Camdenton R-III Schools
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District Technology Plan
2014-2017

Approved: April 14, 2014

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Introduction, Technology Planning Committee, Mission Statement

2014-2017

The Camdenton R-III School District is located in Camden County in the rural Central Missouri Ozarks and serves a population of more than 4,200 students, ranging over an area of more than 390 square miles. The population of the district continues to grow and currently has approximately 25,000 permanent residents. The community surrounding the Lake of the Ozarks has been one of the fastest growing areas in the state of Missouri.

The school district serves a unique community because of the geographic makeup of the area and the diverse economic mix of small business, industry and tourism. Students attending the eight Camdenton R-III school buildings come from nine small communities. More than 40% of the students qualify for free or reduced lunches.

Our district technology plan strives to ensure high student achievement for all students, including technology literacy sk lls. It promotes the effective integration of technology through curriculum development, professional development, the use of research-based instructional methods, equitable resources and a support system. This plan addresses the following areas:

> Student Performance
> Professional Development
> Existing Resources
> Technical Support, Hardware and Software
> Monitoring of Progress

This long-range education technology plan complies with the Telecommunications Act of 1996, E-rate Program, enabling our continued participation in the MOREnet Network Program. It fulfills the requirement by the Department of Elementary and Secondary Education that school districts have a long-range education technology plan that meets the updated Missouri Education Technology Strategic Plan goals.

The educational technology mission of Camdenton R-III Schools is to provide students and staff with the skills necessary to become leaders in our technology-based, global society. It embraces the concept of lifelong learning in an environment where the tools of technology support teaching and learning in all areas.

This educational technology must target the enhancement of student achievement, and will focus on identifying and developing technology solutions which have shown success in this effort. Thus, technology will be infused into the curriculum, improving student achievement through learner centered, interactive lessons that emphasize process, problem solving and inquiry.

Technology will be used to facilitate effective communication and promote collaboration. We will provide the appropriate resources necessary to ensure equitable educational opportunities for all students and to support the staff in efficiently completing the

administrative operations of the district. We will regularly offer effective staff development programs and timely technical support**.**

The Camdenton R-III School District Technology Committee is responsible for developing, disseminating, implementing, and evaluating the District's Technology Plan. The plan was collaboratively developed to guide policy and practice, and will be updated annually. It focuses on student academic success, using research along with proven teaching and learning principles to meet the needs of our district.

The Camdenton R-III School District Technology Committee is appropriate in size for our district. Representation is equitable, and appropriate to address the District's plan. This committee features a broad membership that includes teachers from all buildings, administrators, students, parents, board members, technology personnel, support staff, library/ media specialists, local business people, and other community members. Committee members act as representatives for their buildings, organizations, or areas, providing input and expertise. The superintendent responsible for Technology acts as facilitator for this committee that meets regularly.

Technology Planning Committee		
Member	**Position**	**Location**
Roma France	Asst. Superintendent for Data Analysis and Technology	Adinistration
Randal Cowen	Network Administrator/Technology Coordinator	Administration
Denise Dill	Teacher	Hurricane Deck
Terri Thompson	Computer Lab Educator	Hurricane Deck
Patty Case	Library Media Specialist	Osage Beach and Hurricane Deck
Anna Leezer	Teacher	Osage Beach
Sherry Marose		Osage Beach
Mindy Miller	Computer Lab Educator	Osage Beach
Erin Kaminski	Teacher	Osage Beach
Andria Hodge	Instructional Coach	Dogwood
Cheryl Hymes	Teacher	Dogwood
Jean Strolberg	Computer Lab Educator	Dogwood
Clark Brown	Process Coordinator	Hawthorn
Barney Irvine	Teacher	Hawthorn
Jackie Johns	Teacher	Hawthorn
Megan Jolly	Teacher	Hawthorn
Dawn Moore	Library Media Specialist	Hawthorn
Hannah Pitts	Teacher	Hawthorn
Denise White	Computer Lab Educator	Hawthorn
Carla Wilkins	Interventionist	Hawthorn
Kristin Eidson	Teacher	Oak Ridge
Tina Mruphy	Teacher	Oak Ridge
Tabitha Thompson	Library Media Specialist	Oak Ridge
Heather DeLaurent	Library Media Specialist	Middle School
Carolyn Dickerson	Computer Lab Educator	Middle School
Katie Dwiggins	Interventionist	Middle School
Will Hedrick	Teacher	Middle School

Chris Garstand	Teacher	High School
nIkki Hubbard	Teacher	High School
Sharon Moehle	Teacher	High School
Sheena Self	Library Media Specialist	High School
Todd Nicklas	Teacher	Horizons
Robb Platt	Para Professional	Horizons
Lynn Cramer	Teacher	LCTC
Deb VanLant	Secretary	LCTC
Gail White	Director	LCTC
Abram Morris	Student	High School
Ty Page	Student	Hurricane Deck
Cole Roam	Student	High School
Logan Thompson	Student	Hawthorn
Tiffany Duncanson	Parent	Osage Beach
Jim Jackson	Parent	High School
Rachel Taylor	Parent	Hawthorn
Jay Ahlemeyer	Technician	Administration
Tom Denvir	Technician	Administration
Elizabeth Hussey	Student Management System	Administration
Mark Mallahan	Technician	Administration
Mike Varner	Data Specialist	Administration
Steve Weber	Technician	Administration
Jason Horne	Interventionist	
Jenessa Dodson	Teacher	Dogwood
Sophia Colvin	Secretary	Interventions

Section

A

Camdenton R-III School District Technology Plan
2014-2017

Existing Resources

Sources:

- Infrastructure information gathered by the Technology Department and produced by the Network Administrator
- Computer and Lab information gathered by the Technology Department and produced by the Network Administrator using Technology Inventory Database.
- Multimedia Distribution System information gathered by the Technology Department and produced by the Network Administrator
- Presentation Equipment information gathered by the Technology Department and produced by the Network Administrator using Technology Inventory Database.
- Photographic Equipment information gathered by the Technology Department and produced by the Network Administrator using Technology Inventory Database.
- Communication information gathered by the Technology Department and produced by the Network Administrator.
- Student and teacher data retrieved from district data management software.
- Standardized longitudinal assessment data gathered from district web-based data warehousing program.
- Locally developed longitudinal common assessment data gathered from web-based programs and building level test management software systems .
- Surveys from the District website.

Introduction

In the past the Camdenton R-III School District has selected PC compatible hardware as its base platform. We determined that this platform offers more program diversity and will be the operating system that students will most likely be working with in the workplace. However, in specific areas, we have been re-integrating Apple machines, specifically iMACs and ipads. In addition, Android tablets have been added to the standardized hardware list.

All classrooms have at least one computer and many classrooms have multiple computers. All computers in the district are Internet connected and have some means of E-Mail . All Administrative computers are Internet connected and utilize several means of communication including E-Mail and shared data locations. Network storage is available via the R-3 App. The District supports both a wired and wireless network, public and private.

A listing of existing resources can be found in the spreadsheets located in Appendix A.

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B

Camdenton R-III School District Technology Plan
2014-2017

Technology Goal Areas

The technology plan goals provide direction for the district's use of educational technology to improve teaching and learning. These goals address our mission statement and are aligned to the District's Strategic Plan and have been correlated to the state education technology plan goals.

1. Student Performance: Develop and enhance quality educational/instructional programs to improve performance and enable student to meet their personal, academic and career goals.

    a. Provide quality interventions/enrichments for students in all subject areas
    b. Provide online district benchmarking to determine growth in student performance for state tested subjects
    c. Provide quality online services for parents to access student data (grade reporting, homework, discipline and attendance)

2. Professional Development: Recruit, attract, develop and retain highly qualified staff to carry out the District's mission, vision, and collective commitments.
    a. Provide training for faculty and staff on district purchased programs
    b. Train faculty and staff to gather and manipulate data
    c. Train faculty and staff on district purchased hardware
    d. Provide training on implementing research-based instructional technology strategies in the classroom
    e. Provide training for Technology staff

3. Technical Support, Hardware and Software: Provide and maintain appropriate instructional resources, support services and functional and safe facilities.
    a. Provide a technology-rich environment for students and staff, including mobile devices

    b. Provide additional wireless infrastructure to support mobile environment

    c. Provide Help Desk support for faculty and staff

    d. Provide adequate staff to support the growing number of devices.

    e. Provide adequate budget to maintain the infrastructure, replacement of devices and annual costs of online programs at industry standards

4. Monitoring of Progress on Attainment of Goals: Information gathering tools will be utilized for collecting, analyzing and reporting data to determine the effectiveness of leadership, school climate, resource acquisition, training needs, etc. to meet improvement plan goals.

    a. Collect data in a timely and efficient manner for collaboration and to make decisions on student learning activities

    b. Conduct regular walkthroughs, evaluations, etc. on use of technology

    c. Conduct annual needs assessment on hardware, software and training

    d. Conduct monthly evaluations of work order logs

    e. Provide annual update to the Board of Education

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C

Camdenton R-III School District Technology Plan
2014-2017

Student Performance

Student Performance Analysis – Needs Assessment

Appropriate data and information were used to identify the needs for student performance as it relates to the Standards, including technology skills

- Need to improve Mathematics and English/Language Arts scores, especially for subgroups
- Continuing need to provide quality interventions for students in all subject areas
- Need to collect student performance data in a timely and efficient manner for teacher collaboration, and to make decisions about student learning activities
- Need to provide students with practice for online assessments
- Need to provide parents with accurate and up-to-date information regarding their student's attendance, discipline, grade reporting and class work

Student Performance Goal and Objectives:

Develop and enhance quality educational/instructional programs to improve performance and enable student to meet their personal, academic and career goals.

1. Provide quality interventions/enrichments for students in all subject areas

    Action Steps:
    - Review student data to determine appropriate interventions/enrichments
    - Provide teacher training for technology-based interventions/enrichments
    - Administer and collect data from intervention/enrichments

- Analyze data to determine effectiveness of the intervention/enrichments

2. Provide online district benchmarking to determine growth in student performance for state tested subjects

   Action Steps:
   - Upload student rosters and information into online programs
   - Administer pre-test at the beginning of the year/unit/standard and post-test and the end of the instructional setting
   - Collect data from each administration of benchmarking unit
   - Review assessment data during collaboration times and provide feedback to Technology Department

3. Provide quality online services for parents to access student data (grade reporting, homework, discipline and attendance)

   Action Steps:
   - Provide information to parents concerning signup, technology requirements, consent forms, etc.
   - Create portal on the District's website
   - Continue to provide updates and general information about the portal to parents throughout the year
   - Host regularly scheduled meetings with building secretaries and building web teams to provide training and updates on the portal and other available access for parents

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D

Camdenton R-III School District Technology Plan
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Professional Development

Professional Development Analysis – Needs Assessment

Appropriate data and information were used to identify and list strengths and weaknesses for teacher preparation and delivery of instruction through technology-based resources

- Need for faculty and staff to be trained in District-purchased programs and hardware resources
- Need to train staff in implementing researched-based strategies
- Need for staff training in utilizing technology resources as teaching strategies
- Need for training on data manipulation
- Need for upgrade training for technology staff

Professional Development Goal and Objectives:

Professional Development: Recruit, attract, develop and retain highly qualified staff to carry out the District's mission, vision, and collective commitments.

1. Staff will receive instruction and training in the integration of technology into the curriculum through workshops provided on a regular basis.

   Action Steps:
   - Survey staff for levels of training needed
   - Provide training and review evaluation sheets for effectiveness of instruction of technology workshops
   - Conduct walkthroughs to observe and determine effectiveness of technology in the classroom

2. Train faculty and staff to gather and manipulate data

Action Steps:
- Survey staff for levels of training needed
- Provide training and review evaluation sheets for effectiveness of instruction of technology workshops
- Visit collaboration meetings to determine effective use of data
- Provide ongoing information to collaborative groups and building administrators
- Provide appropriate data to collaborative groups

3. Train faculty and staff on district purchased hardware

   Action Steps:
   - Survey staff for levels of training needed
   - Provide training and review evaluation sheets for effectiveness of instruction of technology workshops
   - Provide training to all new staff members at New Teacher Orientation

4. Provide training on implementing research-based instructional technology strategies in the classroom

   Action Steps:
   - Survey staff for levels of training needed
   - Provide training and review evaluation sheets for effectiveness of instruction of technology workshops
   - Conduct walkthroughs to observe and determine effectiveness of technology in the classroom and use of research-based strategies
   - Begin teacher pilot progam during the summer of 2014 with a select group of teachers implementing technology-based strategies in their classrooms

5. Provide training for Technology staff

   Action Steps:

   - Survey technology staff for levels of training needed
   - Provide training and review information with technology staff
   - Send to out of district trainings as necessary

Section

E

Camdenton R-III School District Technology Plan
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Technical Support, Hardware and Software

Technical Support, Hardware and Software – Needs Assessment

Appropriate data and information were used to identify and list strengths and weaknesses of the district's use of technology to support administration, data management and communication processes. Listed below are a few of the technology planning references used. The data compiled from these valid and reliable resources are listed below:

- Review of the district's management software with Technology staff and central office administrators
- Review of Technology Committee agenda items
- Resource logs of network administrator
- Inventory list of district's technology resources, including hardware and software
- Previous Technology Plan
- Review of Professional Development Needs Assessment regarding technology training
- Review of staff requests for training

- Need for comprehensive replacement cycle for District hardware and software
- Continued need for work order system to maintain quality customer service
- Need for additional staff to support the increased number of devices in the district
- Need for personnel designated to train staff on technology matters
- Need for budget resources to complete previously unfunded projects

- Need for outsourcing of programs developed by Technology Department which have continued to grow and require large amounts of time for upgrading and continued development
- Need for further development of the District's wireless infrastructure

Technical Support, Hardware and Software Goal and Objectives:

Technical Support, Hardware and Software: Provide and maintain appropriate instructional resources, support services and functional and safe facilities.

1. Provide a technology-rich environment for students and staff, including mobile devices

   Action Steps:
   - Review inventory list for hardware/software to be placed on replacement list
   - Consult with building and program administrators regarding hardware/software requests beginning in November of each year
   - Prepare technology budget for current year
   - After budget approval, order replacement hardware and with remaining money, order requested items on a priority basis

3. Provide additional wireless infrastructure to support mobile environment

   Actions Steps:
   - Conduct investigation to locate "dead" wireless spots within the buildings
   - Locate classrooms with high wireless network traffic
   - Budget for and obtain additional access points to bring wireless up to acceptable level
   - Install access points during summer
   - Re-evaluate traffic during first quarter to see if additional access points are required

4. Provide Help Desk support for faculty and staff

   Action Steps:
   - Assign technician to manage help desk
   - Publish notification to staff with help desk number for calling purposes
   - Maintain a log of all help desk calls
   - Evaluate purpose of calls to make decisions about training, staffing, etc.

5. Provide adequate staff to support the growing number of devices.

Actions Steps:
- Monitor technician to device ratio
- Interview and hire additional staff as work load requires to maintain an acceptable level

6. Provide adequate budget to maintain the infrastructure, replacement of devices and annual costs of online programs at industry standards
Action Steps:
- Evaluate technology needs during late fall for following year
- Review appropriate technologies for needs
- Gather technology requests from building
- Submit budget to Superintendent in February

Section

F

Camdenton R-III School District Technology Plan
2014-2017

Monitoring of Progress on Attainment of Goals and Objectives

Monitoring of Progress on Attainment of Goals and Objectives – Needs Assessment

In order to ensure that the Camdenton R-III School District's Technology Plan is effectively implemented to support the district 's mission and Strategic Plan's vision of sustained improvement in student achievement, teacher preparation, administration, resources, and technical support, the plan must be effectively disseminated, monitored and evaluated. A copy of the district Technology Plan is available online to all staff, students, and patrons of the district for review.

Monitoring Technology Plan activities is primarily the responsibility of the Technology Committee, district administration and technology staff. Other responsibilities for monitoring the plan can be found within the Action Plans of each section. Committees, including a subcommittee of the Technology Committee and representatives of the Professional Development Committee will meet on a regular basis to assess the progress of implementation of plan activities.

A formal annual evaluation of the district's technology plan is conducted each year with input from the Technology Committee. The evaluation is based upon meeting the goals and objectives as outlined in the plan. An evaluation report is presented to the Board of Education annually during the regular March board meeting.

- Need to gather annual data on the effectiveness of technology in the District
- Need to review technology policies on regular basis due to ever changing role of technology in schools

Monitoring of Progress on Attainment of Goals and Objectives:

Monitoring of Progress on Attainment of Goals and Strategies: Information gathering tools will be utilized for collecting, analyzing and reporting data to determine the effectiveness of leadership, school climate, resource acquisition, training needs to meet improvement plan goals.

1.   Collect data in a timely and efficient manner for collaboration and to make decisions on student learning activities

   Action Steps
   - Provide ongoing training for personnel responsible for collecting and entering the data
   - Review the programs which capture the data to ensure best quality
   - Meet with collaborative teams to determine data to be gathered
   - Provide Data Request Form so data is returned in a timely fashion

2.   Conduct regular walkthroughs, evaluations, etc. on use of technology

   Action Steps
   - Walkthroughs will be done by Assistant Superintendent, Network Administrator, building instructional coaches, principals, program directors
   - Review walkthrough data to make decisions for training, replacement, etc.
   - Review walkthrough data to determine effectiveness of the training

3.   Conduct annual needs assessment on hardware, software and training

   Action Steps
   - Survey staff to determine usage, needs, stats, etc.
   - Review data to make best decisions regarding hardware and software decisions

4.   Conduct monthly evaluations of work order logs

   Action Steps
   - Assistant Superintendent and Network Administrator will review work order logs to determine needs, problems, training

5.   Provide annual update to the Board of Education

   Action Steps
   - Technology report to begin annually at March board meeting
   - Technology Committee will review components of the Technology Plan at quarterly meetings

- Provide appropriate data to patrons via the District's website and other forms of communication

Appendix A

Existing Hardware Resources

School Totals

Virtual Computers: 88

Desktop Computers: 1437

Laptop Computers: 881

Tablet Computers: 330

        2736   :Total

Operating Systems:
Win XP   1407
Win 7   386
Win 8   580

To MS 2008 server

Android   229
Linux   34
Mac   46

Students   4481   51   Sending Students
Instructionial
Staff

Broadcast Studio   1
Classroom   353
Graphics Lab 1
Library   7
Lunchroom   1
Office   101
Other   98
PC Lab   14
Physics Lab 1
Science Lab 5

Building	EqType	EqCount	OS			
Dogwood	Virtual PC	2	Win 7 V-Space N-Computing X550			
Dogwood	PC	106	Win XP			
Dogwood	PC	16	Win 7			
Dogwood	Mac PC	2		Total PC:	124	
Dogwood	Laptop	83	Win 8			
Dogwood	Laptop	5	Win 7			
Dogwood	Laptop	8	Win XP	Total LP:	96	
Dogwood	Tablet Laptop	33	Android	NOTE		
Dogwood	Tablet Laptop	10	Win 8	Total Tab:	10	
Dogwood	FAX	5				
Dogwood	TV	36				
Dogwood	TV/VCR	1				
Dogwood	DVD/VCR	43				
Dogwood	VCR	18				
Dogwood	Scanner	33				
Dogwood	Scanner/Printer/Copier	7				
Dogwood	Color Inkjet Printer	58				
Dogwood	Color Laser Printer	4				
Dogwood	Laser Printer	36				
Dogwood	Digital Camera	16				
Dogwood	Video Camera	4				

Dogwood   Projector   39
Dogwood   Smart Projector   8

Dogwood   Smartboard   30

Dogwood   Document Camera 2

NOTE
20 Tablet are for Homeless students throughout the district

Computing Devices: 230

Student   864
Teacher
Para   26
Staff   20

Dogwood   Classroom   58
Dogwood   Library   1
Dogwood   Office 20
Dogwood   Other 25
Dogwood   PC Lab   2

Dogwood   Classroom   PC   65
Dogwood   Library   PC   3
Dogwood   Office Mac PC   1
Dogwood   Office PC   14
Dogwood   Other PC   6
Dogwood   PC Lab   PC   33
Dogwood   Classroom   Laptop   53
Dogwood   Library   Laptop   5
Dogwood   Office Laptop   13
Dogwood   Other Laptop   2
Dogwood   PC Lab   Laptop   23
Dogwood   Classroom   Tablet Laptop   5
Dogwood   Library   Tablet laptop 1
Dogwood   Office Tablet laptop 37

Building	EqType	EqCount	OS		
Hurricane Deck	PC	5	Win 7		
Hurricane Deck	PC	107	Win XP	Total PC:	112
Hurricane Deck	Laptop	8	Win 8		
Hurricane Deck	Laptop	4	Win XP	Total LP:	12
Hurricane Deck	Tablet laptop	2	Win 8	Total Tab:	2
Hurricane Deck	FAX	1			
Hurricane Deck	TV	5			
Hurricane Deck	DVD/VCR	18			
Hurricane Deck	VCR	6			
Hurricane Deck	Scanner	8			
Hurricane Deck	Scanner/Printer/Copier	2			
Hurricane Deck	Color Inkjet Printer	17			
Hurricane Deck	Color Laser Printer	2			
Hurricane Deck	Laser Printer	8		Total Prt:	27
Hurricane Deck	Digital Camera	12			
Hurricane Deck	Projector	21			
Hurricane Deck	Smart Projector	1			
Hurricane Deck	Smartboard	11			
Hurricane Deck	Document Camera	4			

Computing Devices: 126

Student 164
Teacher
Para 8

Staff   13

Hurricane Deck   Classroom   16
Hurricane Deck   Library   1
Hurricane Deck   Office 4
Hurricane Deck   Other 7

Hurricane Deck   Classroom   PC   97
Hurricane Deck   Library   PC   4
Hurricane Deck   Office PC   8
Hurricane Deck   Other PC   1
Hurricane Deck   Classroom   Laptop   8
Hurricane Deck   Office Laptop   2
Hurricane Deck   Other Laptop   1

Building	EqType	EqCount	OS	
Osage Beach	Virtual PC	1	Win 7	V-Space N-Computing X550
Osage Beach	PC	6	Win 7	
Osage Beach	PC	81	Win XP	Total PC: 87
Osage Beach	Laptop	3	Win 8	
Osage Beach	Laptop	1	Win XP	Total LP: 4
Osage Beach	Tablet Laptop	19	Android	
Osage Beach	Tablet laptop	2	Win 8	Total Tab: 21
Osage Beach	FAX	3		
Osage Beach	TV	16		
Osage Beach	DVD/VCR	25		
Osage Beach	VCR	3		
Osage Beach	Scanner	13		
Osage Beach	Scanner/Printer/Copier	2		
Osage Beach	Color InkJet Printer	18		
Osage Beach	Color Laser Printer	2		
Osage Beach	Laser Printer	5		Total Prt: 25
Osage Beach	Digital Camera	12		

Osage Beach	Video Camera	1
Osage Beach	Projector	19
Osage Beach	Smart Projector	1
Osage Beach	Smartboard	12
Osage Beach	Document Camera	8

Computing Devices:	112

Student	231
Teacher	
Para	9
Staff	11

Osage Beach	Classroom	19
Osage Beach	Library	1
Osage Beach	Office	6
Osage Beach	Other	7

Osage Beach	Classroom	PC	75
Osage Beach	Library	PC	4
Osage Beach	Office	PC	5
Osage Beach	Other	PC	3
Osage Beach	Classroom	Laptop	3
Osage Beach	Office	Laptop	1
Osage Beach	Classroom	Tablet Laptop	19
Osage Beach	Library	Tablet laptop	1
Osage Beach	Office	Tablet Laptop	4

Building	EqType	EqCount	OS	
Hawthorn	Virtual PC	12	Win 7 V-Space N-Computing X550	
Hawthorn	PC	28	Win 7	
Hawthorn	PC	116	Win XP	Total PC: 144

Hawthorn	Laptop	76	Win 8		
Hawthorn	Laptop	19	Win 7		
Hawthorn	Laptop	4	Win XP	Total LP:	99

| Hawthorn | Tablet laptop | 17 | Win 8 | | |
| Hawthorn | Mac Tablet Laptop | 1 | Mac | Total Tab: | 18 |

Hawthorn   FAX   1

Hawthorn   TV   33

| Hawthorn | DVD/VCR | 14 |
| Hawthorn | VCR | 31 |

Hawthorn   Scanner   22

Hawthorn   Scanner/Printer/Copier   5

Hawthorn	Color InkJet Printer	7		
Hawthorn	Color Laser Printer	7		
Hawthorn	Laser Printer	47	Total Prt:	61

| Hawthorn | Digital Camera | 10 |
| Hawthorn | Video Camera | 6 |

| Hawthorn | Projector | 42 |
| Hawthorn | Smart Projector | 3 |

Hawthorn   Smartboard   30

Hawthorn   Document Camera   2

Computing Devices: 261

Student	517
Teacher	
Para	8
Staff	13

| Hawthorn | Classroom | 37 |
| Hawthorn | Library | 1 |

Hawthorn   Office 6
Hawthorn   Other 24
Hawthorn   PC Lab   2
Hawthorn   Science Lab 1

Hawthorn   Classroom   PC   71
Hawthorn   Library   PC   10
Hawthorn   Office PC   4
Hawthorn   Other PC   7
Hawthorn   PC Lab   PC   47
Hawthorn   Classroom   Laptop   19
Hawthorn   Library   Laptop   62
Hawthorn   Office Laptop   13
Hawthorn   Other Laptop   2
Hawthorn   Classroom   Mac Tablet Laptop 1
Hawthorn   Classroom   Tablet laptop 7
Hawthorn   Office Tablet Laptop   3

Building	EqType	EqCount	OS		
Oak Ridge	Virtual PC	30	To MS 2008 server	V-Space N-Computing L330	
Oak Ridge	Virtual PC	7	Win 7	V-Space N-Computing X550	
Oak Ridge	PC	36	Win 7		
Oak Ridge	PC	121	Win XP	Total PC:	157
Oak Ridge	Laptop	47	Win 8		
Oak Ridge	laptop	2	Win 7		
Oak Ridge	Laptop	13	Win XP	Total LP:	62
LCTC	Tablet Laptop	21	Android		
Oak Ridge	Tablet Laptop	13	Win 8		
Oak Ridge	Mac Tablet Laptop	1	Mac	Total Tab:	35
Oak Ridge	E-Reader	1			
Oak Ridge	FAX	3			
Oak Ridge	TV	56			
Oak Ridge	DVD/VCR	46			
Oak Ridge	VCR	15			

Oak Ridge   Scanner   23

Oak Ridge   Scanner/Printer/Copier   6   1 - FAX

Oak Ridge   Color InkJet Printer 3
Oak Ridge   Color Laser Printer 6
Oak Ridge   Laser Printer 55   Total Prt: 64

Oak Ridge   Plotter 1

Oak Ridge   Digital Camera   7
Oak Ridge   Video Camera   7

Oak Ridge   Projector   43
Oak Ridge   Smart Projector   1

Oak Ridge   Smartboard   29

Oak Ridge   Document Camera 1

Computing Devices: 254

Student   612
Teacher
Para   6
Staff   13

Oak Ridge   Classroom   41
Oak Ridge   Library   1
Oak Ridge   Office 14
Oak Ridge   Other 5
Oak Ridge   PC Lab   2
Oak Ridge   Science Lab 1

Oak Ridge	Classroom	PC	88
Oak Ridge	Library	PC	10
Oak Ridge	Office	PC	20
Oak Ridge	Other	PC	4
Oak Ridge	PC Lab	PC	35
Oak Ridge	Science Lab	PC	1
Oak Ridge	Classroom	Laptop	7
Oak Ridge	Library	Laptop	47
Oak Ridge	Office	Laptop	4
Oak Ridge	Classroom	Tablet Laptop	2
Oak Ridge	Library	Tablet Laptop	29
Oak Ridge	Office	Tablet Laptop	3
Oak Ridge	PC Lab	Tablet Laptop	3

Building	EqType	EqCount	OS	
Middle School	Virtual PC	33	To MS 2008 server V-Space N-Computing L330	
Middle School	PC	10	Win 7	
Middle School	PC	142	Win XP	
Middle School	PC	34	Linux to MS 3008 Server	Total PC: 186
Middle School	Laptop	120	Win 8	
Middle School	laptop	14	Win 7	
Middle School	Laptop	10	Win XP	Total LP: 144
Middle School	Tablet Laptop	89	Android	
Middle School	Tablet laptop	11	Win 8	Total Tab: 100
Middle School	FAX	2		
Middle School	TV	72		
Middle School	DVD/VCR	42		
Middle School	VCR	34		
Middle School	Scanner	20		
Middle School	Scanner/Printer/Copier	6		
Middle School	Color Inkjet Printer	11		
Middle School	Color Laser Printer	13		

Middle School Laser Printer 24   Total Prt: 48

Middle School Plotter 1

Middle School Digital Camera 24
Middle School Video Camera 11

Middle School Projector 53

Middle School Smartboard 29

Middle School Document Camera 0

Computing Devices: 430

Student   661
Teacher
Para 8
Staff 20

Building		EqType	EqCount	OS	
Middle School	Classroom	PC	120		
Middle School	Graphics Lab	PC	24		
Middle School	Library	PC	10		
Middle School	Office	PC	15		
Middle School	Other	PC	3		
Middle School	PC Lab	PC	38		
Middle School	Classroom	Laptop	27		
Middle School	Library	Laptop	101		
Middle School	Office	Laptop	6		
Middle School	Other	Laptop	1		
Middle School	Classroom	Tablet Laptop	4		
Middle School	Library	Tablet Laptop	83		
Middle School	Office	Tablet laptop	3		

Building	EqType	EqCount	OS	
High School	Virtual PC	2	Win 7 V-Space N-Computing X550	
High School	PC	65	Win 7	
High School	PC	361	Win XP	Total PC: 426

High School Laptop   107   Win 8
High School Laptop   96   Win 7
High School Laptop   69   Win XP   Total LP: 272

High School Tablet Laptop 41   Android
High School Tablet laptop 14   Win 8   Total TAB: 55

High School E-Reader   116

High School FAX   8

High School TV   90
High School TV/DVD/VCR   1

High School DVD/VCR   107
High School VCR   2

High School Scanner   43

High School Scanner/Printer/Copier   15   3 - FAX

High School 3-1 inkjet printer   6
High School Color InkJet Printer 12
High School Color Laser Printer 18
High School Laser Printer 69   Total Prt: 105

High School Plotter 3

High School Digital Camera   56
High School Video Camera   42

High School Projector   76
High School SMART Projector   2

High School Smartboard   48

High School Document Camera 7

Computing Devices: 753
Student   1350
Teacher   94

Para   14
Staff   35

High School Classroom PC   267
High School Library   PC   16
High School Office PC   34
High School Other PC   9
High School PC Lab   PC   40
High School Physics Lab PC   26
High School Broadcast Studio   Laptop   1
High School Classroom Laptop   126
High School Classroom Mac Laptop 1
High School Library   Laptop   24
High School Office Laptop   80
High School Other Laptop   1
High School Classroom Tablet Laptop   13
High School Library   Tablet Laptop   33
High School Office Tablet Laptop   5

Building   EqType   EqCount   OS
LCTC Virtual PC   1   Win 7 V-Space N-Computing X550

LCTC PC   29   Win 7
LCTC PC   110   Win XP
LCTC Mac PC   21   Total PC: 160

LCTC Laptop   21   Win 8
LCTC Laptop   48   Win 7
LCTC Laptop   86   Win XP   Total LP: 155

LCTC Tablet Laptop   21   Android
LCTC Tablet Laptop   8   Win 8
LCTC Mac Tablet Laptop 21   Mac   Total Tab: 50

LCTC FAX   3

LCTC TV   5

LCTC DVD/VCR   9
LCTC VCR   5

LCTC Scanner   11

LCTC Scanner/Printer/Copier   2

LCTC 3-1 inkjet printer   2
LCTC Color InkJet Printer 27
LCTC Color Laser Printer   10
LCTC Laser Printer 21   Total Prt: 60

LCTC Digital Camera   55
LCTC Video Camera   74

HS   Plotter 4

LCTC Projector   18

LCTC Smartboard   14

LCTC Document Camera 2

Computing Devices: 365

                                    Student
Sending school students   Teacher
 (Macks Creek, Climax, etc.):   51   Para
                                    Staff

Camdenton R-III
Students
                                488
(Students already counted at the HS or HZ)

Instructional
Staff   7

LCTC Classroom   Mac PC   19
LCTC Classroom   PC   106
LCTC Office PC   2
LCTC Other Mac PC   2
LCTC Other PC   20
LCTC Classroom   Laptop   134

LCTC Classroom   Mac Laptop   1
LCTC Office Laptop   44
LCTC Classroom   Mac Tablet Laptop 21
LCTC Classroom   Tablet Laptop   27

Building	Room	EqType	Description
Agriculture	150	PC	Dell OptiPlex 760 Computer
Agriculture	150A	PC	Gateway E-2610D Computer
Agriculture	150A	PC	Levono 7269-D7U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
Agriculture	150B	Laptop	Levono Thinkpad 0578-82U
LCTC	150	PC	Dell Optiplex GX620 Computer
LCTC	150-1	Laptop	Dell Latitude D630 Laptop WiLab 1
LCTC	150-1	Laptop	Dell Latitude D630 Laptop WiLab 1
LCTC	150-1	Laptop	Dell Latitude D630 Laptop WiLab 1
LCTC	150-1	Laptop	Leveno Thinkpad Edge 0578-82U

Building	EqType	EqCount	OS		
Horizons	Virtual PC	0			
Horizons	PC	7	Win 7		
Horizons	PC	32	Win XP	Total PC:	39
Horizons	Laptop	37	Win 8	Total LP:	37
Horizons	E-Reader	40			
Horizons	FAX	2			
Horizons	TV	7			
Horizons	DVD/VCR	11			
Horizons	Scanner	6			

Horizons	Scanner/Printer/Copier	1	FAX
Horizons	Color Inkjet Printer	8	
Horizons	Color Laser Printer	1	
Horizons	Laser Printer	9	Total Prt: 18
Horizons	Digital Camera	7	
Horizons	Video Camera	2	
Horizons	Projector	7	
Horizons	Smartboard	6	
Horizons	Document Camera	0	

Computing Devices: 76

Student	82
Teacher	
Para	1
Staff	3

Horizons	Classroom	PC	15
Horizons	Office	PC	4
Horizons	Other	PC	3
Horizons	PC Lab	PC	17
Horizons	Classroom	Laptop	36
Horizons	Office	Laptop	1

Transportation	Laptop	4	Win XP
	PC	10	Win XP
	Tablet laptop	6	Win 7

61   Employees

3-YEAR RECOMMENDATIONS

DRAFT

Technology Recommendations
Camdenton R-III Schools
Technology Department
April, 2014

Table of Contents

Our District continues to grow and our goal is to provide reliable access to technology that is flexible enough to meet current challenges with quality worksmanship. Some challenges we are faced with are.

- Continually Dwindling budgets
- Insufficient staff to provide timeliness and quality of work
- New projects and buildings that have insufficient funding and support
- Existing projects that are suffering due to lack of staff time and funding
- Physical space constraints
- Time constraints; having access to enough devices to test students in timeframes allotted for testing.
- Access to information at a desk, on the go and between collaborative groups, diversity of needs and preferences.
- Management of hardware and software across a multi-platform environment.
- Training to use the tools provided to the fullest extent.

Needs and recommendations of Educators
- Microsoft Office (Widely used with a need to maintain version)
- Educators are willing to try free equivalent software.
- All Buildings 1:1.
- Yearbook, CSTN, CADD, Science and Business need hi power computing.
- Network, local, usb and email are being widely used for storage. A need exists to reduce any transfers to/from home computers.
- Majority support a remote computing environment for ease of access.
- Fewer textbooks
- More training, refreshers
- Easy access
- Projectors
- Blackboard type software

Current needs and recommendations of Technology
- Provide staff necessary to maintain equipment and quality of work.
- Support and train our Educators for the most effective use of Technology in Education.
- Maintain standards for hardware and software in use.
- Expand wireless to support the density of connections.

Project:

Computing devices

Goal:

To replace computers that are not meeting immediate needs in the district.

Criteria:

Replace computers in the district that have finished 7 years of service and older.

Solution:

Replace outdated computers.

Costs:

Summer 2014	Summer 2015	Summer 2016
$187,462	$161,280	$208,530

Project:

     Networking Equipment

Goal:

     To replace key points in the network. Begin support for density of connections and replace older networking devices to prevent future failures.

Criteria:

     Current equipment does not meet the needs for the density of connections in our environment.

Solution:

     Replace outdated equipment to support current and future needs.

Costs:

Summer 2014	Summer 2015	Summer 2016
$137,800.00	$67,900.00	$29,200.00

Project:

AV/SR. (Audio/Visual & Sound Reinforcement)

Goal:

To maintain AV/SR equipment used for instruction and activities.

Criteria:

Many AV/SR systems in use today are very old, some more than 14 years. Existing equipment is failing or has already failed. The failed portions need repair other systems need attention to extend their life and functionality.

Solution:

Replace Equipment.

Costs:

Summer 2014	Summer 2015	Summer 2016
$5,000	$28,800	$127,800

Project:

Intercom Equipment

Goal:

To maintain Intercom systems used for announcements, safety and security.

Criteria:

Current Intercom systems in use are old and outdated. Some systems are not capable of zone paging, phone integration or enhancements of any kind. Most buildings have some sort of bell schedule that requires the ability to page a portion of the building individually. These systems need to be evaluated, repaired and upgraded as needs change.

Solution:

Replace Equipment.

Costs:

	Summer 2014	Summer 2015	Summer 2016
	$28,000.00	$28,000.00	$14,000.00
Oak Ridge	Summer 2014		$14,000.00
LCTC	Summer 2014		$14,000.00
Middle School	Summer 2015		$28,000.00
Hawthorn	Summer 2016		$14,000.00

Project:

Telephone Equipment

Goal:

To maintain Telephone systems used for day to day calling, safety and security.

Criteria:

Our current phone system is well over 14 years old. This system currently lacks functionality available on newer systems. Managing and changing basic items requires special knowledge that does not allow for quick or cost-effective response. With the age and lack of functionality it is advised we begin to seek a replacement.

Solution:

Begin planning for replacement of outdated equipment.

Costs:

Summer 2014	Summer 2015	Summer 2016
$0.00	$0.00	$150,000.00

Project:
Security Cameras

Goal:
Maintain security camera systems for safety and security.
Criteria:
Security Cameras in use today have been installed over the last several years. Funding has primarily been provided between grants, local law enforcement and our district. Funding to fine-tune, repair and maintain these systems is non-existent. Without these key items we have built a system for failure.
Solution:
Begin planning to support this system.
Costs:

Summer 2014	Summer 2015	Summer 2016
$0.00	$0.00	$0.00

Project:

Servers

Goal:

Maintain, Repair and replace servers as-needed.

Criteria:

Servers today are barely meeting needs. All current servers are being utilized to the fullest extent. With changes planned to stop support for storage and other programs we hope to re-purpose 2 or more servers to extend their life until Summer 2016.

Solution:

Repurpose current servers and plan for future replacement.

Costs:

Summer 2014	Summer 2015	Summer 2016
$0.00	$0.00	$14,000.00

Project:
Wireless

Goal:
Provide capability to support the density of connections.
Criteria:
Wireless in use currently is geared for coverage, not density. Coverage allows for a wide area to have access. As we add wireless devices access points will begin to get overloaded resulting in slow, dropped or un-usable connections. We need to begin looking at enhancing this technology to support the number of devices in each classroom.
Solution:
Provide capability to support the density of connections.
Costs:

Summer 2014	Summer 2015	Summer 2016
$163,400.00	$92,000.00	$8,400.00

Summer 2014
Middle School   Gym Coverage $3000
High School Wireless coverage 79APs $79000
Middle School   Wireless coverage 58APs $58000
LCTC   Wireless coverage 22Aps $22000
HZ   Wireless coverage (Use moved Aps) $1400

Project start date: Summer 2014

Goal:

Provide adequate staff to meet the growing needs of technology in our schools.

Criteria:

As our district grows and urges the use of technology in education the needs for support change. In the past we have been able to meet the needs of our personnel in a timely manner. Our Crew of 1 Network Administrator and 4 Technicians has been outgrown by district needs.

Solution:

Bring back a Technology Coordinator position to help with supervision, planning and bridge the communication gap between Instructional Technology needs and purchasing.

Restore a Network Administrator position to a specialty of securing and maintaining inter-network communications and our valuable data-center.

Institute a Webmaster position to meet the growing needs of instant electronic communication.

Institute a 400:1 computing device to technician ratio to help meet a 24 hr. turnaround time for workorders.

Costs:

$(TBD)

Support and Process Changes

Over the years our Department has continually evolved to support Technology in our schools. We have went from a mixed platform environment (Apple and PC), recognizing the complications this was changed to a total PC environment and against recommendations back to a mixed platform. With the addition of the Android operating system to accommodate the needs for inexpensive research tools the management of our computing environment is even more complex.

In years past based on the dedicated work and direction of our previous Technology Coordinator, Nona Harrington, with support from previous Administration and Board our department has communicated and pursued the use of free open source solutions to meet district needs. Those solutions currently include:

Product support and alternative solutions:

- **Workorder system:**
    - Originally developed by Nona which has grown with us to cover needs both in Technology and Maintenance to organize the work-load of our staff and provide granular reporting tools.
    - We currently have software in the district that has basic workorder and routing functionality that would not cost the district directly to start using.
    - No similar software currently provides the flexible functionality and inter-operability between systems to make a seamless one-stop solution.
- **Transportation system:**
    - A spin-off of the workorder system that currently assists with tracking milage and drivers for reporting.
    - Software has been evaluated by Transportation in the past but no solution was found acceptably priced or completely meets their needs.
- **Sub-system:**
    - Originally developed to quickly and easily identify available substitutes.
    - Evolved into a checks and balance system.
    - Payroll claims to save our district thousands of dollars in sub payroll.
    - Estimated cost for similar software: $18,000 annually (Aesop as of 1-26-2012)
- **Firewall, Caching, Filtering:**
    - Initial Cost: $12,000

- Annual Estimated Cost: $4,500 (Based on current connection 100mb)
  - $6,902.50 (MOREnet quote 1-8-2013)
- No similar solution currently provides the flexible functionality and inter-operability between systems.

- **Inventory:**
  - We currently have software in the district that has basic inventory functionality that would not cost the district directly to start using.
    - Does not provide flexibility needed to track all the fields we currently collect information for.
  - No similar software currently provides the flexible functionality and inter-operability between systems.

- **Software/Hardware tracking, Software Distribution:**
  - Initial costs: $103,400
  - Annual Estimated costs: $25,850 @ 25% (Kace 2-5-2008)
  - No solution currently provides the interoperability to determine purchased software based on inventory records and distribute current licensed software to the desktop.

- **Intrusion detection, Intrusion Prevention:**
  - Average Initial Costs $54,495
  - Average annual costs:$13,623

- **Building maps:**
  - No product currently found on the market provides the custom functionality this solution provides.

- **Update management:**
  - This is a free technology from Microsoft and Apple.

- **Storage:**
  - Annual Cost: $15,740 based on Google Drive w/Cloudlock security

- **Disk-based backups:**
  - Initial costs: $36,367.00
  - Annual Costs: $9,091.75

Total Initial costs to replace: $240,002.00

Annual costs: $83,804.75

Systems support and alternative solutions:

- **Telephone system support:**
  - Estimated 1 workorder phone related per day with an average of 1 man hour.
  - Current Annual Cost $3,402.00
  - Estimated Outsource cost: $22,680.00
  - ($19,278.00 increase)

- **AV/SR system support:**
  - Estimated 20 man hours per event/repairs @ 10 events per year. (200 man hours)
  - Current Cost: $5,000
  - Estimated Cost: $50,000 annually
  - ($45,000 increase)
- **HVAC support:**
  - Estimated 40 hours annually
  - Current Cost: $1,160.00
  - Estimated Cost: $7,000.00
  - ($5,840.00 increase)
- **Cable plant locating services**:
  - Estimated 20 hours annually
  - Current Estimated cost: $600.00
  - Estimated Cost: $1,800.00
  - ($1,200.00 increase)
- **Intercom system support:**
  - Estimated 20 hours annually
  - Current Estimated cost: $600.00
  - Estimated Cost: $3,000.00
  - ($2,400.00 increase)
- **Advanced logging:**
  - Estimated 192 hours annually
  - Current Estimated cost: $480.00
  - Estimated Cost: $2,000.00

  Increase to reduce in-house support: $75,718.00

Technology Comparison 2005-2012

2005:

- No new High School
- Hardware Budget $317,470.00
  - PC Replacement: $263,945.00
  - Network Upgrades: $12,180.00
  - Other Instructional Technology/Printing: $41,345.00
- Linda and I did all the ordering and Purchase Orders.
- Minimal to no in-house support for:
  - AV/SR systems
  - Intercom systems
  - Cable plant Locating
  - HVAC

- o Telephone systems
- No sub-system
- No disk-based backups
- No advanced wireless system
- Minimal Video surveillance
- Minimal Door Entry systems
- No Fire/Burg alarm support
- Department based inventory
- No advanced logging
- Personnel:Device:workload
  - o 4 personnel 1:313:750
  - o 1,252 computing devices
  - o 3,000 workorders annually

2012:

- New High School
  - o 1 additional building to support and maintain.
- Hardware Budget $259,477.00
  - o Network Upgrades: $0.00
  - o PC + Virtual: $171,877.00
  - o HS Broadcast + A/V Upgrade/Repairs: $11,100.00
  - o Other Instructional Technology/Printing: $76,500
  - o Total Recommended expenditures before cuts: $613,218.00
    - ▪ Includes recommendations for 1:1 and network upgrades.
- We evolved by
  - o Pushing web updates to Roma
  - o Pushing PO/ordering to Ginger
  - o Pushing E-Rate to Roma
- The addition of the High School added lots of new technology and we were asked to help with these technologies. We built relationships with engineers, the installing companies and their support techs eventually evolving to take on these services to enable our one-stop concept.
  - o AV support became an expectation for support personnel at every event.
  - o Intercom support
    - ▪ In order to integrate systems like the paging feature used from phone to intercom daily at the High School. This was not by design it was brought about by our Department coordinating the integration.

- Most systems today readily integrate with telephone and networks making it necessary to coordinate and check compatibility with existing systems.
  - Cable Plant Locating
    - As Installing contractors move on to retirement and new jobs the knowledge of where cables are located is dwindling.
    - Keeping adequate maps and locating cables correctly was initially started by Maintenance and is now a shared duty but still inadequate.
  - HVAC
    - With the addition of the new High School.
      - 3 new servers
      - 4 essential network controllers
    - Support was inherited to maintain these computer-based systems.
    - Additionally with complications between programming and equipment controls we were soon deeply involved in helping maintain this system.
  - Telephone systems
    - The addition of the new High School brought about the need to seek a telephone solution. As phone systems have evolved they are more computer and network based. Josh Noble and I set out learning what we could to help the district select and integrate this technology.
    - It became expected of us to set up phones as we setup computers after rooms were put back together in the summers. Ultimately adding to our one-stop support concept.
- Sub-System
  - Originally designed for Maintenance to integrate into the workorder system and allow feedback and information to be kept on substitute custodians.
  - With the retirement of Diane Karakas we were asked what can be done about the databases kept for substitute information. We evolved the sub-system to handle these new needs.
  - Payroll asked we develop more checks and balance features bringing us to where it is today.
- Disk-based backups
  - With dwindling budgets, expensive and slow tapes we developed a custom solution for seeking network changes and

backing them up to fast disks for quicker backup and recovery time.

- Wireless systems
  - o Back in our Novell days wireless was an emerging technology that was quickly changing. Today wireless is an expectation. We have deployed and manage a central controller with 145 access points and the need to grow it on a massive scale is just around the corner.
- Video Surveillance
  - o Not all systems are completely network based but is expected that personnel can access them via the network forcing the need to integrate them into our computing environment. Today we are over 13 servers and 236 cameras, most of which are completely network based.
- Door Entry systems
  - o Another item that is not entirely network based but closely integrated into our computer and network systems requiring occasional support.
- Fire/Burglar alarm systems
  - o With changes in Maintenance personnel, thinking it was temporary, our department inherited assisting with Fire alarm troubles and maintaining codes to burglar alarms.
  - o With the construction of the High School complications arose between our private phone system and integration with fire alarms. We helped resolve those issues further tying us into this technology.
- Department based inventory
  - o Development of online workorder systems lead to the ability to track and maintain inventory online and tightly integrate those systems for planning, state and federal reporting.
  - o Today we have adapted the base system to meet the needs for District and After School Services Inventory and reporting needs.
- Advanced logging
  - o In order to reduce burden of analyzing individual recources this was developed to centralize logs and analyze recources for successful and secure operation.
- Personnel:Devices & Workload
  - o 2,435 computing devices and increasing rapidly. 49% growth
    - ▪ Unfortunately with my present workload I do not currently support computing devices. Mark currently

has been assigned to surveillance systems essentially taking both of us out of the ratio for device support.

- 3 personnel FTE:Devices 1:608
  - DESE recommendation 1:250 FTE:Devices
    - 2012 support 70% over DESE recommendation
  - Our recommendation 1:400
    - 2012 support 51% over our recommendation
  - Present day 2834 computing devices with additional not yet counted.
    - Buildings individually are attempting to achieve 1:1 without support being added.
    - 14% increase in computing devices over the last year alone.
    - Resulting in 1:708 staff:devices current day.
  - Workload
    - 5 personnel 1:1,242
    - Our recommendation 1:750
      - Current workload 40% over recommendation
    - 6,211 workorder annually
      - 60% increase in workload

Current Process Benefits

- Ability to custom tailor, automate and adapt portions of these solutions.
- One-stop shop for all technology-related issues
- No educator should need to worry about whom to call for what item.
- We have enabled an environment that no matter what your need is, Technology, Maintenance, Transportation, Inventory we can help oversee that requests get to where they need to be and resolved appropriately.
- Tracking down to the invoice and preventing improper invoicing by outsourced vendors.

Based on current staffing and funding in order to reduce workload and return support to our primary focus of the instructional technology in place today we will make our best effort to keep these items running as-is but will receive minimal to no support or future progress.

- Dedicated phone support
- Security
- Virtual Computing (RDP)
- Android

- Apple
- Inventory

These items will no longer receive support. Responsibility for these items will be turned over to Principals/Directors and all work related to these areas will be outsourced or similar programs will need to be purchased to replace existing systems.

- Sound Reinforcement
- Intercom
- Telephone Systems
- Door Entry Systems
- Map System
- HVAC support
- Sub-System
- Transportation System
- Smartboard Installs
- Email
- Network Storage