the infusion of technology to support and enhance the learning process, on-going systematic professional development to develop and sustain a high quality workforce, the use of data in the decision-making process, the development of a technology infrastructure to support the needs of the school system, and the use of technology to increase the efficiency and effectiveness of administrative and operational processes.

In a general sense, the five objectives of the Technology Implementation Plan centers around five primary areas of focus: infrastructure (physical network and core hardware); seamless technology integrated classrooms and offices that are "plugged" into the infrastructure; strong staff development to enable teachers and staff to utilize the technology tools of the classroom and office; highly qualified resources to support the operation and effective use of the technology; constant examination and data-based evaluation of technology to insure determine effectiveness.

Carroll County Public School System Vision

The Carroll County Public School System plays a foundational role in the success of the community. Through a network of resources and supports, students participate in learning guided by rigorous, stimulating curricula which are augmented through a variety of educational opportunities for extended learning and success.

Our employees are at the heart of our educational efforts, and accordingly, they benefit from competitive salaries and a multitude of staff development opportunities for professional growth as educational leaders.

In an atmosphere of mutual trust and respect and an environment which is safe and orderly, students and staff learn, work, and grow together as individuals with shared goals. As participants in the system's success, each student is valued by staff and encouraged to share their unique ideas, talents, and abilities. Staff collectively strives to create a learning environment which challenges students to reach their maximum potential.

Graduates are effectively prepared to achieve their personal goals through higher education or as part of the business community. The community views students as its greatest resource and welcomes them as productive, caring, respectful, and responsible citizens. Individuals desiring to answer the call to serve in public education choose to do so in Carroll County Public Schools, where they can become an integral part of a diverse learning community which values and supports their efforts.

The community and its families support their schools and students. Members of the business community are willing participants in providing the support central to the system's success and are eager to celebrate student achievement. As responsible stewards of both human and fiscal resources, the Board of Education and staff acknowledge and appreciate the community's many contributions.

The Carroll County Public School System is proud to maintain an environment in which students, staff, families, and other community members participate in and contribute to the system's ongoing pursuit of excellence.

Carroll County Public School System Mission Statement

The mission of Carroll County Public Schools is to ensure that every student can thrive as a responsible citizen in a changing world by providing rigorous and challenging curriculum in partnership with quality staff, caring families, and supportive community members.

Carroll County Public School System Values

- Never be satisfied in our pursuit of excellence.
- All students can learn and succeed - no excuses, no exceptions.
- All students and staff are entitled to a safe and orderly learning environment.
- Everyone's participation is paramount to our success.
- Treat everyone in an open, fair, honest, and respectful manner.

Historical Overview of the Carroll County Public School System

The Carroll County Public School System lies near both the Baltimore and Washington, D.C. metropolitan areas. The region can best be characterized as a rural area, rapidly becoming suburban.

Today, over 28,000 students are enrolled in our schools ranking us as the 9th largest school system in the state of Maryland. The system is governed by the Board of Education which is made up of five elected members and a student representative.

The Carroll County Public School System ranks as one of the top performing school systems in the state of Maryland according to the Maryland School Performance Program Report which is released annually by the Maryland State Department of Education. Instructional staff is continually recognized at the state and national levels for their performance with numerous awards.

The educational programs developed in the Carroll County Public School System are also recognized statewide and nationally for their high standards and innovative approaches. For example, the elementary science program has been adopted in hundreds of school systems across the United States and in many other countries around the world. The system's economic education program has been recognized by the Joint Council on Economic Education as one of the top ten programs in the country. The Career and Technology Center's Computer Technology Program has been recognized as the most outstanding Career and Technology Program in the state by the Maryland State Department of Education.

Carroll County students consistently score above state and national averages on the Scholastic Aptitude Test and other standardized tests. Carroll County also has one of the highest college attendance rates in the state. This factor, combined with the success of the outstanding Career and Technology Program, the involvement of the business community, and the involvement of parents in the county, helps Carroll County to produce students who are well prepared for whatever path they may choose after graduation.

Strategic Technology Position Statement

Our students live in a technological world that will continue to grow and change exponentially during their lifetime. In order for our students to function successfully in this technologically complex global world, it is our professional responsibility to ensure that students learn in technology rich environments where teachers have the competence and confidence to use instructional technology in appropriate and meaningful ways to enhance student performance. Increasing technology literacy skills of teachers as well as students must be a priority at all levels and in all subject areas. The appropriate use of instructional technology based on availability of that technology should be an expectation, not a choice.

Strategies to Improve Academic Achievement

Specific objectives to improve academic achievement are listed below with the corresponding numeric corresponding target that is further described within each objective that follows:

Objective 1: Improve Student Learning Through Technology

Corresponding Target(s)	Enabling Strategies
1.1 1.2	Create a systematic process for the creation, management, storage, retrieval and delivery of digital curricular content and related resources.
1.2	Review instructional technologies and digital content for technical operability, universal design, as well as curricular alignment and communicate to all appropriate stakeholders.
1.3 1.4 1.5	Expand (as possible) the use of The Carroll County Public Schools' Web Portal to allow continuous access to digital content and curricular resources by all students, parents, and staff.
1.3	Facilitate the procurement, delivery, and integration of online courses for students for original and recovery credit through the Maryland Virtual Learning Opportunities Program (MVLO).
1.6	Collaborate with appropriate stakeholders to research, design, integrate, and evaluate technology-integrated learning activities that will enable students to become technologically literate.

Objective 2: Improve Staff's Knowledge and Skills to Integrate Technology into Instruction

Corresponding Target(s)	Enabling Strategies
2.1	Facilitate the procurement, delivery, and integration, and evaluation of online courses and all other professional development resources for teachers to meet state-establish standards for technology-related knowledge and skills.
2.1	Provide training for teaching in an online learning environment for courses and e-Communities.
2.1 2.2 2.3	Continue to collaborate and coordinate with local colleges and universities and online content providers to provide a variety of professional development courses.
2.1 2.2 2.3	Provide training, support, and related professional staff development to all appropriate stakeholders on the use and management and instructional uses of digital curricular via our Learning Management System.
2.2	Research, design, integrate, and evaluate administrative applications and provide related professional development to increase administrative functionality to meet state-establish standards for technology-related knowledge and skills.
2.3	Provide technical support for online courses on our learning management system to all appropriate stakeholders.
2.3	Create, manage, and implement a professional development plan for all appropriate stakeholders as new technologies are introduced.

Objective 3:   Improve Decision-Making, Productivity, and Efficiency at all Levels of the Organization
through the Use of Technology

Corresponding Target(s)	Enabling Strategies
3.1	Continue to create, maintain, and support software applications, for collaboration and communication among all stakeholders and to increase managerial and administrative efficiency.
3.2	Continue to provide professional staff development, technical support, and leadership in support of the technologies that provide administrative and operational purposes.
3.3 4.3	Continue to provide leadership, technical recommendations, and input regarding policies and procedures for the access of digital resources, data, and information after school hours.
3.4	Continue to provide leadership, technical recommendations, and input regarding policies and procedures for the electronic communication with educators, students, parents, and members of the community.
3.5	Continue to design, create, and support our data management systems, integration student information system, and learning managements system so they are secure, and available to all needed stakeholders.
3.6	Continue to collaborate with required stakeholders to retrieve, analyze, and disseminate student, school, and county-wide data to a variety of audiences.

Objective 4: Improve Equitable Access to Appropriate Technologies Among all Stakeholders

Corresponding Target(s)	Enabling Strategies
4.1.1 4.1.2	Continue to improve to student to computer ratios at the secondary level.
4.1.3	Continue to improve to student to computer ratios at the elementary schools.
4.1.4	Collaborative with other stakeholders throughout the system to research, pilot, evaluate, and provide students and staff access a variety of technology devices such as digital slates/tablets, response system, and PDAs.
4.1.5	Continue to explore optional configurations and solutions to allow projection devices/display units to be used instructionally.
4.1.6 4.1.7	Continue to provide a broadband LAN/WAN infrastructure to all instructional and administrative areas and ensure that that this computing environment is safe with secure access to information by appropriate stakeholders.
4.2	Continue to monitor the policies and procedures in place that address accessibility, privacy of student data and security, for all students and employees.
4.3	Continue to provide high quality technical assistance for all end users through the use of the Technology Services Service Center (Help Desk).
4.4.2 4.4.3 4.4.4	Continue to provide high quality system wide technical support for all end-user technology devices as well as core technology infrastructure including the Data Center, LAN, WAN, and data and application systems.

Objective 5: Improve Instructional Uses of Technology through Communication and Collaboration

Corresponding Target(s)	Enabling Strategies
5.1	Continue to communicate with appropriate stakeholders about research on the effective use of new and emerging technologies for teaching and learning and analyze data from a variety of sources to improve student achievement.
5.2	Continue to collaborate and communicate with the appropriate stakeholders about issues on the instructional and administrative uses of technology including funding.
5.3	Continue to collaborate with local colleges and universities about new and emerging uses of technology and sharing of professional development resources.
5.4	Collaborate with appropriate stakeholders to evaluate the effectiveness of the components of the Technology Implementation Plan.
5.5 5.6 5.7	Continue to create, manage, and implement an annual technology budget that funds: necessary equipment, software, online resources, on-going maintenance, supplies, replacement of outdated equipment and resources and professional staff development.

Objective 1: Improve Student Learning Through Technology

Targets:

1.1   Digital content will be available before, during and after school to support teaching and learning.

1.2   Digital content that incorporates universal design will be integrated into all instruction, as appropriate, to support teaching and learning.

1.3   Students and staff will have expanded access to curricula and support related to Maryland standards through online courses, content, collaboration, and support.

1.4   All students will have coordinated access to web-based information and resources through collaboration with and linkages to other portal providers.

1.5   Student, staff, and alternate education programs will have access to use digital resources after regular school hours.

1.6   All students will demonstrate mastery of technology literacy by the end of eighth grade as specified in the:

- •   Maryland Student Technology Literacy Standards

- •   School Library Media Voluntary State Curriculum

- •   Technology Education Voluntary State Curriculum

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Objective 1: Improve Student Learning Through Technology	
Targets for 2011	**Progress to Date**
1.1 Digital content will be available before, during and after school to support teaching and learning.	Various curriculum content areas have made curriculum available online in varying formats and degrees: Desire2Learn, wikis, Intranet, and CCPS Internet websites. Curriculum revision process has incorporated the MD Technology Literacy Standards for Students as a requirement. Secondary Science curricula are designed to support the explicit use of instructional technology in all classes and courses. Student enrollment through MVLO has increased 50% from last school year to 52 students who have completed online courses in both the middle and high school levels. 54 teachers have received training in the HSA Online courses and are being used in numerous classrooms. All CCPS students have school and home access to the MDK12 Digital Library online databases. Supplemental digital material provided by textbook publishers in all content areas available to teachers and students. Distance Learning Lab accessibility for high school credit recovery.

1.2 Digital content that incorporates universal design will be integrated into all instruction, as appropriate, to support teaching and learning.	Math Resource and Elementary Science Curriculum piloted the use of edClass to provide best practice examples of technology integration which included universal design to support teaching and learning in seven elementary schools. SuccessMaker—a math intervention application—was piloted in 9 elementary schools and all middle schools for Mathematics intervention. Variety of school-based subscriptions available including Study Island, Reading A-Z, BrainPOP, etc.
1.3 Students and staff will have expanded access to curricula and support related to Maryland standards through online courses, content, collaboration, and support.	18 concurrent seats in Elluminate provide opportunities for curriculum support, professional development, and cross-school collaboration. 19 online Professional Learning Communities have been facilitated through our Desire2Learn Learning Management System ranging in purpose from school based communities, curriculum writing teams, and staff development hybrid communities. 45 teachers have received training in the HSA Online courses and are being used in numerous classrooms.
1.4 All students will have coordinated access to web-based information and resources through collaboration with and linkages to other portal providers.	CCPS website provides access to various curriculum resources and linkages to online databases.

1.5 Student, staff, and alternate education programs will have access to use digital resources after regular school hours	CCPS students and families have access to online databases through the MDK12 Digital Library and CCPS website. CCPS Resource Center is open once a month for additional access to digital resources and databases. Flexible Support Program and alternative education program provide additional access to digital resources.
1.6 All students will demonstrate mastery of technology literacy by the end of eighth grade as specified in the: • Maryland Student Technology Literacy Standards • School Library Media Voluntary State Curriculum • Technology Education Voluntary State Curriculum	MTLSS have been part of curriculum revision process in all content areas. Media Specialists have an active online learning community via Desire2Learn that provides access to curriculum resources and materials to support VSC. All Technology Education curricula is aligned to the Voluntary State Curriculum. Elementary keyboarding pilot program has been implemented in 9 schools.

Carroll County Public Schools Technology Implementation Plan		
Objective 1: Improve Student Learning Through Technology		
Targets for 2011	**Recommended Actions**	**Data Sources**
1.1 Digital content will be available before, during and after school to support teaching and learning.	Distribute all CCPS curricula in an electronic format (CD, web, the Learning Management System using consistent file navigation and naming convention. Provide integration of the MDK12 online databases and their use within the CCPS curricula. Ensure centralized access to all CCPS curriculum via SharePoint and Active Directory to provide anywhere, anytime access for students, teachers, and parents. Provide a real-time environment for curriculum revision and collaboration via a content management system (SharePoint).	CCPS Curriculum Maryland Technology Inventory CCPS Online Database usage statistics CCPS SharePoint Document Library (content repository)

1.2 Digital content that incorporates universal design will be integrated into all instruction, as appropriate, to support teaching and learning.	Incorporate digital content into curriculum material to integrate the MTLSS and to decrease the dependency on print materials. Promote the use of standards-aligned materials available through Thinkport.org and Thinkfinity.org to ensure best practices of technology integration.	Teacher observations and evaluations CCPS Curriculum Local formative and summative assessment data

| 1.3   Students and staff will have expanded access to curricula and support related to Maryland standards through online courses, content, collaboration, and support. | Promote the use of MVLO courses to support individual learning needs and course offerings.

Increase the usage of online HSA Courses offered through MSDE (Biology, English 2, Government, and Algebra/Data Analysis).

Increase the usage of online databases available to students and staff.

Provide 24/7 access to online collaboration, discussion, just-in-time support for curriculum content from supervisors, curriculum writers, and peers via SharePoint.

Promote the use of Desire2Learn (or similar Learning Management System) to provide online professional learning communities, collegial collaboration, and awareness of curriculum resources.

Explore alternative Professional Development strategies and methods for ongoing PD using Desire2Learn, Elluminate, and Web 2.0 technologies.

Provide digital video on-demand access to streaming media and rich content via Safari Montage or like provider. | Number of CCPS students enrolled in MVLO courses

Student and educator usage statistics for High School Assessment online courses and resources

Usage statistics from online databases

Desire2Learn usage statistics and facilitator feedback

Elluminate usage and facilitator feedback |

1.4 All students will have coordinated access to web-based information and resources through collaboration with and linkages to other portal providers.	Establish consistent access and navigation to curriculum materials for students. Provide SharePoint access to online resources for students that align to curriculum content. Continue to develop and upgrade the CCPS website.	CCPS website statistics and feedback Content provided via SharePoint for student access
1.5 Student, staff, and alternate education programs will have access to use digital resources after regular school hours	Increase access to online databases through the MDK12 Digital Library and CCPS website.	CCPS website statistics and feedback
1.6 All students will demonstrate mastery of technology literacy by the end of eighth grade as specified in the: • Maryland Student Technology Literacy Standards • School Library Media Voluntary State Curriculum • Technology Education Voluntary State Curriculum	Ensure that CCPS curricula incorporate strategies and lesson seeds that integrate the Maryland Technology Literacy Standards for Students. Increase awareness and accountability of CCPS Administrators and Supervisors of the Maryland Technology Literacy Standards for Teachers and Maryland Technology Literacy Standards for Administrators. Increase purposeful collaboration of media specialists with curriculum supervisors, curriculum writers, and classroom teachers to provide learning experiences that develop information literacy, communication, and technology literacy skills.	**http://www.bcps.org/techforadmin/** Usage of Administrator Look Fors and Toolkit resources School Library Media Information Literacy Toolkit

	Beyond 2011 Develop and publish model lesson plans and assessment items to measure technology-related knowledge and skills similar to BCPS **http://www.bcps.org/apps/CBTIA/**	

Objective 2: Improve Staff's Knowledge and Skills to Integrate Technology into Instruction

Targets:

2.1   All teachers and library media specialists will meet State-established standards for technology-related knowledge and skills.

2.2   All administrators at the school and district levels will meet State-established standards for technology-related knowledge and skills.

2.3   Instructional technology infusion specialists will be available for instructional and administrative staff members to assist with professional development and curriculum integration.

Progress to Date:

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Objective 2: Improve Staff's Knowledge and Skills to Integrate Technology into Instruction	
Targets for 2011	**Progress to Date**
2.1 All teachers and library media specialists will meet State-established standards for technology-related knowledge and skills.	Staff Development has provided a series of professional development opportunities to teachers K-5 specifically designed to support their awareness and application of the MD Technology Literacy Standards for Students (MTLSS) and Teachers. Over the past 5 years, more than 240 teachers have been involved in this ongoing training – offered in a traditional face-to-face workshop style, online learning community, and via Elluminate (synchronous meeting software). The workshops provide a balance of the instructional use of technology as well as the use of productivity software for teacher administrative use. There are a series of workshops offered to middle and high school teachers (4 high schools & 5 middle schools including 105 teachers thus far this year) designed to provide teachers an understanding of how to use the Microsoft Office Suite to support both student learning and teacher administrative and productivity use of technology. These workshops now also include a face-to-face component, online learning community, and Elluminate series. An online, graduate course has been written for and offered to CCPS teachers K-5 for the past three years using our Desire2Learn Learning Management System. This course is designed to provide teachers an in-depth look at the MD Technology Literacy Standards for Students and explicit instruction in how to create instructional resources and lesson planning that integrates the standards with CCPS curriculum content and has been completed by more than 75 teachers.

2.2　　　All administrators at the school and district levels will meet State-established standards for technology-related knowledge and skills.	Online graduate course and professional development workshops have been made available to all administrators and supervisors. Course content for our Aspiring Leaders Cohort at McDaniel College includes alignment to the Maryland Technology Standards for School Administrators.
2.3　　　Instructional technology infusion specialists will be available for instructional and administrative staff members to assist with professional development and curriculum integration.	Current staffing provides 4 Staff Development Facilitators and 3 Technology Infusion Specialists that provide direct professional development and curriculum integration support.

Carroll County Public Schools		
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Objective 2: Improve Staff's Knowledge and Skills to Integrate Technology into Instruction		
Targets for 2011	**Recommended Actions**	**Data Sources**
2.1 All teachers and library media specialists will meet State-established standards for technology-related knowledge and skills.	Incorporate the Maryland Online Teacher Profile Tool to determine comprehensive needs assessment and to plan for professional development opportunities at the system and school levels. Increase the number of teachers trained to facilitate online learning communities and course offerings. Increase the number of high-quality professional development hybrid and online courses and e-communities to provide learning opportunities that incorporate technology-related knowledge and skills. Revise observation and evaluation process to include the expectation that instructional technology is effectively implemented. Build capacity of teachers in a resource role (SLM, Math, Science, ILA, etc.) to support technology-related professional development.	Maryland Online Teacher Profile Tool Online MSDE offerings Professional Development offerings Teacher observation & evaluations

| 2.2 All administrators at the school and district levels will meet State-established standards for technology-related knowledge and skills. | Provide professional development opportunities for administrators to understand the Maryland Teacher Technology Standards and the Maryland Technology Literacy Standards for Students.

Adopt and implement the MD Technology Standards for School Administrators into the Aspiring Leaders Cohort program.

Explore the possibility of using the Online Technology Toolkit for Administrators to assess the knowledge and skills of administrators and plan professional development opportunities accordingly.

Revise administrator evaluation process to include criteria and standards-based outcomes that are technology related.

Set an expectation that administrators will support and reinforce instructional uses of technology. | Professional Development offerings

CCPS Observation and Evaluation |

2.3 Instructional technology infusion specialists will be available for instructional and administrative staff members to assist with professional development and curriculum integration.	Revise the current role of Staff Development Facilitators to align more closely with content area supervisors and curriculum writing efforts that integrate technology. Explore models that support professional development and curriculum integration. Build capacity of technology infusion staff to provide high quality professional development using a variety of delivery methods and technology tools.	CCPS Curriculum

Objective 3: Improve Decision-Making, Productivity, and Efficiency at all Levels of the Organization through the Use of Technology

Targets:

3.1   All CCPS staff will use electronic information and communication tools to improve management and operational efficiency.

3.2   CCPS will provide leadership and support to all schools in access and use of technologies for administrative and operational purposes.

3.3   CCPS will develop processes and strategies to provide access to digital resources, data, and information after school hours.

3.4   CCPS will develop processes and strategies to provide electronic communication with educators, students, parents, and members of the community.

3.5   CCPS will develop and implement data management systems, integration student information systems, curriculum/content management systems and learning managements systems.

3.6   CCPS will use student, school, and district data for analysis and decision-making.

Progress to Date:

During this past year, we have secured or renewed annual contracts for the following new programs and technologies:

Product	Description
Desrire2Learn	Desire2Learn is our online learning management system used for professional staff development which includes online learning communities.
TurnItIn	The anti-plagiarism software which is available to all high school teachers and students in the system. We plan to expand this to the middles school level as funding permits.
PhoneMaster	An automated phone dialing system which can be program to contact a large numbers of household to deliver information about upcoming school events.
VISION	A classroom management program which teachers can use to monitor and record student progress on classroom assignments and assessments.
Rediker	A discipline management package which is used in all of the high schools to track and manage student discipline infractions in order to modify behavior.
elluminate	An online conferencing tool, to assist staff in participating in ongoing professional development, attend online meetings, and collaborate of curriculum writing at their convenience without the need for leaving the classroom during the school day.
Ultimate Survey	An online survey tool that allows various types of surveys to be developed and delivered. Surveys have been utilized for gathering data to affect instructional decisions and determine future curriculum initiatives.
Schedule Pro	A module of SASI which was used by all high schools to create their master schedules for the academic year.

Web Portal Applications

During this past year, we continued to develop and enhance the following CCPS-designed or third party applications:

Application Name	Detailed Description
Administrative Reports (CCPS Info System)	This application was designed to include virtually all student information in one program. It has a variety of sections. It allows users to select students who meet certain criteria using local and state assessments, services and attendance information. Users can "Build Your Own Report" with a combination of selected student data criteria or see all information on an Individual Student from a student dropdown menu. Each assessment/area also has its own menu item that allows for selection of more specific information.
Assessment System	Original Assessment score entry system allows for entry of local assessments per curriculum area (ex: Language Arts, Art, Phys Ed, etc). Basic reporting is also provided for these assessments. Same assessments are used as part of Administrative Reports and other programs.
Community Learning Center	This application keeps track of students enrolled in a particular service (Community Learning Center). It tracks their status before and after the service (grades, scores, etc). Fees and attendance are also tracked within the application.

Elementary Grading System	This application contains various elementary grading related tools. It includes: • Report cards (currently being piloted by 13 schools) • MMSR – data collected for Kindergarten and Pre-K students • Elem Score Entry – provides an area for teachers to enter single scores. Currently only Rigby data is collected here. Local Math Benchmarks – teachers essentially "bubble-in" student responses for the local math benchmarks. It is used in January and May for grades K through 5.
Enrollment Report	Produces monthly or on demand enrollment report summarizing total students by grade/school and giving specific totals by grade groups.
ESOL/IPT Testing	Application allows for tracking of specific Limited English Proficiency testing. Keeps detailed scores of each section of the test.
Family Involvement	Application tracks specific family events. Used specifically for Title I students, any area could use this program. Allows for entry of event information and then batch and individual attendance. Provides attendance reports.
Finance Information Center	Web based application that provides a list of 'club' accounts pulled from Finance Plus for each school. The school Principal can view these accounts and assign 'managers' to the account. When they add a manager that person is automatically given rights to the FIC system so they can log in, view transactions and verify account balances.
Flexible Student Support	System where Student Services can track additional information regarding their Flex Support students.

Free and Reduced Meals	This application allows for tracking students who qualify (or are turned down) for Free and Reduced Meals. Family applications are filled out and income is calculated automatically. The system calculates whether the family qualifies and keeps each student's record with that information. The system also keeps track of students direct certified from the state. Food stamp and TCA applications. This system is also used for state reporting purposes.
Highly Qualified Teachers Database	Application used by HR to manually review the results from the State CLM file and make notes for the resubmission in the Spring.
Master Plan	Comprehensive Master Plan is an application that turns what used to be a giant folder into a living document online. Track what departments are doing to further CCPS goals using this application.
Novus HR	Third Party Online application management system.
OASES	System designed to track and report on special education students. Also allows for completion of all required legal documents related to special education or 504 plans. Use this system to pull Special Education students for state reporting purposes.
Out of District System	Web application that tracks students who have requested to attend an out of district school.
Professional Development System	Allows staff to sign up for courses offered by Staff Development.
SASI Resource Center	Extension to the SASI application. Includes tips and tricks, special reports, upcoming trainings and a searchable knowledgebase.

School Counselor Web Center	The SCWC is an application for printing and transmitting transcripts for college admission. It also includes a function for counselors to be able to track courses taken and courses that need to be taken by student.
Services/ Interventions	Application allows for entry and reporting of services (other than Special Education) that the student receives. Keeps specific dates, school, reasons for each service. Services also feed into Administrative Reports and other applications. Used for record keeping of what services student has been offered.
Staff/Student Interactions	Used to create and log cases involving staff members and students.
Student Info Center	Provides additional reports and functionality not currently offered within SASI (attendance related, grading and course reports, etc.)
Suspension System	Online student suspension system.
Technology Services Support Center	All users are given rights to this system so they can submit their own Help Desk calls. Tech Services staff are given special rights so they can manage the calls, run reports, manage computer inventory, upload documents and forms, and submit calls to BMC (they handle our hardware warranty repairs).

Testing & Assessment Center	• ART – Advanced Reporting Tool is used by teachers to view information about their student's MSA and HSA scores. • HSA Takers – allows schools to input student scores and also mark who took the HSAs for the State Posttest file • MSA Takers – allows schools to mark who took the MSAs for the State Posttest file • General Reporting – currently only contains one report which is a snapshot of a student's demographic and testing data. • Elem to MS Transitions – elementary school teachers enter reading and math recommendations for their exiting 5th graders in May. Once the data has been entered the middle school users then retrieve a list of their incoming 5th graders, their reading and math recommendations and various other test score information so they can properly place the student in their school.
Technology Services Project Center	Currently allows Tech Services staff to track and collaborate on projects, manage their individual task list, assign tasks and run reports on their projects.
Volunteer Tracking System	Web Application that manages the system-wide volunteer information, including volunteer training history as well as volunteered hours/occasions per volunteer. Designed so volunteers could electronically sign in and out of the school via a 'volunteer' computer located in the main office. The program also includes an area where registered users can maintain the volunteer's information.

Carroll County Public Schools
Technology Implementation Plan

Objective 3: Improve Decision-Making, Productivity, and Efficiency at All Levels of the Organization Through the Use of Technology

Targets for 2011	Progress to Date
3.1 All CCPS staff will use electronic information and communication tools to improve management and operational efficiency.	All CCPS employees are provided with a GroupWise email account All classroom teachers use SASI to record attendance CCPS Report cards are completed electronically The use of an Electronic Elementary Report Card system is being phased in to all Elementary Schools. Secondary teachers use IG-Pro to record grading Facilities documents and archived plans are available via SharePoint Human Resource documents are stored electronically and are available via SharePoint Student Transcript documents are stored electronically and are available via SharePoint Human Resources provides and utilizes an electronic management system for applications All middle and high schools utilize an electronic scheduling process Student discipline is captured electronically. Health room activity is captured electronically.

3.2 CCPS will provide leadership and support to all schools in access and use of technologies for administrative and operational purposes.	Staff Development and Technology Services has provided ongoing training and support in the use of the many applications within the CCPS Web Portal such as Professional Development Center, The School Counselor Web Center, SASI Resource Center, and The Assessment Center.

3.3 CCPS will develop processes and strategies to provide access to digital resources, data, and information after school hours.	All staff has remote access to email at all times. Access to digital resources after school hours via the CCPS network is not available for students except under specifically approved school-related activities. Selected staff members have VPN access to digital resources and applications including OASES—the Special Education database and application on a pre-approved, job-required basis.
3.4 CCPS will develop processes and strategies to provide electronic communication with educators, students, parents, and members of the community.	Electronic communication between stakeholders has been made possible by the use of e-mail, and a system-wide contact system for staff and parents.
3.5 CCPS will develop and implement data management systems, integration student information systems, curriculum/content management systems and learning managements systems.	Technology Services has designed and created a number of specific applications available through the Technology Services Web Portal which provides access to various intranet-based applications. (See list of applications on pages 36-40). All data management systems are located in this portal and access rights are granted through job roles and responsibilities and the Login Request and Approval Procedure. SASI is the student information system used and Desire2learn is our learning management system.

3.6 CCPS will use student, school, and district data supplied for analysis and decision-making.	The Testing & Assessment Center has been updated and has been used by teachers to view information about their student's MSA and HSA scores. Members from the Assessment and Accountability Department have provided training and professional development to classroom teachers and administrators on data-driven decision making.

Carroll County Public Schools		
Technology Implementation Plan		
Objective 3: Improve Decision-Making, Productivity, and Efficiency at All Levels of the Organization Through the Use of Technology		
Targets for 2011	**Recommended Actions**	**Data Sources**
3.1 All CCPS staff will use electronic information and communication tools to improve management and operational efficiency.	Migrate all staff to Microsoft Outlook for email communication and integration with Active Directory services and SharePoint access. Provide document repository access to both historical documents and system-wide resources for consistent retrieval and storage. Provide high-quality professional development opportunities for all staff to acquire and expand job-specific technology-related skills. Develop an online Professional Development Management System that will provide a calendar of professional development offerings, facilitate enrollment into course offerings, and document teacher participation. Revise observation and evaluation procedures/tools to reflect the expectation of job-related technology knowledge and skills for all staff.	Administrator observation Performance evaluations Monitoring management and operational efficiency Professional Development Management System

3.2 CCPS will provide leadership and support to all schools in access and use of technologies for administrative and operational purposes.	Develop a coordinated plan for professional development in the use of the Web Portal applications, SASI, and student data tools (ART).

Work toward integrating Desire2Learn, Elluminate, and SharePoint to provide ongoing support for the administrative use of technology. | School Improvement Plans

Professional Development Plans |
| 3.3   CCPS will develop processes and strategies to provide access to digital resources, data, and information after school hours. | Establish SharePoint as content management system for system and local school communication with teachers, students, parents, and community.

Provide teachers and schools with individual SharePoint sites including document libraries, discussions, and announcements. | Online Technology Inventory |
| 3.4   CCPS will develop processes and strategies to provide electronic communication with educators, students, parents, and members of the community. | Establish SharePoint as content management system for system and local school communication with teachers, students, parents, and community.

Provide teachers and schools with individual SharePoint sites including document libraries, discussions, and announcements.

Ensure immediate communication to parents via Phone Master for alerts and emergency information.

Beyond 2011
Provide parents and students with real-time data on student performance via SharePoint. | Online Technology Inventory |

3.5 CCPS will develop and implement data management systems, integrated student information systems, curriculum/content management systems and learning managements systems.	Improve operational efficiency for routine processes including substitute form generation, Human Resources/Technology Services (New User Login form), AV Buying Guide & Procurement procedures. Establish SharePoint as an integrated system for access to data management tools, student information, curriculum resources, and learning management.	Monitoring management and operational efficiency
3.6 CCPS will use student, school, and district data supplied for analysis and decision-making.	Research, acquire, and maintain handheld technology that will provide administrator access to student, school, and district data to support the observation process, decision making, and professional development needs. Integrate all available student, school, and district data into SharePoint access for teachers and administrators.	Online Technology Inventory Administrative Reports CCPS Info System Assessment System Testing & Assessment Center

Objective 4: Improve Equitable Access to Appropriate Technologies Among all Stakeholders

Targets:

CCPS will provide:

4.1.1   One high performance computer per educator for administrative and instructional use

4.1.2   One high performance computer or computing device per student at the secondary level

4.1.3   A 3:1 student to computer ratio at the elementary level

4.1.4   Access to a variety of other technology devices.

4.1.5   One computer projection device/display unit per instructional area.

4.1.6   Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms.

4.1.7   A secure computing environment to ensure safe access.

4.2   Polices and procedures in place to address accessibility of resources and to meet the needs of all students.

4.3   Access to technology before and after school hours.

4.4.1   Technical support using an established responses system.

4.4.2   At least one full-time technical support person for every 300 computers.

4.4.3   At least one full-time LAN administrator per 40 servers.

4.4.4   At least one full-time WAN administrator per 25 sites.

Progress to Date:

Carroll County Public Schools Technology Implementation Plan	
Objective 4: Objective 4: Improve Equitable Access to Appropriate Technologies Among all Stakeholders.	
Targets for 2011	**Progress to Date**
4.1.1 CCPS will provide: One high performance computer per educator for administrative and instructional use.	All CCPS staff has access to a high performance computer as part of the five-year replacement cycle. Specifically for teachers, all high school and middle school teachers have laptops assigned to them.
4.1.2 One high performance computer or computing device per student at the secondary level.	We have improved our high school student to computer ratio from 5:1 to 3:1 and our middle school student to computer ratio from 5:1 to 3.75:1.
4.1.3 CCPS will provide: One high performance computer or computing device per student at the secondary level and a 3:1 student-to-computer ratio at the elementary school .	We have improved our elementary school student to computer ratio from 6:1 to 4.5:1.

4.1.4 CCPS will provide: Access to a variety of other technology devices to maximize student learning.	CCPS has provided access to a numerous variety of technological devices that have maximized student learning: • **INTEGRATED PRESENTATION CART (Smart-Cart)**—a CCPS custom-designed integrated presentation cart which was piloted, tested, and evaluated in elementary schools and is now standard equipment in all new CCPS schools. • **PDA's**—Handhelds for student use has been piloted in a selected middle school and funded through the Ed-Tech formula funds. • **Interactive Response Systems**—These systems have been tested in middle and high schools and allow for multiple responses from students and provides a quick and efficient data-collection tool for teachers.
4.1.5 CCPS will provide: One computer projection device or display unit per classroom and other instructional areas.	CCPS has standardized the SMART-CART for all new schools. These carts have a built-in projection system and the vision of CCPS is to have one of these in all classrooms. This has been cost neutral enhancement for newly constructed schools because CCPS has eliminated the need for wall-mounted televisions and media retrieval systems and replaced them with the SMART-CART.

4.1.6 CCPS will provide: Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms, to support the use of high-quality digital learning resources.	CCPS is the primary partner (CCPS CIO is Chairman) within the Carroll County Public Network consortia (CCPN) whose focus is to enhance Carroll County's telecommunications opportunities through the implementation of innovative technologies, to eliminate duplication of effort, to reduce the overall financial expense of operation and maintenance through consolidation and economies of scale, and to serve as a contact point on data communications and infrastructure for officials, managers, and technicians among the partnership. The fiber optic network is currently in Phase 1 (which includes 13 schools) and this network will replace a WAN of T-1 leased connection circuits. Currently, three CCPS schools are on the fiber optic network.
4.1.7 CCPS will provide: A secure computing environment to ensure safe access and information integrity.	CCPS currently uses multiple Firewalls and CIPA-compliant content filtering to ensure safe access. Security logs and random spot checking of security breaches is also conducted. Virus scanning, desktop services and rights-based security policies are used as well as standard security protocols such as IPS, SSL and IPSec, and Client VPN.
4.2 CCPS will have policies and procedures in place to address equivalent accessibility to technology-based products for students, as defined by Education Article §7-910 of the Public Schools - Technology for Education Act.	CCPS has an Acceptable Use Policy for both staff and students which has been approved by the Board of Education. The AUP for existing staff is verified twice annually at network login. The AUP for students is included in all student handbooks as well as the yearly Informational Calendar which are both distributed to all current and new students annually. A copy of the current plan is included at the end of this plan.
4.3 CCPS will provide access to technology after school hours to all learners.	CCPS allows access to technology after school hours to pre-approved, selected groups and organizations. These groups include but are not limited to adult education and non-profit organizations. Access to use of technology resources are centrally approved and administered and monitored by the site-based administrators.

4.4 .1 CCPS will provide: Technical support using a locally established response system, including an adequately staffed, efficient help desk.	CCPS uses an internally developed help desk system called the Technology Services Support Center Application. The application allows users to enter and monitor help desk requests. The application is supported by 8 full time employees who rotate around the support of this application.
4.4 .2 CCPS will provide: At least one full-time technical support person for every 300 computers.	CCPS currently has 8 full time employees to provide technical support.
4.4 .3 CCPS will provide: At least one full-time LAN administrator per 40 servers.	CCPS currently has the equivalent of 1 full time employee to provide this support. It is a shared responsibility among several people.
4.4 .4 CCPS will provide: At least one full-time WAN administrator per 25 sites.	CCPS currently has the equivalent of a.5 full-time employee to provide this service. The current WAN administrator has other duties which reduce their capacity to support this to a .5 FTE.

Carroll County Public Schools Technology Implementation Plan		
Objective 4: Improve Equitable Access to Appropriate Technologies Among all Stakeholders.		
Targets for 2011	**Recommended Actions**	**Data Sources**
4.1.1 CCPS will provide: One high performance computer per educator for administrative and instructional use.	Continue supplying one computer per educator and extend this to one high performance computer for every elementary teacher. <u>Beyond 2011</u> Reduce the replacement cycle from 5 to 3 years due to the shortened life span of laptops computers versus desktops.	CCPS Online Technology Inventory
4.1.2 CCPS will provide: One high performance computer or computing device per student at the secondary level.	Continue to review based on instructional need and resource appropriately based on available funds. <u>Beyond 2011</u> Continue to review based on instructional need and resource appropriately based on available funds.	CCPS Online Technology Inventory

4.1.3 CCPS will provide: A 3:1 student-to-computer ratio at the elementary school.	Strive to improve on the existing 3:1 student-to-computer ratio based on instructional need and resource appropriately based on available fiscal resources. Beyond 2011 Strive to improve on the existing 3:1 student-to-computer ratio based on instructional need and resource appropriately based on available fiscal resources.	MSDE Inventory CCPS Online Technology Inventory CCPS and National Research Trend Data
4.1.4 CCPS will provide: Access to a variety of other technology devices to maximize student learning.	Continue to support and encourage the instructional use of new and emerging technologies that are supportable and aligned with curricular needs.	Online Technology Inventory Classroom Observation data Supervisor Observation data
4.1.5 CCPS will provide: One computer projection device or display unit per classroom and other instructional areas.	Continuation of CCPS-defined solution which supports the site-based funding of projection and display devices. CCPS defines what device or display unit can be purchased and funding is left up to the individual schools. Beyond 2011 CCPS will seek a centralized system-wide budget for updating and retro-fitting existing schools.	MSDE Inventory CCPS Online Inventory

4.1.6 CCPS will provide: Connection to a broadband speed LAN/WAN from every instructional and administrative area, including all re-locatable classrooms.	Continue to support and assist in the CCPN fiber optic network installation and add schools to the completed sections when it becomes available. Beyond 2011 Continue to support and assist in the completion of the CCPN fiber optic network installation to include all schools and offices.	CCPS Progress Reports CIP Budget and Infrastructure Reports
4.1.7 CCPS will provide: A secure computing environment to ensure safe access and information integrity.	Implementation of a Enterprise wireless solution for wireless connectivity. Completion of Active Directory and Single-Point Authentication. Adoption of role-based security policies. Beyond 2011 Continue to address latest technology threats and scale solutions appropriately.	Financial Audit DBM Standards CCPS Internal Audit
4.2 CCPS will have policies and procedures in place to address equivalent accessibility to technology-based products for students, as defined by Education Article §7-910 of the Public Schools - Technology for Education Act.	Include the Technology Advisory Council in the review process of procedures and include specific C3 standards in revisions of AUP for student and staff. Beyond 2011 Review and continue to monitor procedures and related issues as they come up and are included in new and emerging technologies.	CCPS Acceptable Use Policy CIPA FERPA

4.3 CCPS will provide access to technology after school hours to all learners.	Explore the wireless enterprise solution which will allow after school access to a "Guest" network for Internet accessibility. Beyond 2011 Explore the wireless enterprise solution which will allow after school access to a "Guest" network for Internet accessibility and define appropriate resources to support extended and after-school access.	Use of Facilities Reports by local schools
4.4 .1 CCPS will provide: Technical support using a locally established response system, including an adequately staffed, efficient help desk.	Continue to modify the Technology Services Support Center Application as needed and continue to make efforts to staff accordingly to recommended MSDE ratios as budgets allow.	Help Desk Reports CCPS Annual Budget CCPS Annual Performance Reviews
4.4 .2 CCPS will provide: At least one full-time technical support person for every 300 computers.	CCPS will continue to make efforts to staff accordingly to the recommended MSDE ratios as budgets allow.	CCPS Annual Budget MSDE Technology Plan

4.4 .3 CCPS will provide: At least one full-time LAN administrator per 40 servers.	CCPS will continue to make efforts to staff accordingly to the recommended MSDE ratios as budgets allow.	CCPS Annual Budget MSDE Technology Plan
4.4 .4 CCPS will provide: At least one full-time WAN administrator per 25 sites.	CCPS will continue to make efforts to staff accordingly to the recommended MSDE ratios as budgets allow.	CCPS Annual Budget MSDE Technology Plan

Objective 5: Improve Instructional Uses of Technology through Communication and Collaboration

Targets:

5.1   CCPS will continue to communicate with the Technology Advisory Council and other key stakeholders such as parents and community members, issues about existing research on the effective use of new and emerging technologies for teaching and learning as well as the analyzed data from sources such as the Maryland Technology Inventory.

5.2   CCPS will continue to utilize the Technology Advisory Council for their input on technology related issues and related strategies pertaining to technology-related business partnerships and funding issues specific to technology procurement.

5.3   CCPS will continue to collaborate with Carroll Community College, McDaniel College, Johns Hopkins University, the University of Maryland, and the Maryland State Department of Education to stay abreast of current and new technology trends and issues.

5.4   CCPS will collaborate with the Technology Advisory Council to continuously review and evaluate all components of the Technology Implementation Plan including , its' success, the importance of technology and long-term funding.

5.5   CCPS will communicate to appropriate stakeholders the annual budget used to purchase wiring (and related components) equipment, software, online resources, and telecommunications services.

5.6   CCPS will communicate to appropriate stakeholders, the annual budget that will project costs for on-going maintenance, supplies, and replacement of outdated equipment and resources.

5.7   CCPS will create an annual budget that will project annual allocations for professional staff development.

Carroll County Public Schools	
Technology Implementation Plan	
Objective 5: Improve Instructional Uses of Technology through Communication and Collaboration	
Targets for 2011	**Progress to Date**
5.1 CCPS will continue to communicate with the Technology Advisory Council and other key stakeholders such as parents and community members, issues about existing research on the effective use of new and emerging technologies for teaching and learning as well as the analyzed data from sources such as the Maryland Technology Inventory.	The CCPS Technology Advisory Council was formed in January of 2008 and was comprised of selected teachers, administrators and central office staff to represent each and every facet of the school system's organization. Monthly meetings were held in the winter and spring of 2008 to discuss technology issues and disseminate information about issues in the classroom and components of the technology plan.
5.2 CCPS will continue to utilize the Technology Advisory Council for their input on technology related issues and related strategies pertaining to technology-related business partnerships and funding issues specific to technology procurement.	Technology Advisory Council Members participated in discussions related to the procurement and funding of technology infrastructure and equipment during the scheduled meetings during the winter and spring of2008.
5.3 CCPS will continue to collaborate with Carroll Community College, McDaniel College, Johns Hopkins University, the University of Maryland, and the Maryland State Department of Education to stay abreast of current and new technology trends and issues.	CCPS has sent employees to various colleges and universities as a part of regular job functionality within the departments of Technology Services and Curriculum Development. Discussion topics have included: online courses for students in concurrent enrollment, online courses and related training for teachers, and the design and delivery of e-Learning environments.

5.4 CCPS will collaborate with the Technology Advisory council to continuously review and evaluate all components of the Technology Implementation Plan including , its' success, the importance of technology and long-term funding.	The Technology Advisory Council has been informed of the budgeting process and funding requirements during the meeting held in 2008. They were made aware of the process CCPS goes through on an annual basis to acquire and sustain both long and short term funding for technology.
5.5 CCPS will communicate to appropriate stakeholders the annual budget used to purchase wiring (and related components) equipment, software, online resources, and telecommunications services.	The funding for required technology is a portion of the annual CCPS operating budget which is communicated and published to all members of the public in a variety of formats. The Superintendent discusses the budget with community members in several open public forums or Public Hearings. Once approved, the budget is presented by the Board of Education to the County Commissioners who then allocates the final budget. http://www.carrollk12.org/whatsnew/pdf/budgetpresentation.pdf
5.6 CCPS will communicate to appropriate stakeholders, the annual budget that will project costs for on-going maintenance, supplies, and replacement of outdated equipment and resources.	The funding for required technology is a portion of the annual CCPS operating budget which is communicated and published to all members of the public in a variety of formats. The Superintendent discusses the budget with community members in several open public forums or Public Hearings. Once approved, the budget is presented by the Board of Education to the County Commissioners who then allocates the final budget. http://www.carrollk12.org/whatsnew/pdf/budgetpresentation.pdf

5.7 CCPS will create an annual budget that will project annual allocations for professional staff development.	Local resources for professional development are used as needed for both school-based and system initiatives. Portions of Title II funds are also used for professional staff development.

Carroll County Public Schools		
Technology Implementation Plan		
Objective 5: Improve Instructional Uses of Technology through Communication and Collaboration		
Targets for 2011	**Recommended Actions**	**Data Sources**
5.1 CCPS will use continue to communicate with the Technology Advisory Council and other key stakeholders such as parents and community members, issues about existing research on the effective use of new and emerging technologies for teaching and learning.	Continue to use the Technology Advisory Council to communicate about issues surrounding new and emerging research and issues surrounding the implementation of technology in the classroom including digital content in curricula guides. Invite Council members to attend professional conferences and events that support technology integration. <u>Beyond 2011</u> Continue to seek the input of the Technology Advisory Council and increase its membership.	Technology Advisory Council Meetings CCPS Curricula Guides Research Trends and Issues Presentations

5.2 CCPS will use continue to utilize the Technology Advisory Council for their input on technology related issues and related strategies pertaining to technology-related business partnerships and funding issues specific to technology procurement.	Continue to produce cost-effective annual budgets that adequately fund all areas of technology. Continue to use the Technology Advisory Council to communicate about issues surrounding funding and the sustainment of funding on a long-term basis for technology in the classroom.	CCPS Annual Budget Technology Advisory Council Meetings
5.3 CCPS will continue to collaborate with Carroll Community College, McDaniel College, Johns Hopkins University, the University of Maryland, and the Maryland State Department of Education to stay abreast of current and new technology trends and issues.	Continue to use and share resources between the colleges and universities in the areas of online resources and professional development for both students and staff members.	Research Trends and Issues Presentations Attendance at meetings with outside agencies
5.4 CCPS will collaborate with the Technology Advisory council to continuously review and evaluate all components of the Technology Implementation Plan including long-term funding.	Create and post the Technology Implementation Plan online for review and feedback from all stakeholders. Continue periodic meetings with TAC to both monitor and evaluate progress and discuss current topics such as funding.	CCPS Annual Budget Technology Advisory Council Meetings

5.5 CCPS will communicate to appropriate stakeholders the annual budget used to purchase equipment, software, online resources, and telecommunications services.	Continue to produce effective annual budgets that adequately fund technology used by the school system. Continue to research and locate alternate funding sources to augment current budget. Beyond 2011 Strive to maintain and adequate annual budget that both sustains and allows for future growth of infrastructure and instructional uses of technology.	Technology Advisory Council Meetings CCPS Annual Budget
5.6 CCPS will communicate to appropriate stakeholders, the annual budget that will project costs for on-going maintenance, supplies, and replacement of outdated equipment and resources.	Continue to produce effective annual budgets that adequately fund technology used by the school system. Continue to research and locate alternate funding sources to augment current budget. Beyond 2011 Strive to maintain and adequate annual budget that both sustains and allows for future growth of infrastructure and instructional uses of technology.	Technology Advisory Council Meetings CCPS Annual Budget

5.7 CCPS will create an annual budget that will project annual allocations for professional staff development.	Continue to produce effective annual budgets that adequately fund technology used by the school system—specifically in the area of staff development continue to research and locate alternate funding sources to augment current budget. Beyond 2011 Strive to maintain and adequate annual budget that both sustains and allows for future growth of infrastructure and instructional uses of technology.	Technology Advisory Council Meetings CCPS Annual Budget

Acceptable Use Policy

<u>**TELECOMMUNICATIONS ACCEPTABLE USE PROCEDURE FOR EMPLOYEES**</u>

Reference Policy: IJND - TELECOMMUNICATIONS POLICY

The Board of Education of Carroll County (the "Board") recognizes that e-mail is an efficient form of communication that may help school system administrators and staff to better perform their public duties. The use of e-mail, however, raises a number of issues concerning archival storage, privacy interests, and rights under the Maryland Public Information Act (the "PIA") and the Family Educational Rights and Privacy Act ("FERPA"). The Board also recognizes the value of Internet research as well as the risks involved with Internet use that is inappropriate for a school or workplace setting. This procedure is intended to address these issues and to provide guidance on the appropriate use of CCPS network communication facilities which provide e-mail messaging and access to the Internet.

1. <u>Public Purpose</u>. The Board provides computer hardware, software, Internet, and e-mail programs for the limited purpose of helping the Carroll County Public Schools' administrators and staff in the furtherance of their public duties. The use of e-mail or the Internet should be limited to this purpose. Board employees should refrain from using school system e-mail or the Internet for private purposes during business hours. Use for lobbying, commercial or illegal purposes is strictly prohibited.

2. <u>No Expectation of Privacy</u>. Board employees have no legitimate expectation of privacy in e-mail communications sent or received on school system computers or in any material obtained or sent over the Internet on school system computers. All e-mail communications and Internet files are subject to inspection without prior notice.

3. <u>Public Information</u>. E-mail communications sent or received on school system computers may be subject to public disclosure pursuant to the provisions of the PIA. Accordingly, it is essential that school administrators and staff not send information via e-mail that they would not put on school system letterhead.

4. <u>Student Information</u>. E-mails containing personally identifiable student information may be considered student records for purposes of FERPA. Accordingly, such e-mails should be kept to a minimum. In those limited circumstances where it becomes necessary to send an e-mail containing personally identifiable student information, it is important to make a paper copy of the e-mail and save it in the student's file.

5. <u>Password Security</u>. Many systems provided by the Board need to be secure. Any system accessed via an account with a user login name and password is a system that needs to be secure. Accounts are to be accessed only by the account owner. Passwords are not to be shared with anyone except for troubleshooting, initial setup or life threatening emergency situations. The account owner is responsible to keep his/her password information confidential.

6.   E-mail Archives. Most e-mail communications have no archival value. Therefore, most e-mail communications should not be saved or backed-up. Accordingly, an automatic ninety (90) day delete routine will be applied on all e-mails. Any e-mail communication that must be saved should be archived as soon as possible after it is sent or received. E-mail communications not archived will be deleted after ninety (90) days.

7. Inappropriate Material. When e-mail communications from outside sources contain material such as jokes, greeting cards, defamatory statements, discriminatory statements, obscenities, or pornographic images, they should be deleted as soon as possible. These items should not be circulated to other administrators or staff or to persons outside the school system. Such material may only be saved or forwarded for the purpose of conducting a disciplinary investigation. Board employees must not, at any time, intentionally receive or distribute material on school system computers that is abusive, harassing, libelous, obscene, profane, pornographic, threatening, sexually explicit, or illegal or purports to speak for the Board.

8.   Disruption of Systems. Board employees must not use or permit or enable others to use the Board's network resources to infiltrate, disrupt, or harm computer systems within or outside the Board's wide area network.

9.   Disciplinary Action. Failure to abide by the terms of this Procedure may result in disciplinary action which, in the discretion of the Superintendent and the Board, may include suspension or termination of employment in appropriate cases.

10.   Agreement to Procedure. As a condition precedent to using the Board's Internet and e-mail programs and resources, all employees must agree to abide by the terms and conditions of this Procedure

Signature   Date
Full Name (Please print)   Job
Work Location   Work Telephone

Glossary of Terms

Term	Definition	Page Number Reference(s)
Active Directory	An implementation of directory services by Microsoft and its main purpose is to provide central authentication and authorization services for Windows-based computers. Active Directory also allows administrators to assign policies, deploy software, and apply critical updates to an organization.	24, 45, 55
ART	Advanced Reporting Tool is used by teachers to view information about their student's MSA and HSA scores.	40, 46
AUP	Acceptable Use Policy—Document signed by all CCPS employees which outlines their responsibilities when using technology equipment and related resources.	51, 55
AV Buying Guide	CCPS Document which lists the audio-visual technology components which are approved by Technology Services and available for schools to purchase.	47
BrainPOP	BrainPOP is a developer of animated instructional content that is used in the elementary grades. http://www.brainpop.com	22
CIPA	The Children's Internet Protection Act (CIPA) is a federal law enacted by Congress in December 2000 to address concerns about access to offensive content over the Internet on school and library computers. CIPA imposes certain types of requirements on any school or library that receives funding support for Internet access or internal connections from the "E-rate" program – a program that makes certain technology more affordable for eligible schools and libraries. In early 2001, the Federal Communications Commission (FCC) issued rules implementing CIPA. http://www.fcc.gov/cgb/consumerfacts/cipa.html	51, 55

Client VPN	A VPN is a virtual private network. A VPN provides a secure and encrypted connection to a secure network from a remote computer via the internet. A Client-based VPN requires the installation of software to allow this functionality.	51
Desire2Learn (D2L)	The Learning Management System used by CCPS to plan, implement, and access online courses and related resources. http://www.desire2learn.com/	21, 22, 23, 26, 29, 35, 43, 46
edClass	Digital content provider which provides interactive resources for both students and teachers. http://www.edclass.com/	22
Elluminate	Webinar tool which allows synchronous visual and audio communication and file sharing via the Internet. http://www.elluminate.com/	22, 26, 29, 35, 46
ESOL/IPT	CCPS designed and developed application allows for tracking of specific limited English Proficiency testing. The program keeps detailed scores of each section of the test.	37
Firewall(s)	A device or set of devices configured to permit, deny, encrypt, or proxy all computer traffic between different security domains based upon a set of rules and other criteria.	51
GroupWise	Novell's email application	41
Guest Network	A separate logical network that is provided for outside users to connect to the internet from the same physical network. This separation provides security and isolation so that "guests" can access the internet without having to login and connect to the network resources of the organization.	56
HSA	The High School Assessments, or HSAs, are four exams—one each in algebra/data analysis, biology, government, and English—that all students who entered 9th grade in or after 2005 must take and pass in order to graduate. (Students who entered 9th grade in or before 2004 are required only to **take** the HSAs.) http://www.marylandpublicschools.org/msde/testing/hsa	21, 22, 26, 40, 44
IG-Pro	A module of SASI that is an electronic grade book program used by middle and high school teachers.	41

Intranet	A private CCPS network that uses Internet protocols and network connectivity to securely share information with all staff.	21
IPS	Intrusion Protection System – Network Monitoring system to detect hackers accessing your system.	51
IPSec (IP security)	A suite of protocols for securing Internet Protocol (IP) communications by authenticating and/or encrypting data.	51
LAN	A network covering a small geographic area, like a home, office, or a school.	48, 51, 52, 55, 57
Maryland Online Teacher Profile Tool	MSDE grant-funded initiative to develop, pilot, evaluate, and recommend for use an online technology profile tool for teachers based on the *Maryland Teacher Technology Standards* (MTTS). http://www.bcps.org/offices/oit/Profile.htm	27, 31
MMSR	Maryland Model for School Readiness is an assessment and instruction system designed to provide parents, teachers, and early childhood providers with a common understanding of what children know and are able to do upon entering school. http://mdk12.org/instruction/ensure/MMSR/MMSRFA1.html	37
MSA	The Maryland School Assessment--is a test of reading and math achievement that meets the testing requirements of the federal No Child Left Behind Act. The test is given each year in early March in reading and math at grades 3 through 8. http://www.marylandpublicschools.org/msde/testing/msa	40, 44
MTLSS	Maryland Technology Literacy Standards for Students—A series of standards developed by MSDE to define the skills necessary for students to be technologically literate. http://www.montgomeryschoolsmd.org/departments/techlit/	23, 25, 29
MVLO	Maryland Virtual Learning Opportunities—A service managed by the Maryland State Department of Education designed to expand the access of Maryland public school students through the delivery of high quality online courses. http://mdk12online.org/	15, 21, 26

OASES	CCPS designed and developed system designed to track and report on special education students. Also allows for completion of all required legal documents related to special education or 504 plans.	38, 43
MDK12 Digital Library	Resource site that site provides instant access to digital content to Maryland's Digital eLibrary Consortium patrons. http://maryland.lib.overdrive.com/255A3666-2C95-4B70-BBAB-031CBAC07050/10/252/en/Default.htm	21, 23
Reading A-Z	Reading A-Z is a web-based resource of printable teacher materials on guided reading, phonemic awareness, reading comprehension, reading fluency, alphabet, and vocabulary. The resources include professionally developed downloadable leveled books, lesson plans, worksheets, and reading assessments. http://www.readinga-z.com/ http://www.readinga-z.com/	22
Role-Based Security Policy	Rights to various applications and network resources are granted to users based on their role (job, position, etc.) instead of on an individual basis. This greatly simplifies the administrative process for creating user logins and ensures that mistakes are not made in granting rights incorrectly.	55
Safari Montage	A Video-On-Demand (VOD) solution for school districts that allows the management and distribution of digital media from a central location. http://www.safarimontage.com/	26
SASI	The student information system used by CCPS that helps administrators and teachers monitor, track, and report on student data and progress. http://www.pearsonschoolsystems.com/products/sasi/index.htm	35, 39, 41, 42, 43, 46, 47

SCWC	A CCPS designed and developed application for printing and transmitting transcripts for college admission and tracking courses taken by students.	39
SharePoint	A web-based collaboration and document management platform from Microsoft. It can be used to host web sites that access shared workspaces and documents, as well as specialized applications like wikis and blogs from a browser.	24, 26, 27, 41, 45, 46
Single-Point Authentication	A user log into the network one time and is granted access to appropriate resources/applications at the time of login based on their roles. Therefore, it is not necessary to login each time to each application that is used. It also simplifies administration.	55
SLM	Specialist in Library Media	31
SSL	Cryptographic protocols that provide secure communications on the Internet for such things as web browsing, e-mail, and other data transfers.	51
Study Island	Study Island is a provider of web-based state assessment preparation programs and standards based learning programs in preparation for the MSAs. http://www.studyisland.com/demoAsk.cfm?myState=MD	22
Thinkfinity.org	Thinkfinity.org is a part of Verizon Foundation's literacy, education and technology initiative whose goal is to improve student achievement in traditional classroom settings and beyond by providing free high-quality content and extensive professional development training. http://www.thinkfinity.org/	25
Thinkport.org	Thinkport.org is a free a free educational resource for Maryland educators, families, and communities from Maryland Public Television and Johns Hopkins University Center for Technology in Education. http://www.thinkport.org/default.tp	25
VSC	Voluntary State Curriculum--A document that aligns the Maryland Content Standards and the Maryland Assessment Program and will be available in a number of formats for teachers, central office staff, students, parents, and the other stakeholders. http://www.mdk12.org/instruction/curriculum/index.html	23
WAN	A network that covers a broad area—county, regional, and national boundaries.	18, 48, 51, 52, 55, 57
Web 2.0	A term describing World Wide Web technology and web design that aims to enhance creativity, information sharing, and, most notably, collaboration among users.	26

| Wiki | A web application that allows users to add and edit content. It also refers to the collaborative software used to create the web application. | 21 |

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