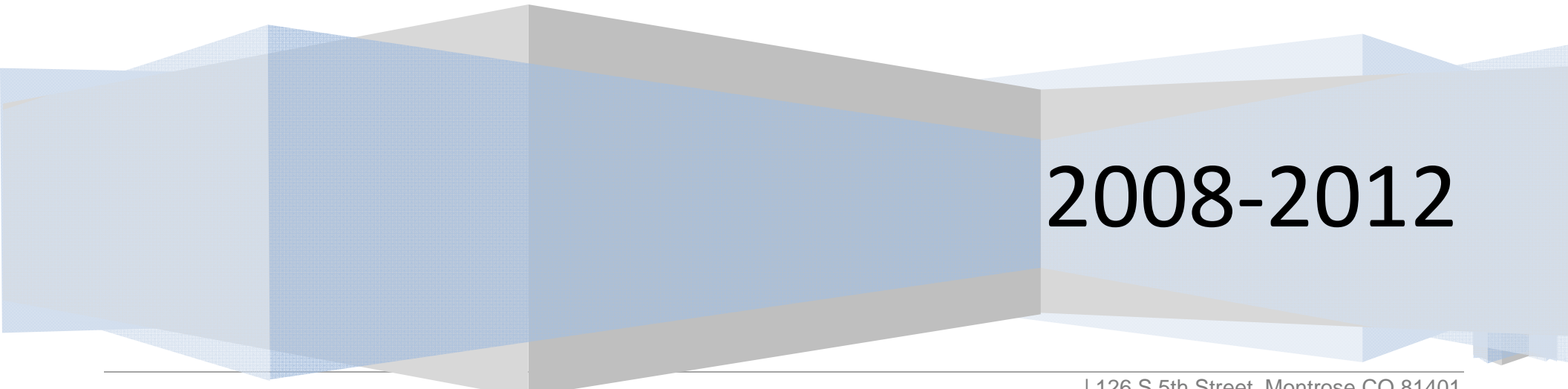


MCSO RE-1J Technology Plan

Submitted by:

Kirk Henwood, Director of Instructional Services



2008-2012

A. Needs Assessment

Montrose County School District RE-1J (MCSD) has made significant progress in achieving the goals set forth in our previous ET-IL technology plan. That plan included goals in the areas of Professional Development for all staff with regards to the use and understanding of technology; development of an infrastructure including quality control and maintenance; development of a district wide network connecting schools and administrative offices; as well as the implementation of effective data management systems.

Professional Development opportunities included using Microsoft Office products, Infinite Campus grade book, messenger, and data cubes. Professional Development opportunities were based on providing varied but specific opportunities for staff to learn and utilize the current technology in the district. These opportunities have been implemented as an on-going process. This professional development includes learning to use the student information system we have adopted under the previous ET-IL plan, as well as the new 2007 Microsoft Office Suite, and weblockers for long term archival storage of files. Montrose County Schools has also worked to create an effective and healthy infrastructure for computing and supporting the district wide use of technology. The server/router infrastructure has been evaluated and updated in conjunction with the networking of the infrastructure.

Needs Assessment Results:

Needs assessments were conducted in a number of different formats. First, discussions with IT department employees and district tech facilitators were conducted in order to develop an understanding of the institutional history of technology within MCSD. Based on that information, an online survey was developed for teachers and students within our school district in order to assess the needs and future direction of our technology plan. This online survey included questions that reflected critical thinking, problem solving, digital citizenship as well as the use of technology in our schools and classrooms. While the needs assessment does not include the acquisition of 21st Century learning skills, it was designed to influence and integrate our district's school improvement and accreditation plan. Professional development for teachers and direct instruction of students regarding informational literacy and the use of technology is an integral part of our ETIL plan.

Key Results of Online Survey - (1=Very Low, 2=Low, 3=Neutral, 4=High, 5=Very High):

- Teachers comprised 41.5% percent of total respondents
- 53.7% of respondents considered themselves power-users (able to teach others)
- 78% of respondents considered the incorporation of technology as an instructional tool being very valuable
- 76% considered technology valuable when considering how students learn
- This contrasts with only 50.10% of respondents feeling comfortable in being able to use technology in instruction

One major challenge in the implementation of our findings is the reduction in available funds for technology and professional development to improve 21st century learning skills while at the same time targeting the areas of low student improvement of math and reading in our district.

The current technological infrastructure within MCSD includes 100 Mbps of fiber and 1,000 Mbps with Cisco VoIP lines. Current routers were purchased in 2001 and the age and rotation of routers and switches will be included in our infrastructure rotation in order to be 802.1x compliant over the next 5 years.

B. Goals, Objectives, and Strategies:

ETIL Goals:

MCSD Technology Goals are:

- Focus on the integration of 21st Century learning skills into classroom instruction and learning in order to increase student engagement and achievement.
- Develop and maintain a technology infrastructure that allows a greater access to information thereby necessitating a greater need for the integration of informational literacy in technology
- Move end-user technology into the classroom for learners and teachers thereby creating a platform for the use of 21st Century learning skills.

How ETIL Goals support district academic objectives:

- MCSD learning objectives are focused on increasing student K-12 proficiency in reading and math.
- One of the primary objectives of the MCSD ETIL plan is the integration and implementation of 21st Century learner standards in the classroom.

Secondary objectives include:

- Development of an articulated K-12 technology curriculum that includes media literacy, equitable access to information, critical thinking regarding the use and integration of information as well as inquiry based problem solving
- Development of a long-range professional development plan involving teachers acquiring and using 21st Century learning and teaching skills in the classroom.
- Development of assessment measures for teachers and students to demonstrate 21st Century skill competencies over specific time intervals.

Strategies for implementation:

- The creation of a district level 21st Century leadership team
- Identification and implementation of a specific number of 21st Century learning-teaching practices to be supported through the district professional development program
- Development and implementation of a 6 year computer, server, and router rotation schedule aligned with district budget for building level technology procurement

C. Collaboration and Integration

- The Assistant Superintendent of Curriculum and Instruction oversees technology, accreditation, federal programs, curriculum and instruction. Within the department, there is a Director of Instructional Services and a federal programs administrator. The Director of Instructional Services oversees technology, the writing and implementation of the ETIL plan, managing Erate, and coordinating curriculum and professional development in these areas. The Federal Programs administrator oversees all Federal programs including Title II-D as a part of the larger consolidated federal grant application.
- The Assistant Superintendent of Curriculum and Instruction facilitates collaboration through meetings involving team members from curriculum, instruction, assessment, federal programs, and technology. The design of these meetings is to allow for collaboration and integration of programs and initiatives. Department directors and administrators are responsible for adhering to the common objectives within the larger department.
- Technology and information literacy are integrated throughout district curricula, through state-wide technology and information literacy standards. Classroom teachers are responsible for and encouraged to utilize technology throughout their instructional strategies. These instructional strategies are identified and supported by the office of the district Data and Literacy Coordinator and are based on current best-practice research. One component of the curriculum instruction assessment and technology meetings is the discussion of coordinated efforts among the various departments under the Assistant Superintendent of Curriculum and Instruction.

D. Professional Development

- In the spring of 2006, MCSD developed and implemented a system for long-range staff development planning. Part of that long range planning included the development of a professional development task force and a summer symposium targeted at meeting the professional development needs of teachers within the district. Since that time, summer symposium courses have included Beginning MS Office Word, PowerPoint and Excel. Additional classes on Contribute for web page design and NWEA data analysis for classroom teachers have been offered.

- A technology proficiency level for teachers is a new conversation which is a part of the 21st Century learning skills discussion within our district. As the district reviews and revises long term professional development plans to include these skills, proficiency assessments for both teachers and students are being designed. Specifically professional development courses for teachers are being formulated based on the needs assessment results which reference professional development.

E. Technology Infrastructure and Support

- MCSD's basic technology infrastructure includes CAT5 wiring, VoIP, fiber-optic connections, T1 lines and Cisco routers and switches. There are terminal servers in some buildings with a district level hub in the administrative main offices. Basic communications include VoIP and T1 lines interfacing with computers.
- In order to provide adequate telecommunications internet and network services, the IT Dept. will need to update end of life routers and switches, fiber lines, servers and CAT5 wiring. As a part of this upgrade, our goal is to upgrade switches to 802.1x standard in order to provide continued internet and network support.
- Assistive technologies will be supported through our MCSD Staff proficiency standards, and the accompanying professional development which will support and prepare end users. A component of this will require professional development for IT staff in order to train and assist end-user populations

F. Policies and Procedures

- Summer of 2008 revised Technology User Agreement for staff was developed and implemented. Staff User agreement will carry for 2 years, with revisions occurring every two years and staff being required to read and sign every 2 years.
- Summer of 2008 revised technology User Agreement for students was developed and implemented. Students will be asked to sign new user agreements when they move from elementary school to middle and from middle school to high school. They will also be required to sign revised user agreement forms as they are produced.
- Review current MCSD school board policies with regards to technology in the district and its uses. Revise necessary board policy to reflect current technology use policies.
- Procurement policies and approved equipment will be reviewed yearly, and approved equipment will be posted on school district web site, and disseminated to tech facilitators.

G. Budget

Proposed GL Accounts	Proposed Descriptions	Projected Budget	Allocation Reasoning
10.745.00.2845.0320.000.0000.00.00.00.	IT Purchased Services	\$ 5,800.00	
10.745.00.2845.0340.000.0000.00.00.00.	IT Purchased Technical Services	\$ 15,000.00	IT Support, IT Services, smartnet (warranties), DNA, technical support
10.745.00.2845.0430.000.0000.00.00.00.	IT Repairs and Maintenance	\$ 30,000.00	IT Maintenance, recycling, IT Repair, Deeply Digital, One Track
10.745.00.2845.0531.000.0000.00.00.00.	IT Telephone and Fax Services	\$ 4,500.00	IT cell phones
10.745.00.2845.0534.000.0000.00.00.00.	IT Online services	\$ 30,000.00	T3, Montrose Internet, Bresnan, Firstview, Sopris Surfers, Infinite Campus, 8e6
10.745.00.2845.0535.000.0000.00.00.00.	IT Wide Area Network	\$ 50,000.00	Frame Relay or leased fiber, wireless
10.745.00.2845.0581.000.0000.00.00.00.	IT In-State travel	\$ 6,000.00	IT Travel (TIE, CASE), Training
10.745.00.2845.0582.000.0000.00.00.00.	IT Out-of-State travel	\$ 2,000.00	Training (CIC)
10.745.00.2845.0610.000.0000.00.00.00.	IT General Supplies	\$ 10,000.00	IT Supplies, Office Depot, Home Depot, cabling, patch cables,
10.745.00.2845.0650.000.0000.00.00.00.	IT Electronic Media	\$ 3,000.00	Flash drives, Hardrives, Document Cameras, Projectors, iPods
10.745.00.2845.0655.000.0000.00.00.00.	IT Software	\$ 15,000.00	Microsoft Software, Administrative, voice mail, support and protection software, Desktop Authority
10.745.00.2845.0735.000.0000.00.00.00.	IT Non-Capital Equipment <5,000.00	\$ -	computers, phones, internal technology printers, computers, wireless
10.745.00.2845.0810.000.0000.00.00.00.	IT Dues and Subscriptions	\$ 1,500.00	Infotech, Rotary, eSchool News, Kiwanis
10.745.00.2845.0583.000.0000.00.00.00.	IT Mileage Reimbursement	\$ 150.00	Tech support mileage reimbursement

Totals \$ 172,950.00

Capital Expense Budget

Computers	\$75,200.00
Routers	\$53,200.00
Servers	\$3,300.00
Switches	\$20,000.00
Totals	\$ 151,700.00
Budget	\$ 150,000.00
	\$ (1,700.00)

This cost reflects the expenditure for the second half purchase of equipment beginning in the 08-09 school year. In subsequent years, the capital budget will balance at \$150,000.00.

Technology Rotation and Budget 2008 – 2013

School	2007-2008			2008-2009			2009-2010			2010-2011			2011-2012			2012-2013		
	Equipment		Costs	Equipment		Costs	Equipment		Costs	Equipment		Costs	Equipment		Costs	Equipment		Costs
	Type	Amount		Type	Amount		Type	Amount		Type	Amount		Type	Amount		Type	Amount	
CES				R	1	\$7,600.00				S	1	\$3,300.00				C	35	\$28,000.00
				C	34	\$27,200.00				SW	2	\$8,000.00						
JES				C	38	\$30,400.00	R	1	\$7,600.00				S	1	\$3,300.00			
							SW	2	\$8,000.00									
OES	C	38	\$30,400.00				R	1	\$7,600.00	S	1	\$3,300.00						
							SW	2	\$8,000.00									
OGES				R	1	\$7,600.00	S	1	\$3,300.00									
				C	30	\$24,000.00												
NES	C	29	\$23,200.00	R	1	\$7,600.00							S	1	\$3,300.00			
													SW	3	\$12,000.00			
PES				R	1	\$7,600.00							SW	1	\$4,000.00			
				C	29	\$23,200.00												
CMS				R	1	\$7,600.00	C	40	\$32,000.00							S	2	\$6,600.00
																SW	2	\$8,000.00
CTMS				R	1	\$7,600.00	C	42	\$33,600.00	S	1	\$3,300.00				SW	2	\$8,000.00
OMS	C	22	\$17,600.00	R	1	\$7,600.00	SW	1	\$4,000.00	S	1	\$3,300.00				SW	1	\$4,000.00
MHS				R	1	\$13,700.00				C	72	\$57,600.00	SW4 506	1	\$25,000.00	IN	1	\$3,000.00
										SW	2	\$8,000.00	S	4	\$13,200.00	SW	2	\$8,000.00
OHS				R	1	\$7,600.00				C	23	\$18,400.00				SW4 506	1	\$25,000.00
										S	2	\$6,600.00						
ECC							R	1	\$7,600.00	SW	1	\$4,000.00	SW	1	\$4,000.00			
							C	12	\$9,600.00									
Building Level Admin																C	73	\$58,400.00
*Admin							R	4	\$30,400.00	SW	2	\$8,000.00	C	97	\$77,600.00			
										SW-R	1	\$20,000.00						

Technology Rotation and Budget 2008 – 2013 Totals

Totals	2007-2008 (2013-2014)			2008-2009 (2014-2015)			2009-2010 (2015-2016)			2010-2011 (2016-2017)			2011-2012 (2017-2018)			2012-2013 (2018-2019)		
Computers	C	89	\$71,200.00	C	131	\$104,800.00	C	94	\$75,200.00	C	95	\$76,000.00	C	97	\$77,600.00	C	108	\$86,400.00
Routers	R	0	\$0.00	R	9	\$74,500.00	R	7	\$53,200.00	R	0	\$0.00	R	0	\$0.00	R	0	\$0.00
Servers	S	0	\$0.00	S	0	\$0.00	S	1	\$3,300.00	S	6	\$19,800.00	S	6	\$19,800.00	S	2	\$6,600.00
Switches	SW	0	\$0.00	SW	0	\$0.00	SW	5	\$20,000.00	SW	7	\$28,000.00	SW	5	\$20,000.00	SW	7	\$28,000.00
Switches w/Router	SW-R	0	\$0.00	SW-R	0	\$0.00	SW-R	0	\$0.00	SW-R	1	\$20,000.00	SW-R	0	\$0.00	SW-R	0	\$0.00
SW4506	SW 4506	0	\$0.00	SW 4506	0	\$0.00	SW 4506	0	\$0.00	SW 4506	0	\$0.00	SW 4506	1	\$25,000.00	SW 4506	1	\$25,000.00
Intercom Systems	IN	0	\$0.00	IN	0	\$0.00	IN	0	\$0.00	IN	0	\$0.00	IN	0	\$0.00	IN	1	\$3,000.00
Totals			\$71,200.00			\$179,300.00			\$151,700.00			\$143,800.00			\$142,400.00			\$149,000.00

C= Computer	\$800.00
R= Router	\$7,600.00
S=Server	\$3,300.00
Sw=Switch	\$4,000.00
SW-R= Combo	\$20,000.00
SW4506	\$25,000.00
IN=Intercom System	\$3,000.00

H. Action Plan

Tech Action Plan Matrix

Management Plan: The following is a flexible scope and sequence of the three year district technology implementation plan. The IT department, tech coordinators, Assistant Superintendent, and chief financial officer will help to facilitate communication and offer advice and plan adjustments.

Person or department accountable	Specific Topics	Staff or building to be Targeted	Dates 2008-2009	Dates 2009-2010	Dates 2010-2011
Henwood	Discussion and initial implementation of Montrose County School District RE-1J- 3 year technology plan	Tech. Department, Tech facilitators, Principals, Dr. Solow (Assist. Super), K. Slater(CFO)	Aug 08	Bi-yearly Review	Bi-yearly Review
Henwood	Implement district wide action research matrix(Calhoun, 2002) to survey and initiate systemic approach to district and building level technology plans	Principals, Tech Coordinators, Tech. Department, District Cabinet	Complete by Sept. 1, 2008	Review yearly	Review yearly
Henwood	Develop systemic District Technology vision/mission based on matrix results.	District Technology Improvement Team	Complete by Oct. 1, 2008	Review May 2009	Review May 2010
Henwood	Review results from AR matrix with tech coordinators and principals, outline broad scope of District Technology Vision and 3 year district technology plan.	District Technology Improvement Team, Tech. Department, Tech Coordinators, Principals	October Tech. Facilitator/Admin meetings	Possible Refresher	Possible Refresher
Henwood/ Rice	Publish quarterly Technology update newsletter to be distributed district-wide regarding progress on District level initiatives and major upcoming projects.	District wide Tech. Facilitators, Administrators	August November February May	August November February May	August November February May

Henwood Tech. Department	Write and ratify Montrose County Schools District Tech. plan. Share plan with building level admin and tech facilitators	Tech Department, Cabinet, Admin, Tech facilitators (listed in hierarchical order for ratification)	November 08	Ongoing	Ongoing
Henwood/ Building level tech facilitator, principal	Meet with individual buildings to outline building level 3 year technology plans	Principal and tech facilitator	Initial meeting August 2008- Nov. 2008	Review and refine yearly	Review and refine yearly
Henwood	Set up tech plan meetings with secondary schools	MHS OHS (Include Principal and tech facilitator)	Nov. 2008	Review and refine yearly	Review and refine yearly
Henwood	Set up tech plan meetings with middle schools	CMS CtMS OMS (Include Principal and tech facilitator)	Nov. 2008	Review and refine yearly	Review and refine yearly
Henwood	Set up tech plan meetings with elementary schools.	CES,OGES, PES, NES, JES, OES, ECC (Include Principal and tech facilitator)	Nov. 2008	Review and refine yearly	Review and refine yearly
Henwood	Meet with Tech Department to discuss alignment with building tech plans and determine parallel professional development, purchasing rotations	Principal	Nov. 2008	Review and refine yearly	Review and refine yearly
Henwood	Review implementation and progress of district technology plan	Self, District Technology Improvement Team	Dec. 2008	Yearly	Yearly
Henwood	Convene district technology team to review the year's implementation and plan for following year	Self, District Technology Improvement Team	May 2008	Yearly	Yearly

I. Evaluation

- Walk-throughs to evaluate 21st Century learning instruction
- Evaluation of the above described plan includes a scheduling and monitoring phase of the action plan matrix. This responsibility will fall specifically on the Director of Instructional Services to ensure timelines